Alliant Energy Corporate Services
Legal Department
319-786-4505 – Phone
319-786-4533 – Fax

Kent M. Ragsdale
Managing Attorney - Regulatory

Interstate Power and Light Co.
An Alliant Energy Company

Alliant Tower
200 First Street SE
P.O. Box 351
Cedar Rapids, IA 52406-0351

Office: 1.800.822.4348
www.alliantenergy.com

October 25, 2011

Dr. Burl W. Haar
Minnesota Public Utilities Commission
121 Seventh Place East, Suite 350
St. Paul, MN 55101-2147

RE: Interstate Power and Light Company
Docket No. E,G999/CI-11-852
Minnesota Renewable Energy Cost Impact Report

Dear Dr. Haar:

Enclosed for eFiling with the Minnesota Public Utilities Commission (Commission), please find Interstate Power and Light Company's Minnesota Renewable Energy Cost Impact Report to comply with Minn. Stat. §216B.1691, subd. 2e, and the Commission's *Revised – Notice Establishing Docket and Filing Instructions* issued on October 17, 2011 in the above-referenced docket.

Copies of this filing have been served on the Minnesota Department of Commerce, Division of Energy Resources, the Minnesota Office of Attorney General – Residential and Small Business Utilities Division, and to all parties on the attached service list.

Very truly yours,

/s/ Kent M. Ragsdale

Kent M. Ragsdale
Managing Attorney - Regulatory

KMR/tao
Enclosure

cc: Service List

STATE OF MINNESOTA

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Ellen Anderson	**Chair**
David Boyd	**Commissioner**
J. Dennis O'Brien	**Commissioner**
Phyllis Reha	**Commissioner**
Betsy Wergin	**Commissioner**

IN THE MATTER OF UTILITY RENEWABLE ENERGY COST IMPACT REPORTS REQUIRED BY MINNESOTA STATUTES SECTION 216B.1691, Subd.2e	**DOCKET NO. E,G999/CI-11-852**

AFFIDAVIT OF SERVICE

STATE OF IOWA)
) ss.
COUNTY OF LINN)

Tonya A. O'Rourke, being first duly sworn on oath, deposes and states:

That on the 25th day of October, 2011, copies of the foregoing Affidavit of Service, together with Interstate Power and Light Company's Minnesota Renewable Energy Cost Impact Report, were served upon the parties on the attached service list, by e-filing, messenger, electronic mail, and/or first-class mail, proper postage prepaid from Cedar Rapids, Iowa.

/s/ Tonya A. O'Rourke
Tonya A. O'Rourke

Subscribed and Sworn to Before Me
This 25th day of October, 2011.

/s/ Kathleen J. Faine
Kathleen J. Faine
Notary Public
My Commission Expires on February 20, 2012

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
David	Aafedt	daafedt@winthrop.com	Winthrop & Weinstine, P.A.	Suite 3500, 225 South Sixth Street Minneapolis, MN 554024629	Paper Service	No	SPL_SL_11-852_Interested Parties
Christopher	Anderson	canderson@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022191	Electronic Service	No	SPL_SL_11-852_Interested Parties
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
William A.	Blazar	bblazar@mnchamber.com	Minnesota Chamber Of Commerce	Suite 1500 400 Robert Street North St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
Michael	Bradley	bradleym@moss-barnett.com	Moss & Barnett	4800 Wells Fargo Ctr 90 S 7th St Minneapolis, MN 55402-4129	Electronic Service	No	SPL_SL_11-852_Interested Parties
Jon	Brekke	jbrekke@grenergy.com	Great River Energy	12300 Elm Creek Boulevard Maple Grove, MN 553694718	Paper Service	No	SPL_SL_11-852_Interested Parties
Mark B.	Bring	mbring@ottertail.com	Otter Tail Corporation	215 South Cascade Street PO Box 496 Fergus Falls, MN 565380496	Paper Service	No	SPL_SL_11-852_Interested Parties
B. Andrew	Brown	brown.andrew@dorsey.com	Dorsey & Whitney LLP	Suite 1500 50 South Sixth Street Minneapolis, MN 554021498	Paper Service	No	SPL_SL_11-852_Interested Parties
Christina	Brusven	cbrusven@fredlaw.com	Fredrikson & Byron, P.A.	200 S 6th St Ste 4000 Minneapolis, MN 554021425	Electronic Service	No	SPL_SL_11-852_Interested Parties
Tammie	Carino	tcarino@GREnergy.com	Great River Energy	12300 Elm Creek Blvd. Maple Grove, MN 55369-4718	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Douglas M.	Carnival		McGrann Shea Anderson Carnival	Straugn & Lamb 800 Nicollet Mall, Suite 2600 Minneapolis, MN 554027035	Paper Service	No	SPL_SL_11-852_Interested Parties
Christopher	Clark	christopher.b.clark@xcelenergy.com	□cel Energy	5th Floor 414 Nicollet Mall Minneapolis, MN 554011993	Paper Service	No	SPL_SL_11-852_Interested Parties
□enneth A.	Colburn	kcolburn@symbioticstrategies.com	Symbiotic Strategies, LLC	26 Winton Road Meredith, N□ 32535413	Paper Service	No	SPL_SL_11-852_Interested Parties
George	Crocker	gwillc@nawo.org	North American Water Office	PO Box 174 Lake Elmo, MN 55042	Paper Service	No	SPL_SL_11-852_Interested Parties
Mark F.	Dahlberg	markdahlberg@nweco.com	Northwestern Wisconsin Electric Company	P.O. Box 9 104 South Pine Street Grantsburg, WI 548400009	Paper Service	No	SPL_SL_11-852_Interested Parties
Jeffrey A.	Daugherty	jeffrey-daugherty@centerpointenergy.com	CenterPoint Energy	800 LaSalle Ave Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Curt	Dieren	cdieren@dgmet.com	L&O Power Cooperative	1302 South □nion Street PO Box 511 Rock Rapids, IA 51246	Paper Service	No	SPL_SL_11-852_Interested Parties
Mike	Eggl	smeier@bepc.com	Basin Electric Power Cooperative	1717 East Intertate Avenue Bismarck, ND 58503	Paper Service	No	SPL_SL_11-852_Interested Parties
□risten	Eide Tollefson	ket@wro-ns.net	R-C□RE	P O Box 129 Frontenac, MN 55026	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Bob	Eleff		Regulated Industries Cmte	100 Rev Dr Martin Luther □ing Jr Blvd Room 600 St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Pam	Fergen		□enepin County Government Center CAO	A2000 300 S. Sixth Street Minneapolis, MN 55487	Paper Service	No	SPL_SL_11-852_Interested Parties
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	SPL_SL_11-852_Interested Parties
□enry	Fischer	terry.grabau@ecemn.com	East Central Energy	412 North Main Braham, MN 550060039	Paper Service	No	SPL_SL_11-852_Interested Parties
Lori	Frisk Thompson	lorift@utplus.com	Central Minnesota Municipal Power Agency	459 S Grove St Blue Earth, MN 56013	Electronic Service	No	SPL_SL_11-852_Interested Parties
John	Fuller		MN Senate	75 Rev Dr Martin Luther □ing Jr Blvd Room G-17 St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Edward	Garvey	garveyed@aol.com		32 Lawton Street St. Paul, MN 55102	Paper Service	No	SPL_SL_11-852_Interested Parties
Darrell	Gerber		Clean Water Action Alliance of Minnesota	308 □ennepin Ave. E. Minneapolis, MN 55414	Paper Service	No	SPL_SL_11-852_Interested Parties
Ronald	Giteck	ron.giteck@ag.state.mn.us	Office of the Attorney General-R□D	Antitrust and □tilities Division 445 Minnesota Street, 1400 BRM Tower St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Elizabeth	Goodpaster	bgoodpaster@mncenter.org	MN Center for Environmental Advocacy	Suite 206 26 East Exchange Street St. Paul, MN 551011667	Paper Service	No	SPL_SL_11-852_Interested Parties
Bryan	Gower	N/A	AP□, Inc.	224 Airport Parkway Suite 600 San Jose, CA 95110	Paper Service	No	SPL_SL_11-852_Interested Parties
Michael R.	Gravelle	michael.gravelle@avantenergy.com	Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Todd J.	Guerrero	tguerrero@fredlaw.com	Fredrikson & Byron, P.A.	Suite 4000 200 South Sixth Street Minneapolis, MN 554021425	Electronic Service	No	SPL_SL_11-852_Interested Parties
Burl W.	□aar	burl.haar@state.mn.us	Public □tilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Ronald	□arper	rharper@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 585030564	Paper Service	No	SPL_SL_11-852_Interested Parties
Bill	□eaney	billheaney@billheaney.com	IBEW Minnesota State Council	P. O. Box 65397 St. Paul, MN 551550397	Paper Service	No	SPL_SL_11-852_Interested Parties
John	□elmers	helmers.john@co.olmsted.mn.us	Olmsted County Waste to Energy	2122 Campus Drive SE Rochester, MN 55904-4744	Electronic Service	No	SPL_SL_11-852_Interested Parties
Annete	□enkel	mui@mnutilityinvestors.org	Minnesota □tility Investors	413 Wacouta Street □230 St.Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
Ashley	□ouston			120 Fairway Rd Chestnut □ill, MA 24671850	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Lori	□oyum	lhoyum@mnpower.com	Minnesota Power	30 West Superior Street Duluth, MN 55802	Electronic Service	No	SPL_SL_11-852_Interested Parties
Casey	Jacobson	cjacobson@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 58501	Paper Service	No	SPL_SL_11-852_Interested Parties
Amanda A	James	AmandaJames@alliantenergy.com	Interstate Power & Light Company - Gas	200 First St SE PO Box 351 Cedar Rapids, IA 52401-0351	Paper Service	No	SPL_SL_11-852_Interested Parties
Larry	Johnston	lw.johnston@smmpa.org	SMMPA	500 1st Ave SW Rochester, MN 55902-3303	Paper Service	No	SPL_SL_11-852_Interested Parties
Nancy	□elly	nkelly@greeninstitute.org	The Green Institute	□110 2801 21st Avenue Minneapolis, MN 55407	Electronic Service	No	SPL_SL_11-852_Interested Parties
Julie	□etchum		Waste Management	1901 Ames Drive Burnsville, MN 55306	Paper Service	No	SPL_SL_11-852_Interested Parties
□ank	□oegel	N□A	en□co	10 Second St., NE, Ste 107 Minneapolis, MN 55413	Paper Service	No	SPL_SL_11-852_Interested Parties
Nancy	Lange	nlange@iwla.org	Izaak Walton League of America	Suite 202 1619 Dayton Avenue St. Paul, MN 55104	Paper Service	No	SPL_SL_11-852_Interested Parties
Douglas	Larson	dlarson@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	SPL_SL_11-852_Interested Parties
Robert S	Lee	RSL@MCMLAW.COM	Mackall Crounse & Moore Law Offices	1400 AT&T Tower 901 Mar□uette Ave Minneapolis, MN 554022859	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Deborah Fohr	Levchak	dlevchak@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 585030564	Paper Service	No	SPL_SL_11-852_Interested Parties
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-R□D	900 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Mark	Lind□uist		The Minnesota Project	1026 North Washington Street New □lm, MN 56073	Paper Service	No	SPL_SL_11-852_Interested Parties
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E St. Paul, MN 55106	Paper Service	No	SPL_SL_11-852_Interested Parties
Mike	McDowell		□eartland Consumers Power District	PO Box 248 Madison, SD 570420248	Paper Service	No	SPL_SL_11-852_Interested Parties
Dave	McNary		□ennepin County DES	417 N. Fifth Street Minneapolis, MN 55401	Paper Service	No	SPL_SL_11-852_Interested Parties
John	McWilliams	jmm@dairynet.com	Dairyland Power Cooperative	3200 East Ave SPO Box 817 La Crosse, WI 54601-7227	Electronic Service	No	SPL_SL_11-852_Interested Parties
Valerie	Means	meansv@moss-barnett.com	Moss-Barnett	4800 Wells Fargo Center 90 South Seventh Street Minneapolis, MN 55402	Electronic Service	No	SPL_SL_11-852_Interested Parties
Brian	Meloy	brian.meloy@leonard.com	Leonard, Street & Deinard	150 S 5th St Ste 2300 Minneapolis, MN 55402	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Peder	Mewis	Peder.Mewis@senate.mn	Senate Energy, □til and Telecom Committee	Room 322, State Capitol 75 Rev. Dr. Martin Luther □ing Jr. Blvd. St. Paul, MN 55155-1606	Paper Service	No	SPL_SL_11-852_Interested Parties
Carl	Michaud	carl.michaud@co.hennepin.mn.us	□ennepin.County DES	417 N. Fifth Street □200 Minneapolis, MN 554013206	Paper Service	No	SPL_SL_11-852_Interested Parties
Stacy	Miller	stacy.miller@state.mn.us	Office of Energy Security	State Energy Office 85 7th Place East, Suite 500 St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
David	Moeller	dmoeller@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022093	Electronic Service	No	SPL_SL_11-852_Interested Parties
Andrew	Moratzka	apm@mcmlaw.com	Mackall, Crounse and Moore	1400 AT&T Tower 901 Mar□uette Ave Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Carl	Nelson	cnelson@mncee.org	Center for Energy and Environment	212 3rd Ave N Ste 560 Minneapolis, MN 55401	Electronic Service	No	SPL_SL_11-852_Interested Parties
David W.	Niles		Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Thomas L.	Osteraas	tomosteraas@excelsiorenergy.com	Excelsior Energy	225 S 6th St Ste 1730 Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Greg	Oxley	N□A	MM□A	3025 □arbor Ln N Ste 400 Plymouth, MN 55447-5142	Paper Service	No	SPL_SL_11-852_Interested Parties
Joshua	Pearson	N□A	en□co, Inc.	15445 Innovation Drive San Diego, CA 92128	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Mary Beth	Peranteau	mperanteau@wheelerlaw.com	Wheeler Van Sickle & Anderson SC	Suite 801 25 West Main Street Madison, WI 537033398	Paper Service	No	SPL_SL_11-852_Interested Parties
Randall	Porter		Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
□ent	Ragsdale	kentragsdale@alliantenergy.com	Alliant Energy-Interstate Power and Light Company	P.O. Box 351 200 First Street, SE Cedar Rapids, IA 524060351	Paper Service	No	SPL_SL_11-852_Interested Parties
John C.	Reinhardt		Laura A. Reinhardt	3552 26Th Avenue South Minneapolis, MN 55406	Paper Service	No	SPL_SL_11-852_Interested Parties
□evin	Reuther		MN Center for Environmental Advocacy	Suite 206 26 East Exchange Street St. Paul, MN 551011667	Paper Service	No	SPL_SL_11-852_Interested Parties
Trudy	Richter	trichter@rranow.com	Minnesota Resource Recovery Assn.	477 Selby Avenue St. Paul, MN 55102	Paper Service	No	SPL_SL_11-852_Interested Parties
Amy	Rudolph	Amy.Rudolph@house.mn	□ouse Env, Energy & Natural Res Committee	Rom 363, State Office Bldg. 100 Rev. Dr. Martin Luther □ing Jr. Blvd. St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Robert □.	Sahr	bsahr@eastriver.coop	East River Electric Power Cooperative	P.O. Box 227 Madison, SD 57042	Electronic Service	No	SPL_SL_11-852_Interested Parties
Raymond	Sand	rms@dairynet.com	Dairyland Power Cooperative	P.O. Box 8173200 East Avenue South LaCrosse, WI 546020817	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Richard	Savelkoul	rsavelkoul@felhaber.com	Felhaber, Larson, Fenlon & Vogt, P.A.	444 Cedar St Ste 2100 St. Paul, MN 55101-2136	Paper Service	No	SPL_SL_11-852_Interested Parties
Matthew J.	Schuerger P.E.		Energy Systems Consulting Services, LLC	P.O. Box 16129 St. Paul, MN 55116	Paper Service	No	SPL_SL_11-852_Interested Parties
Robert □.	Schulte	rhs@schulteassociates.com	Schulte Associates LLC	15347 Boulder Pointe Road Eden Prairie, MN 55347	Paper Service	No	SPL_SL_11-852_Interested Parties
Dean	Sedgwick		Itasca Power Company	PO Box 457 Spring Lake, MN 566800457	Paper Service	No	SPL_SL_11-852_Interested Parties
Mrg	Simon	mrgsimon@mrenergy.com	Missouri River Energy Services	3724 W. Avera Drive P.O. Box 88920 Sioux Falls, SD 571098920	Electronic Service	No	SPL_SL_11-852_Interested Parties
Beth □.	Soholt	bsoholt@windonthewires.org	Wind on the Wires	Suite 203 1619 Dayton Avenue St. Paul, MN 551046206	Paper Service	No	SPL_SL_11-852_Interested Parties
Dale	Sollom	dsollom@minnkota.com	Minnkota Power Cooperative, Inc.	PO Box 13200 Grand Forks, ND 58208-3200	Electronic Service	No	SPL_SL_11-852_Interested Parties
David	Strom	davids@mnfmi.org	Minnesota Free Market Institute	P.O. Box 120449 St. Paul, MN 55112	Paper Service	No	SPL_SL_11-852_Interested Parties
James M.	Strommen	jstrommen@kennedy-graven.com	□ennedy & Graven, Chartered	470 □.S. Bank Plaza 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Linda	Taylor	taylor@fresh-energy.org	Fresh Energy	408 St Peter St Suite 220 St. Paul, MN 55102-1125	Electronic Service	No	SPL_SL_11-852_Interested Parties
SaGonna	Thompson	Regulatory.Records@xcelenergy.com	□cel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	SPL_SL_11-852_Interested Parties
Steve	Thompson		Central Minnesota Municipal Power Agency	459 S Grove St Blue Earth, MN 56013-2629	Paper Service	No	SPL_SL_11-852_Interested Parties
Douglas	Tiffany	tiffa002@umn.edu	□niversity of Minnesota	316d Ruttan □all 1994 Buford Avenue St. Paul, MN 55108	Paper Service	No	SPL_SL_11-852_Interested Parties
Pat	Treseler	pat.jcplaw@comcast.net	Paulson Law Office LTD	Suite 325 7301 Ohms Lane Edina, MN 55439	Electronic Service	No	SPL_SL_11-852_Interested Parties
Darryl	Tveitbakk		Northern Municipal Power Agency	123 Second Street West Thief River Falls, MN 56701	Paper Service	No	SPL_SL_11-852_Interested Parties
Roger	Warehime	warehimer@owatonnautilities.com	Owatonna Public □tilities	208 South WalnutPO Box 800 Owatonna, MN 55060	Paper Service	No	SPL_SL_11-852_Interested Parties
Paul	White	paul@projectresources.net	Project Resources Corp.	618 Second Avenue SE Minneapolis, MN 55414	Paper Service	No	SPL_SL_11-852_Interested Parties
Robyn	Woeste	robynwoeste@alliantenergy.com	Interstate Power and Light Company	P.O. Box 351 200 First St SE Cedar Rapids, IA 524060351	Paper Service	No	SPL_SL_11-852_Interested Parties
Thomas J.	□aremba		W□EELER, VAN SIC□LE & ANDERSON	Suite 801 25 West Main Street Madison, WI 537033398	Paper Service	No	SPL_SL_11-852_Interested Parties

STATE OF MINNESOTA

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Ellen Anderson	Chair
David Boyd	Commissioner
J. Dennis O.Brien	Commissioner
Phyllis A. Reha	Commissioner
Betsy Wergin	Commissioner

IN THE MATTER OF UTILITY RENEWABLE ENERGY COST IMPACT REPORTS REQUIRED BY MINNESOTA STATUTES SECTION 216B.1691, SUBD. 2e	DOCKET NO. E001/CI-11-852

Statement Providing Justification for Trade Secret Information

Interstate Power and Light Company □IPL□ is providing a non-public version of its Comments in the above captioned docket.

The non-public version of the filing contains trade secret information, as defined by section 13.37 subd. 1□b□, of the Minnesota Statutes in that the data is the subject of efforts by IPL that are reasonable under the circumstances to maintain its non-disclosure, and derives independent economic value, actual or potential from not being generally known to, and being readily ascertainable by proper means by, other person who can obtain economic value from its disclosure or use. IPL has marked the information pursuant to the Commission's Revised Procedures for handling Trade Secret and Privileged Data. Minn. Rule, pt. 7829.0500.

Specifically, IPL respectfully re□uests that information about the purchased power agreement costs for □ardin □illtop Windfarm be treated as trade secret information. Public release of this information would harm IPL and its customers by providing competitors with knowledge of purchased power contract pricing. Those competitors could use this knowledge to improve their negotiating positions in future transactions with IPL, to the detriment of IPL and its customers. Because disclosure of the information would compromise IPL's ability to negotiate future contracts on terms and conditions most favorable to IPL and its customers, the harm of public disclosure outweighs the benefits of such disclosure.

Accordingly, IPL believes the marked information contained in IPL's filing meets the definition of trade secret under Minn. Stat. □13.37.

AVANT ENERGY

200 South Sixth Street
Suite 300
Minneapolis, MN 55402

TEL 612.349.6868
FAX 612.349.6108
WEB AVANTENERGY.COM

October 24, 2011

VIA E-FILING
Burl W. Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

RE: In the Matter of Utility Renewable Energy Cost Impact Report Required by Minnesota Statutes Section 216B.1691, Subd. 2e.
DOCKET NO: E-999/CI-11-852

Dear Dr. Haar:

Minnesota Municipal Power Agency (MMPA) is pleased to submit this analysis in compliance with Minn. Stat. §216B.1691, Subdivision 2e.

MMPA estimated the rate impact of the Renewable Energy Standard (RES) for the years 2010, 2011 and 2012. MMPA only makes wholesale sales of electricity to its members and therefore the estimated rate impacts are for wholesale rates.

For the years 2010 and 2011, MMPA meets its RES obligation through retiring RECs it has purchased. The rate impact to members is the total incremental cost divided by the wholesale megawatt hour sales to members.

In 2012, MMPA will be operating its new 44 MW Oak Glen Wind Farm (OGWF). The addition of this facility will increase MMPA's cost of compliance with the RES. For 2012, MMPA will continue to meet its RES obligation by retiring RECs already in its portfolio. To calculate the rate impact, the revenue from OGWF sales to MISO was projected and then netted against the cost of generating those sales. The net cost of producing the RECs from OGWF and the cost of RECs retired from MMPA's inventory were added and then divided by the projected wholesale sales to members.

The following table summarizes MMPA's estimated rate impact of its RES compliance for 2010, 2011, and 2012:

Year	Rate Impact ($/MWh)
2010	$0.08
2011	$0.07
2012	$2.10

Please see the attached **TRADE SECRET** Excel spreadsheets that explain the calculations for the above rate impacts for each of the years. Please contact me at (612) 252-6528 or James Larson at (612) 252-6524 if you have any questions.

Very truly yours,

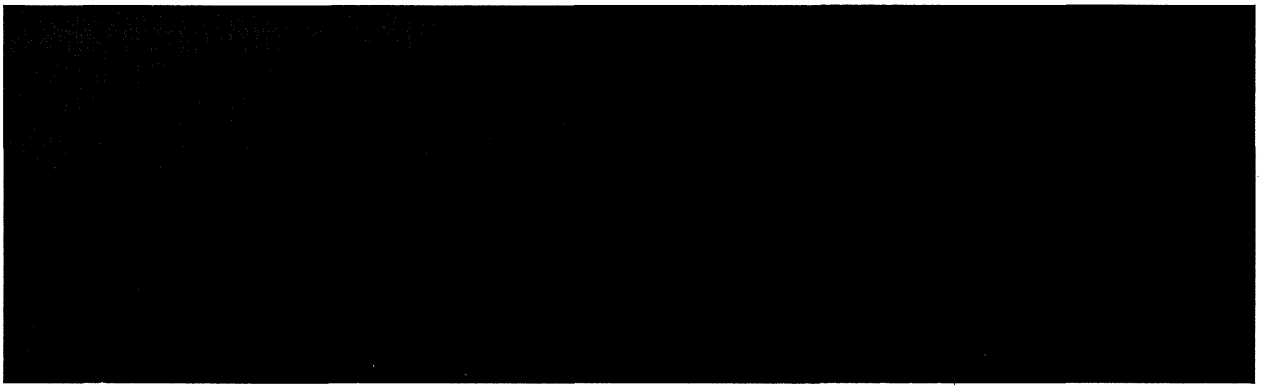
Avant Energy, Inc.
Agent for MMPA

Oncu Er

Enc.

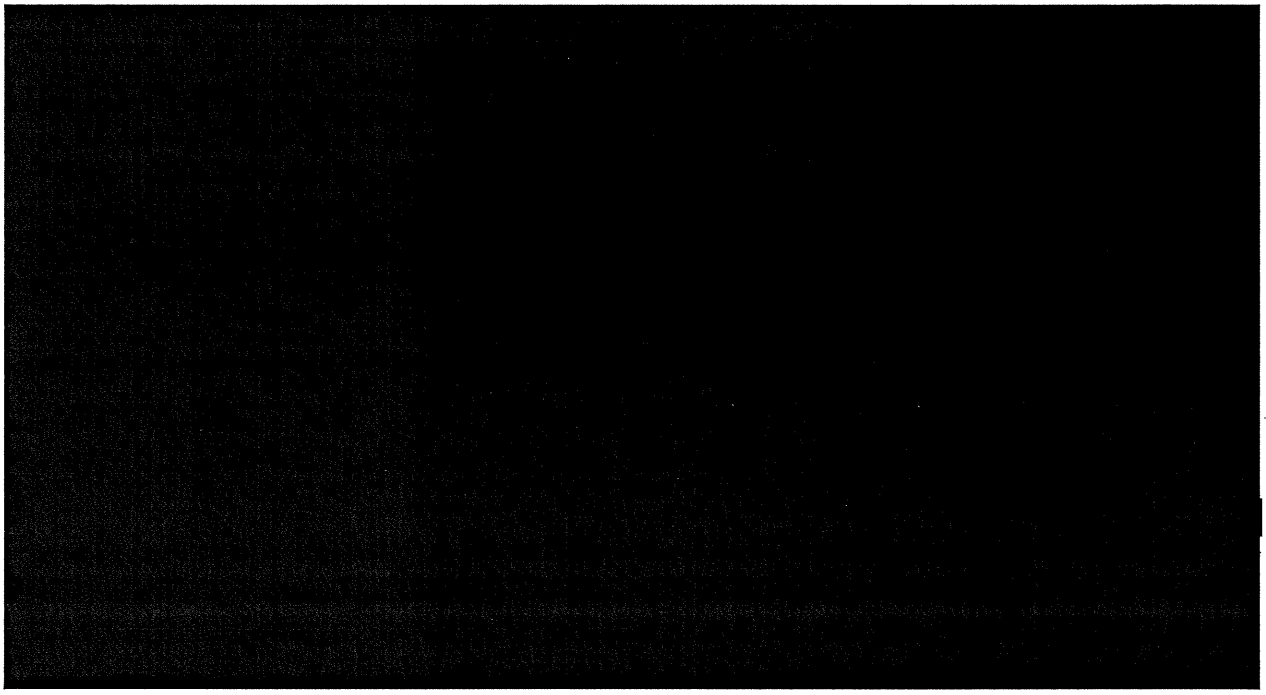
Minnesota Municipal Power Agency
REC Compliance Costs
2010

PUBLIC DOCUMENT--TRADE SECRET DATA HAS BEEN EXCISED



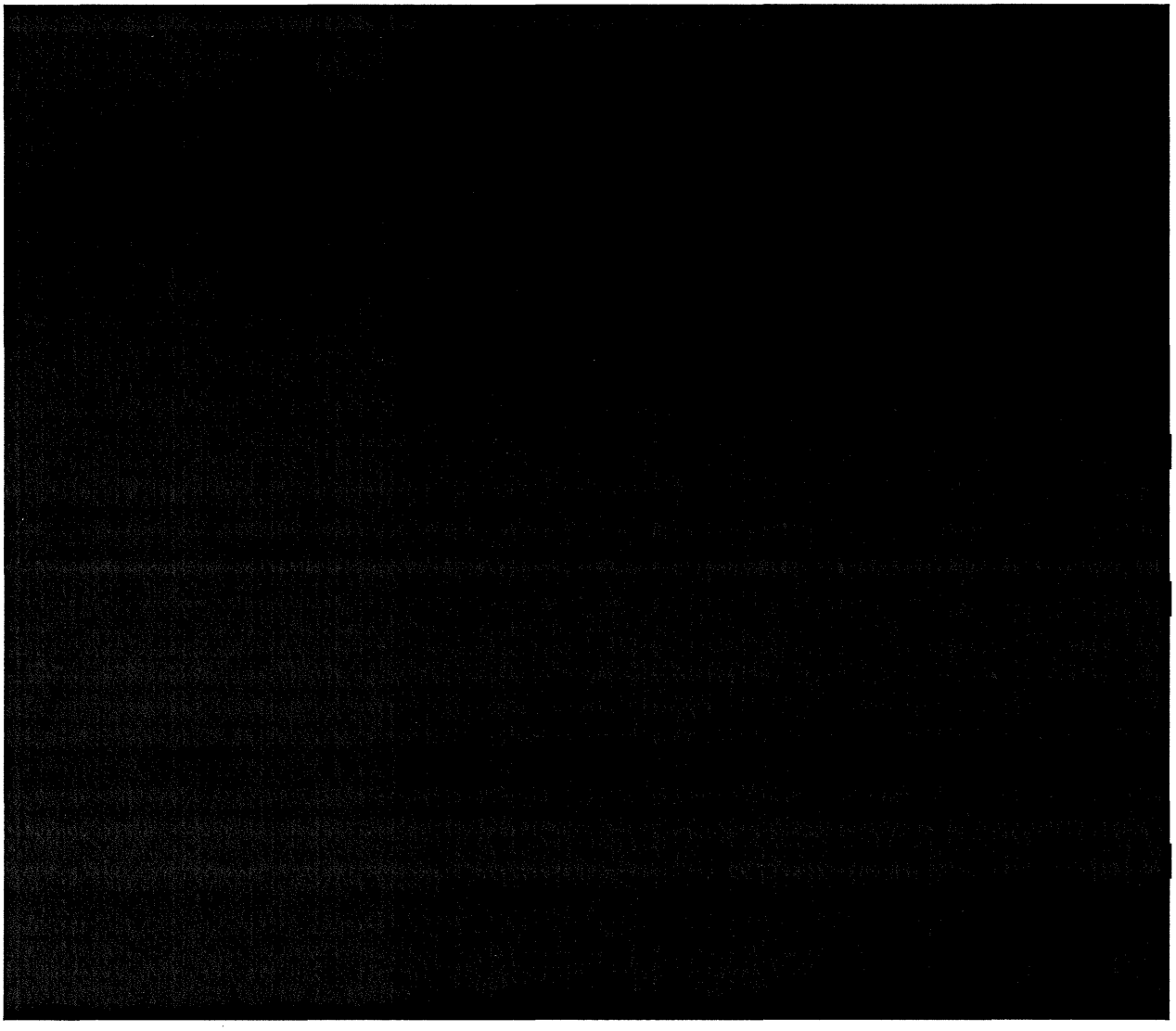
Minnesota Municipal Power Agency
REC Compliance Costs
2011

PUBLIC DOCUMENT--TRADE SECRET DATA HAS BEEN EXCI



Minnesota Municipal Power Agency
REC Compliance Costs
2012

PUBLIC DOCUMENT--TRADE SECRET DATA HAS BEEN EXCISI



CERTIFICATE OF SERVICE

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

Oncu Er of the City of Roseville, County of Ramsey, in the State of Minnesota, says that on the 24th day of October, 2011, he served or caused to be served the enclosed documents by eFiling and sent the original and two paper copies to the Minnesota Department of Commerce by U.S. Mail, enclosed in an envelope, postage prepaid, and by depositing same in the post office at Minneapolis, Minnesota.

Oncu Er

Jessica L Veitch

JESSICA L. VEITCH
Notary Public
State of Minnesota
My Commission Expires
January 31, 2015

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
David	Aafedt	daafedt@winthrop.com	Winthrop & Weinstine, P.A.	Suite 3500, 225 South Sixth Street Minneapolis, MN 554024629	Paper Service	No	SPL_SL_11-852_Interested Parties
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Christopher	Anderson	canderson@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022191	Electronic Service	No	SPL_SL_11-852_Interested Parties
William A.	Blazar	bblazar@mnchamber.com	Minnesota Chamber Of Commerce	Suite 1500 400 Robert Street North St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
Michael	Bradley	bradleym@moss-barnett.com	Moss & Barnett	4800 Wells Fargo Ctr 90 S 7th St Minneapolis, MN 55402-4129	Electronic Service	No	SPL_SL_11-852_Interested Parties
Jon	Brekke	jbrekke@grenergy.com	Great River Energy	12300 Elm Creek Boulevard Maple Grove, MN 553694718	Paper Service	No	SPL_SL_11-852_Interested Parties
Mark B.	Bring	mbring@ottertail.com	Otter Tail Corporation	215 South Cascade Street PO Box 496 Fergus Falls, MN 565380496	Paper Service	No	SPL_SL_11-852_Interested Parties
B. Andrew	Brown	brown.andrew@dorsey.com	Dorsey & Whitney LLP	Suite 1500 50 South Sixth Street Minneapolis, MN 554021498	Paper Service	No	SPL_SL_11-852_Interested Parties
Christina	Brusven	cbrusven@fredlaw.com	Fredrikson & Byron, P.A.	200 S 6th St Ste 4000 Minneapolis, MN 554021425	Electronic Service	No	SPL_SL_11-852_Interested Parties
Tammie	Carino	tcarino@GREnergy.com	Great River Energy	12300 Elm Creek Blvd. Maple Grove, MN 55369-4718	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Douglas M.	Carnival		McGrann Shea Anderson Carnival	Straugn & Lamb 800 Nicollet Mall, Suite 2600 Minneapolis, MN 554027035	Paper Service	No	SPL_SL_11-852_Interested Parties
Christopher	Clark	christopher.b.clark@xcelenergy.com	Xcel Energy	5th Floor 414 Nicollet Mall Minneapolis, MN 554011993	Paper Service	No	SPL_SL_11-852_Interested Parties
Kenneth A.	Colburn	kcolburn@symbioticstrategies.com	Symbiotic Strategies, LLC	26 Winton Road Meredith, NH 32535413	Paper Service	No	SPL_SL_11-852_Interested Parties
George	Crocker	gwillc@nawo.org	North American Water Office	PO Box 174 Lake Elmo, MN 55042	Paper Service	No	SPL_SL_11-852_Interested Parties
Mark F.	Dahlberg	markdahlberg@nweco.com	Northwestern Wisconsin Electric Company	P.O. Box 9 104 South Pine Street Grantsburg, WI 548400009	Paper Service	No	SPL_SL_11-852_Interested Parties
Jeffrey A.	Daugherty	jeffrey-daugherty@centerpointenergy.com	CenterPoint Energy	800 LaSalle Ave Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Curt	Dieren	cdieren@dgmet.com	L&O Power Cooperative	1302 South Union Street PO Box 511 Rock Rapids, IA 51246	Paper Service	No	SPL_SL_11-852_Interested Parties
Mike	Eggl	smeier@bepc.com	Basin Electric Power Cooperative	1717 East Interlate Avenue Bismarck, ND 58503	Paper Service	No	SPL_SL_11-852_Interested Parties
Kristen	Eide Tollefson	ket@wro-ns.net	R-CURE	P O Box 129 Frontenac, MN 55026	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Bob	Eleff		Regulated Industries Cmte	100 Rev Dr Martin Luther King Jr Blvd Room 600 St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Pam	Fergen		Henepin County Government Center CAO	A2000 300 S. Sixth Street Minneapolis, MN 55487	Paper Service	No	SPL_SL_11-852_Interested Parties
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	SPL_SL_11-852_Interested Parties
Henry	Fischer	terry.grabau@ecemn.com	East Central Energy	412 North Main Braham, MN 550060039	Paper Service	No	SPL_SL_11-852_Interested Parties
Lori	Frisk Thompson	lorift@utplus.com	Central Minnesota Municipal Power Agency	459 S Grove St Blue Earth, MN 56013	Electronic Service	No	SPL_SL_11-852_Interested Parties
John	Fuller		MN Senate	75 Rev Dr Martin Luther King Jr Blvd Room G-17 St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Edward	Garvey	garveyed@aol.com		32 Lawton Street St. Paul, MN 55102	Paper Service	No	SPL_SL_11-852_Interested Parties
Darrell	Gerber		Clean Water Action Alliance of Minnesota	308 Hennepin Ave. E. Minneapolis, MN 55414	Paper Service	No	SPL_SL_11-852_Interested Parties
Ronald	Giteck	ron.giteck@ag.state.mn.us	Office of the Attorney General-RUD	Antitrust and Utilities Division 445 Minnesota Street, 1400 BRM Tower St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Elizabeth	Goodpaster	bgoodpaster@mncenter.org	MN Center for Environmental Advocacy	Suite 206 26 East Exchange Street St. Paul, MN 551011667	Paper Service	No	SPL_SL_11-852_Interested Parties
Bryan	Gower	N/A	APX, Inc.	224 Airport Parkway Suite 600 San Jose, CA 95110	Paper Service	No	SPL_SL_11-852_Interested Parties
Michael R.	Gravelle	michael.gravelle@avantenergy.com	Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Todd J.	Guerrero	tguerrero@fredlaw.com	Fredrikson & Byron, P.A.	Suite 4000 200 South Sixth Street Minneapolis, MN 554021425	Electronic Service	No	SPL_SL_11-852_Interested Parties
Burl W.	Haar	burl.haar@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Ronald	Harper	rharper@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 585030564	Paper Service	No	SPL_SL_11-852_Interested Parties
Bill	Heaney	billheaney@billheaney.com	IBEW Minnesota State Council	P. O. Box 65397 St. Paul, MN 551550397	Paper Service	No	SPL_SL_11-852_Interested Parties
John	Helmers	helmers.john@co.olmsted.mn.us	Olmsted County Waste to Energy	2122 Campus Drive SE Rochester, MN 55904-4744	Electronic Service	No	SPL_SL_11-852_Interested Parties
Annete	Henkel	mui@mnutilityinvestors.org	Minnesota Utility Investors	413 Wacouta Street #230 St.Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
Ashley	Houston			120 Fairway Rd Chestnut Hill, MA 24671850	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Lori	Hoyum	lhoyum@mnpower.com	Minnesota Power	30 West Superior Street Duluth, MN 55802	Electronic Service	No	SPL_SL_11-852_Interested Parties
Casey	Jacobson	cjacobson@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 58501	Paper Service	No	SPL_SL_11-852_Interested Parties
Amanda A	James	AmandaJames@alliantenergy.com	Interstate Power & Light Company - Gas	200 First St SE PO Box 351 Cedar Rapids, IA 52401-0351	Paper Service	No	SPL_SL_11-852_Interested Parties
Larry	Johnston	lw.johnston@smmpa.org	SMMPA	500 1st Ave SW Rochester, MN 55902-3303	Paper Service	No	SPL_SL_11-852_Interested Parties
Nancy	Kelly	nkelly@greeninstitute.org	The Green Institute	#110 2801 21st Avenue Minneapolis, MN 55407	Electronic Service	No	SPL_SL_11-852_Interested Parties
Julie	Ketchum		Waste Management	1901 Ames Drive Burnsville, MN 55306	Paper Service	No	SPL_SL_11-852_Interested Parties
Hank	Koegel	N/A	enXco	10 Second St., NE, Ste 107 Minneapolis, MN 55413	Paper Service	No	SPL_SL_11-852_Interested Parties
Nancy	Lange	nlange@iwla.org	Izaak Walton League of America	Suite 202 1619 Dayton Avenue St. Paul, MN 55104	Paper Service	No	SPL_SL_11-852_Interested Parties
Douglas	Larson	dlarson@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	SPL_SL_11-852_Interested Parties
Robert S	Lee	RSL@MCMLAW.COM	Mackall Crounse & Moore Law Offices	1400 AT&T Tower 901 Marquette Ave Minneapolis, MN 554022859	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Deborah Fohr	Levchak	dlevchak@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 585030564	Paper Service	No	SPL_SL_11-852_Interested Parties
John	Lindell	agorud.ecf@state.mn.us	Office of the Attorney General-RUD	900 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Mark	Lindquist		The Minnesota Project	1026 North Washington Street New Ulm, MN 56073	Paper Service	No	SPL_SL_11-852_Interested Parties
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E St. Paul, MN 55106	Paper Service	No	SPL_SL_11-852_Interested Parties
Mike	McDowell		Heartland Consumers Power District	PO Box 248 Madison, SD 570420248	Paper Service	No	SPL_SL_11-852_Interested Parties
Dave	McNary		Hennepin County DES	417 N. Fifth Street Minneapolis, MN 55401	Paper Service	No	SPL_SL_11-852_Interested Parties
John	McWilliams	jmm@dairynet.com	Dairyland Power Cooperative	3200 East Ave SPO Box 817 La Crosse, WI 54601-7227	Electronic Service	No	SPL_SL_11-852_Interested Parties
Valerie	Means	meansv@moss-barnett.com	Moss-Barnett	4800 Wells Fargo Center 90 South Seventh Street Minneapolis, MN 55402	Electronic Service	No	SPL_SL_11-852_Interested Parties
Brian	Meloy	brian.meloy@leonard.com	Leonard, Street & Deinard	150 S 5th St Ste 2300 Minneapolis, MN 55402	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Peder	Mewis	Peder.Mewis@senate.mn	Senate Energy, Util and Telecom Committee	Room 322, State Capitol 75 Rev. Dr. Martin Luther King Jr. Blvd. St. Paul, MN 55155-1606	Paper Service	No	SPL_SL_11-852_Interested Parties
Carl	Michaud	carl.michaud@co.hennepin.mn.us	Hennepin County DES	417 N. Fifth Street #200 Minneapolis, MN 554013206	Paper Service	No	SPL_SL_11-852_Interested Parties
Stacy	Miller	stacy.miller@state.mn.us	Office of Energy Security	State Energy Office 85 7th Place East, Suite 500 St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
David	Moeller	dmoeller@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022093	Electronic Service	No	SPL_SL_11-852_Interested Parties
Andrew	Moratzka	apm@mcmlaw.com	Mackall, Crounse and Moore	1400 AT&T Tower 901 Marquette Ave Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Bryan	Morlock	bmorlock@otpco.com	Otter Tail Power Company	215 South Cascade Street Box 496 Fergus Falls, MN 565380496	Electronic Service	No	SPL_SL_11-852_Interested Parties
Carl	Nelson	cnelson@mncee.org	Center for Energy and Environment	212 3rd Ave N Ste 560 Minneapolis, MN 55401	Electronic Service	No	SPL_SL_11-852_Interested Parties
David W.	Niles		Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Thomas L.	Osteraas	tomosteraas@excelsiorenergy.com	Excelsior Energy	225 S 6th St Ste 1730 Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Greg	Oxley	N/A	MMUA	3025 Harbor Ln N Ste 400 Plymouth, MN 55447-5142	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Joshua	Pearson	N/A	enXco, Inc.	15445 Innovation Drive San Diego, CA 92128	Paper Service	No	SPL_SL_11-852_Interested Parties
Mary Beth	Peranteau	mperanteau@wheelerlaw.com	Wheeler Van Sickle & Anderson SC	Suite 801 25 West Main Street Madison, WI 537033398	Paper Service	No	SPL_SL_11-852_Interested Parties
Randall	Porter		Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Kent	Ragsdale	kentragsdale@alliantenergy.com	Alliant Energy-Interstate Power and Light Company	P.O. Box 351 200 First Street, SE Cedar Rapids, IA 524060351	Paper Service	No	SPL_SL_11-852_Interested Parties
John C.	Reinhardt		Laura A. Reinhardt	3552 26Th Avenue South Minneapolis, MN 55406	Paper Service	No	SPL_SL_11-852_Interested Parties
Kevin	Reuther		MN Center for Environmental Advocacy	Suite 206 26 East Exchange Street St. Paul, MN 551011667	Paper Service	No	SPL_SL_11-852_Interested Parties
Trudy	Richter	trichter@rranow.com	Minnesota Resource Recovery Assn.	477 Selby Avenue St. Paul, MN 55102	Paper Service	No	SPL_SL_11-852_Interested Parties
Amy	Rudolph	Amy.Rudolph@house.mn	House Env, Energy & Natural Res Committee	Rom 363, State Office Bldg. 100 Rev. Dr. Martin Luther King Jr. Blvd. St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Robert K.	Sahr	bsahr@eastriver.coop	East River Electric Power Cooperative	P.O. Box 227 Madison, SD 57042	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Raymond	Sand	rms@dairynet.com	Dairyland Power Cooperative	P.O. Box 8173200 East Avenue South LaCrosse, WI 546020817	Electronic Service	No	SPL_SL_11-852_Interested Parties
Richard	Savelkoul	rsavelkoul@felhaber.com	Felhaber, Larson, Fenlon & Vogt, P.A.	444 Cedar St Ste 2100 St. Paul, MN 55101-2136	Paper Service	No	SPL_SL_11-852_Interested Parties
Matthew J.	Schuerger P.E.		Energy Systems Consulting Services, LLC	P.O. Box 16129 St. Paul, MN 55116	Paper Service	No	SPL_SL_11-852_Interested Parties
Robert H.	Schulte	rhs@schulteassociates.com	Schulte Associates LLC	15347 Boulder Pointe Road Eden Prairie, MN 55347	Paper Service	No	SPL_SL_11-852_Interested Parties
Dean	Sedgwick		Itasca Power Company	PO Box 457 Spring Lake, MN 566800457	Paper Service	No	SPL_SL_11-852_Interested Parties
Mrg	Simon	mrgsimon@mrenergy.com	Missouri River Energy Services	3724 W. Avera Drive P.O. Box 88920 Sioux Falls, SD 571098920	Electronic Service	No	SPL_SL_11-852_Interested Parties
Beth H.	Soholt	bsoholt@windonthewires.org	Wind on the Wires	Suite 203 1619 Dayton Avenue St. Paul, MN 551046206	Paper Service	No	SPL_SL_11-852_Interested Parties
Dale	Sollom	dsollom@minnkota.com	Minnkota Power Cooperative, Inc.	PO Box 13200 Grand Forks, ND 58208-3200	Electronic Service	No	SPL_SL_11-852_Interested Parties
David	Strom	davids@mnfmi.org	Minnesota Free Market Institute	P.O. Box 120449 St. Paul, MN 55112	Paper Service	No	SPL_SL_11-852_Interested Parties
James M.	Strommen	jstrommen@kennedy-graven.com	Kennedy & Graven, Chartered	470 U.S. Bank Plaza 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	SPL_SL_11-852_Interested Parties
Linda	Taylor	taylor@fresh-energy.org	Fresh Energy	408 St Peter St Suite 220 St. Paul, MN 55102-1125	Electronic Service	No	SPL_SL_11-852_Interested Parties
SaGonna	Thompson	Regulatory.Records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	SPL_SL_11-852_Interested Parties
Steve	Thompson		Central Minnesota Municipal Power Agency	459 S Grove St Blue Earth, MN 56013-2629	Paper Service	No	SPL_SL_11-852_Interested Parties
Douglas	Tiffany	tiffa002@umn.edu	University of Minnesota	316d Ruttan Hall 1994 Buford Avenue St. Paul, MN 55108	Paper Service	No	SPL_SL_11-852_Interested Parties
Pat	Treseler	pat.jcplaw@comcast.net	Paulson Law Office LTD	Suite 325 7301 Ohms Lane Edina, MN 55439	Electronic Service	No	SPL_SL_11-852_Interested Parties
Darryl	Tveitbakk		Northern Municipal Power Agency	123 Second Street West Thief River Falls, MN 56701	Paper Service	No	SPL_SL_11-852_Interested Parties
Roger	Warehime	warehimer@owatonnautilities.com	Owatonna Public Utilities	208 South WalnutPO Box 800 Owatonna, MN 55060	Paper Service	No	SPL_SL_11-852_Interested Parties
Paul	White	paul@projectresources.net	Project Resources Corp.	618 Second Avenue SE Minneapolis, MN 55414	Paper Service	No	SPL_SL_11-852_Interested Parties
Robyn	Woeste	robynwoeste@alliantenergy.com	Interstate Power and Light Company	P.O. Box 351 200 First St SE Cedar Rapids, IA 524060351	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Thomas J.	Zaremba		WHEELER, VAN SICKLE & ANDERSON	Suite 801 25 West Main Street Madison, WI 537033398	Paper Service	No	SPL_SL_11-852_Interested Parties

BASIN ELECTRIC POWER COOPERATIVE

1717 EAST INTERSTATE AVENUE
BISMARCK, NORTH DAKOTA 58503-0564
PHONE: 701-223-0441
FAX 701-557-5336

October 25, 2011

Dr. Burl Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

Re: In the Matter of Utility Renewable Energy Cost Impact Reports Required by Minnesota Statutes Section 216B.1691, Subd. 2e
Docket No. E-999/CI-11-852

Dear Dr. Haar:

Enclosed please find the combined filing of Basin Electric Power Cooperative, East River Electric Cooperative and L&O Power Cooperative in the above referenced docket.

Should you have any questions regarding this filing, please contact me at cjacobson@bepc.com or (701) 557-5413.

Respectfully submitted,

Casey J. Jacobson
Attorney

cjj/ds
enclosure

cc: Service List
Jeff Nelson, East River Electric Power Cooperative
Curt Dieren, L&O Power Cooperative

AFFIDAVIT OF SERVICE

STATE OF NORTH DAKOTA)
)ss.
COUNTY OF BURLEIGH)

In the Matter of Utility Renewable Energy Cost Impact Reports Required by Minnesota Statutes Section 216B.1691, Subd. 2e

Docket No. E-999/CI-11-852

Darlene Steffan, being first duly sworn on oath, deposes and states that on the 25th day of October, 2011, copies of Basin Electric Power Cooperative's response in the above-referenced matter were e-filed or mailed by United States First Class mail, postage pre-paid thereon, to the attached service list.

Darlene Steffan

Subscribed and sworn to before me this 25th day of October, 2011.

Notary Public

DEBORAH LEVCHAK
Notary Public
State of North Dakota
My Commission Expires September 26, 2015

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

Ellen Anderson	**Chair**
Betsy Wergin	**Commissioner**
David C. Boyd	**Commissioner**
J. Dennis O'Brien	**Commissioner**
Phyllis Rhea	**Commissioner**

Docket No. E-999/CI-11-852
COMPLIANCE REPORT

In Compliance with the Minnesota Public Utilities Commission's September 29, 2011, Notice in Docket No. E-999/CI-11-852, Basin Electric Power Cooperative (**Basin Electric**), East River Electric Power Cooperative (**East River**) and L&O Power Cooperative (**L&O**) submits the following report detailing the rate impact of the Minnesota REO/RES.

Although each of the above utilities file separate REO/RES Reports, Basin Electric, East River & L&O have chosen to file together as Basin is the wholesale electrical provider to East River & L&O. Also, future reports will be included in Integrated Resource Plans (**IRP**), and since East River and L&O do not file IRP's, the information for all three parties will be included in Basin Electric's IRP.

I. Introduction

At Basin Electric's 2005 Annual Meeting, which occurred in November 2005, a resolution was passed setting a renewable energy goal. The goal was for Basin Electric to establish green or renewable resources by 2010 that would be equal to 10 percent of the generating capacity needed to meet its member demand.

As a result of the Basin Electric resolution and upon Basin Electric's resource development plans to meet its power supply obligations throughout its nine state service territory, Basin Electric developed over 700 MW of renewable generation through power purchase arrangements or through the construction of its own wind projects. The table below lists the different renewable projects that Basin Electric either owns, directly or through a subsidiary, or has entered into a power purchase agreements with.

Project Name	Location	Renewable Type	Megawatts	Owned or Purchased
Culbertson (CS-3)	Culbertson, MT	REG	5.5	Purchased
Garvin (CS-12)	Garvin, MN	REG	5.5	Purchased
Hidewood (CS-11)	Estelline, SD	REG	5.5	Purchased
Manning (CS-5)	Manning, ND	REG	5.5	Purchased
Pembrook (CS-9)	Wetonka, SD	REG	5.5	Purchased
St. Anthony (CS-7)	St. Anthony, ND	REG	5.5	Purchased
Woodland (CS-10)	Clark, SD	REG	5.5	Purchased
Zeeland (CS-8)	Zeeland, ND	REG	5.5	Purchased

Baldwin Wind Project	Baldwin, ND	Wind	100	Purchased
Chamberlain Wind Project	Chamberlain, SD	Wind	2.6	Owned
Crosswinds Energy	Ayrshire, IA	Wind	16.8	Purchased
Crow Lake Wind Project	White Lake, SD	Wind	150	Owned
Crow Lake Wind Project	White Lake, SD	Wind	1.5	Purchased
Crow Lake Wind Project	White Lake, SD	Wind	10.5	Purchased
Day County Wind Farm	Groton, SD	Wind	99	Purchased
Edgeley Wind Project (North Dakota 1 Wind Energy Center)	Edgeley, ND	Wind	40	Purchased
Hancock County	Duncan/Klemme	Wind	7.3	Purchased
Hyde County Wind Project (South Dakota Wind Energy Center)	Highmore, SD	Wind	40	Purchased
Lakota Wind Project	Lakota, IA	Wind	10.5	Purchased
Minot Wind Project	Minot, ND	Wind	7.1	Owned
PrairieWinds 1	Minot, ND	Wind	115.5	Owned
Superior Wind Project	Superior, IA	Wind	10.5	Purchased
Wilton Wind II	Wilton, ND	Wind	49.5	Purchased
Wilton Wind Project (Wilton Wind Energy Center)	Wilton, ND	Wind	49.5	Purchased
Total Renewable Generation			**754.3 MW**	
Total REG (Recovered Energy Generation)[1]			**44.0 MW**	
Total Wind			**710.3 MW**	

Basin Electric's Board of Directors has adopted several incentive rates over the years with some of the current ones being:

1.) Distributed Generation Purchase Rate, for generators between 150-5,000 kW which have environmental attributes;

2.) Small Renewable Energy Purchase Rate, for 0-150 KW projects;

3.) Consumer Wind Energy Purchase Rate, for 150-5,000 KW projects; and

4.) Community-Based Energy Development (C-Bed) Purchase Rate, for projects less than or equal to 20,000 KW per Minnesota Statutes, Chapter 216B.1612.

The following table is a list of projects currently (as of October 18, 2011) being purchased under these incentive rates.

Member	Distribution Member	Location	Renewable Type	Kilowatts
East River		Alexandria, MN	Wind	160
L&O		Pipestone, MN	Wind	750
Minnesota Valley EC		Shakopee, MN	Wind	1,500
Central Power	McLean Electric	Minot, ND	W	44

[1] Recovered Energy Generation (REG) does not qualify as an "eligible energy technology" as outlined in 216B.1691 and therefore is not eligible to meet Minnesota's Renewable Energy Objective, however the REGs is eligible to meet the objectives and/or standards in Colorado, North Dakota and South Dakota.

Corn Belt	Butler County	Fairbank, IA	W	40
Corn Belt	Butler County	Tripoli, IA	W	33
Corn Belt	Butler County	Shellrock, IA	W	24
Corn Belt	Butler County	Clarksville, IA	W	95
Corn Belt	Butler County	Lawler, IA	W	65
Corn Belt	Butler County	Lawler, IA	W	65
Corn Belt	Butler County	Charles City, IA	W	40
Corn Belt	Butler County	Readlyn, IA	W	98
Corn Belt	Butler County	Greene, IA	W	2.4
Corn Belt	Butler County	Readlyn, IA	W	65
Corn Belt	Butler County	Readlyn, IA	W	65
Corn Belt	Butler County	Tripoli, IA	W	65
Corn Belt	Butler County	Waverly, IA	W	33
Corn Belt	Butler County	Greene, IA	W	25
Corn Belt	Calhoun County	Calhoun County, IA	W	130
Corn Belt	Calhoun County	Farmhamville. IA	W	3.4
Corn Belt	Calhoun County	Pomeroy, IA	S	10.6
Corn Belt	Calhoun County	Pomeroy, IA	W	20
Corn Belt	Franklin	Hampton, IA	W	20
Corn Belt	Franklin	Ackley , IA	W	5
Corn Belt	Grundy County	Wellsburg, IA	W	10
Corn Belt	Grundy County	Traer, IA	W	40
Corn Belt	Humboldt County	Rutland, IA	W	10
Corn Belt	Humboldt County	Rutland, IA	W	10
Corn Belt	Iowa Lakes	Alta, IA	W	10
Corn Belt	Iowa Lakes	Clay Co., Riverton Twp., IA	W&S	12
Corn Belt	Iowa Lakes	Storm Lake, IA	W	6
Corn Belt	Iowa Lakes	Buena Vista Co., Maple Valley Twp. IA	W	20
Corn Belt	Midland Power	Radcliffe, IA	W	33
Corn Belt	Midland Power	Roland, IA	W	20
Corn Belt	Midland Power	Iowa Falls, IA	W	12
Corn Belt	Midland Power	Eldora, IA	W	10
Corn Belt	Prairie Energy	Garner, IA	W	30
Corn Belt	Prairie Energy	Ventura, IA	W	30
Corn Belt	Prairie Energy	Garner, IA	W	30
Corn Belt	Prairie Energy	Ventura, IA	W	30
Corn Belt	Prairie Energy	Forest City, IA	W	3.7
Corn Belt	Prairie Energy	Garner, IA	W	3.5
Corn Belt	Prairie Energy	Forest City, IA	W	12
Corn Belt	Prairie Energy	Garner, IA	W	20
Corn Belt	Racoon Valley	Carroll, IA	W	20
Corn Belt	Racoon Valley	Glidden, IA	W	3
Corn Belt	Racoon Valley	Sac City, IA	W	49
East River	Charles Mix	Armour, SD	B	140
East River	Central Electric	Mitchell, SD	W	10
East River	Codington-Clark	Clark, SD 57225	W	28.0
East River	Codington-Clark	Watertown, SD	S	2.2
East River	Codington-Clark	Clark, SD	W	28.0
East River	Dakota Energy	Highmore, SD	W	10.0
East River	Dakota Energy	Wessington, SD	W	10.0
East River	Douglas Elec	Armour, SD	W	10.0
East River	FEM Electric	Eureka, SD	W	1.8
East River	Lake Region	Britton, SD	W	3.0

East River	Lyon-Lincoln	Pipestone, MN	W	39.5
East River	Lyon-Lincoln	Tyler, MN	W	39.5
East River	Lyon-Lincoln	Tyler, MN	W	39.5
East River	Lyon-Lincoln	Marshall, MN	W	35.0
East River	Lyon-Lincoln	Russell, MN	W	35.0
East River	Lyon-Lincoln	Lynd, MN	W	35.0
East River	Lyon-Lincoln	Ghent, MN	W	35.0
East River	Lyon-Lincoln	Granite Falls, MN	W	39.5
East River	Lyon-Lincoln	Lynd, MN	W	35.0
East River	Lyon-Lincoln	Arco, MN	W	2.0
East River	Lyon-Lincoln	Lynd, MN	W	10
East River	Oahe Electric	Pierre, SD	W	2.4
East River	Oahe Electric	Pierre, SD	W	5
East River	Oahe Electric	Pierre, SD	S	2
East River	Renville-Sibley	Dewood, MN	S	1.2
East River	Renville-Sibley	Dewood, MN	W	4.0
East River	Renville-Sibley	Gibbon, MN	W	39.0
East River	Renville-Sibley	Franklin, MN	W	20.0
East River	Renville-Sibley	Henryville Twp, MN	W&S	2.9
East River	Renville-Sibley	Redwood Falls, MN	W	39.9
East River	Renville-Sibley	Redwood Falls, MN	W	39.9
East River	Sioux Valley	Garretson, SD	W	10.0
East River	Sioux Valley	Dell Rapids, SD	W	10.0
East River	Southeastern Elec.	Sioux Falls, SD	S	10.0
East River	Southeastern Elec.	Sioux Falls, SD	S	10.0
MN Valley Coop L&P	MNV CL&P	Granite Falls, MN	W	35.0
MN Valley Coop L&P	MNV CL&P	Boyd, MN	W	34.0
MN Valley Coop L&P	MNV CL&P	Lac Qui Park County, MN	W	35.0
MN Valley Coop L&P	MNV CL&P	Lac Qui Park County, MN	W	39.9
NIPCO	Iowa Lakes	Aurelia, IA	W	100.0
NIPCO	Iowa Lakes	Aurelia, IA	W	100.0
Roughrider	Roughrider	Richardton, ND	W	125.0
Rushmore	Black Hills	Fairburn, SD	W	1.8
Rushmore	Black Hills	Rapid City, SD	S	4.7
Rushmore	Black Hills	Hot Springs, SD	S	2.1
Rushmore	Black Hills		S	6.0
Rushmore	Butte Electric	Whitewood, SD	W	12.0
Rushmore	Butte Electric	Sturgis, SD	W	1.8
Rushmore	Butte Electric	Sturgis, SD	W	1.8
Rushmore	Butte Electric	Belle Fouche, SD	W	1.8
Rushmore	Butte Electric	Whitewood, SD	W	49.0
Rushmore	Butte Electric	Belle Fouche, SD	W	2.8
Rushmore	Butte Electric	Belle Fouche, SD	W	2.5
Rushmore	Butte Electric	Whitewood, SD	W	130.0
Rushmore	Cam Wal	Selby, SD	W	2.4
Rushmore	Cam Wal	Aberdeen, SD	W	1.9
Rushmore	Cam Wal	Mobridge, SD	W	1.9

Rushmore	Cam Wal	Glenham, SD	W	5.0
Rushmore	LaCreek	Martin, SD	W	1.9
Rushmore	LaCreek	Porcupine, SD	W	49.0
Rushmore	LaCreek	Allen, SD	W	1.9
Rushmore	LaCreek	Pine Ridge Reservation, SD	S	2.0
Rushmore	West River	Box Elder, SD	W	2.4
Rushmore	West River	Box Elder, SD	W	2.4
Rushmore	West River	Piedmont, SD	W	2.4
Rushmore	West River	Rapid City, SD	W	2.4
Rushmore	West River	Rapid City, SD	W	1.8
Rushmore	West River	Rapid City, SD	W	2.4
Rushmore	West River	Box Elder, SD	W	2.4
Rushmore	West River	Piedmont, SD	W	2.4
Rushmore	West River	Piedmont, SD	W	2.4
Rushmore	West River	Rapid City, SD	W	3.0
Rushmore	West River	Rapid City, SD	W	2.4
Rushmore	West River	Rapid City, SD	W	2.4
Rushmore	West River	Sturgis, SD	W	2.5
Rushmore	West River	Piedmont, SD	W	2.4
Rushmore	West River	Piedmont, SD	W	5.0
Rushmore	West River	Rapid City, SD	W	30.0
Rushmore	West River	Hot Springs, SD	W	2.4
Rushmore	West River	Union Center, SD	W	5.0
Rushmore	West River	Box Elder, SD	W	10.0
Rushmore	West River	Rapid City, SD	W	2.4
Rushmore	West River	Sturgis, SD	W	10.0
Rushmore	West River	Badlands National Park, SD	W&S	10.0
Rushmore	West River	Bridger, SD	W	2.4
Upper Missouri	Burke Divide	Bowbells, ND	W	20.0
Upper Missouri	McKenzie Electric	Fort Berthold Reservation, ND	W	66.0
Upper Missouri	McKenzie Electric	Killdeer, ND	W	2.4
Upper Missouri	McKenzie Electric	Cartwright, ND	W	5.6
			TOTAL	**$5,522.99**

II. Rate Impact of REO

Minn State. §216B.1691, subd. 2e requires electric utilities to file a report, "containing an estimation of the rate impact of activities of the utility necessary to comply with section 216B.1691." Basin Electric developed the above listed wind resources for the purpose of meeting the member's resolution and for meeting energy demands from its membership. Basin Electric's renewable generation was not constructed or purchased for meeting any state renewable energy goal or requirement. Its renewable generation was constructed with minimal incremental transmission investment or wheeling expenses and Basin Electric has incorporated the wind resources into its generation operations with minimal economic impact. Basin Electric has developed renewable resources which it believes are valuable and economical assets to meeting Basin Electric's current and future power supply obligations and are in line with meeting the objectives of the Basin Electric Membership and Board of Directors. As such, there has been no impact to Basin Electric, East River and L&O's rates due to the Minnesota REO/RES. Basin Electric currently has sufficient renewable generation online to meet

the REO requirements associated with the Basin Electric power supply obligations over its nine state service territory through the 2020-2025 time period.

Although there has been no impact to the rates, there have been some costs both-anticipated and unanticipated from our renewable generation. First, are the minimum generation alerts that have impacted Basin Electric's operations this spring and summer. During the period of May through September 2011, Basin Electric was required to shutdown a number of our wind projects, which subjected Basin Electric to contractual liquidated damages that have amounted to approximately $1.8 Million. Second, the only cost impact, at this time, of meeting the Minnesota REO requirement is the lost opportunity from sales of renewable energy credits (REC's) which were retired in order to meet the Minnesota REO. The lost sales opportunity amounted to approximately $100,000 during the 2005 through 2010 time period. The $100,000 is determined by the fact that Basin Electric, East River and L&O Power Cooperative either reserved or retired 102,231 RECs during the period of 2005-2010, with an assumed value of $1.00/REC for the value of lost REC sales.

The wind generation that Basin Electric has today has been and we believe it will be a economical resource for meeting Basin Electric's power supply obligations primarily because of the federal incentives for production tax credits and grants that the wind projects have received. If the federal incentives for wind generation would cease, the economics for new wind generation would not be as attractive as it has been and there would be more cost impacts if additional wind generation is needed beyond what Basin Electric has today.

At the current time, Basin Electric has determined that it should put a stay on additional major wind resource development activities unless our resource planning processes identify that additional wind resources would help meet Basin Electric's mission of providing the most cost effective resources to meet Basin Electric's power supply obligations.

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
David	Aafedt	daafedt@winthrop.com	Winthrop & Weinstine, P.A.	Suite 3500, 225 South Sixth Street Minneapolis, MN 554024629	Paper Service	No	SPL_SL_11-852_Interested Parties
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Christopher	Anderson	canderson@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022191	Electronic Service	No	SPL_SL_11-852_Interested Parties
William A.	Blazar	bblazar@mnchamber.com	Minnesota Chamber Of Commerce	Suite 1500 400 Robert Street North St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
Michael	Bradley	bradleym@moss-barnett.com	Moss & Barnett	4800 Wells Fargo Ctr 90 S 7th St Minneapolis, MN 55402-4129	Electronic Service	No	SPL_SL_11-852_Interested Parties
Jon	Brekke	jbrekke@grenergy.com	Great River Energy	12300 Elm Creek Boulevard Maple Grove, MN 553694718	Paper Service	No	SPL_SL_11-852_Interested Parties
Mark B.	Bring	mbring@ottertail.com	Otter Tail Corporation	215 South Cascade Street PO Box 496 Fergus Falls, MN 565380496	Paper Service	No	SPL_SL_11-852_Interested Parties
B. Andrew	Brown	brown.andrew@dorsey.com	Dorsey & Whitney LLP	Suite 1500 50 South Sixth Street Minneapolis, MN 554021498	Paper Service	No	SPL_SL_11-852_Interested Parties
Christina	Brusven	cbrusven@fredlaw.com	Fredrikson & Byron, P.A.	200 S 6th St Ste 4000 Minneapolis, MN 554021425	Electronic Service	No	SPL_SL_11-852_Interested Parties
Tammie	Carino	tcarino@GREnergy.com	Great River Energy	12300 Elm Creek Blvd. Maple Grove, MN 55369-4718	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Douglas M.	Carnival		McGrann Shea Anderson Carnival	Straugn & Lamb 800 Nicollet Mall, Suite 2600 Minneapolis, MN 554027035	Paper Service	No	SPL_SL_11-852_Interested Parties
Christopher	Clark	christopher.b.clark@xcelenergy.com	Xcel Energy	5th Floor 414 Nicollet Mall Minneapolis, MN 554011993	Paper Service	No	SPL_SL_11-852_Interested Parties
Kenneth A.	Colburn	kcolburn@symbioticstrategies.com	Symbiotic Strategies, LLC	26 Winton Road Meredith, NH 32535413	Paper Service	No	SPL_SL_11-852_Interested Parties
George	Crocker	gwillc@nawo.org	North American Water Office	PO Box 174 Lake Elmo, MN 55042	Paper Service	No	SPL_SL_11-852_Interested Parties
Mark F.	Dahlberg	markdahlberg@nweco.com	Northwestern Wisconsin Electric Company	P.O. Box 9 104 South Pine Street Grantsburg, WI 548400009	Paper Service	No	SPL_SL_11-852_Interested Parties
Jeffrey A.	Daugherty	jeffrey-daugherty@centerpointenergy.com	CenterPoint Energy	800 LaSalle Ave Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Curt	Dieren	cdieren@dgmet.com	L&O Power Cooperative	1302 South Union Street PO Box 511 Rock Rapids, IA 51246	Paper Service	No	SPL_SL_11-852_Interested Parties
Mike	Eggl	smeier@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 58503	Paper Service	No	SPL_SL_11-852_Interested Parties
Kristen	Eide Tollefson	ket@wro-ns.net	R-CURE	P O Box 129 Frontenac, MN 55026	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Bob	Eleff		Regulated Industries Cmte	100 Rev Dr Martin Luther King Jr Blvd Room 600 St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Pam	Fergen		Henepin County Government Center CAO	A2000 300 S. Sixth Street Minneapolis, MN 55487	Paper Service	No	SPL_SL_11-852_Interested Parties
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	SPL_SL_11-852_Interested Parties
Henry	Fischer	terry.grabau@ecemn.com	East Central Energy	412 North Main Braham, MN 550060039	Paper Service	No	SPL_SL_11-852_Interested Parties
Lori	Frisk Thompson	lorifl@utplus.com	Central Minnesota Municipal Power Agency	459 S Grove St Blue Earth, MN 56013	Electronic Service	No	SPL_SL_11-852_Interested Parties
John	Fuller		MN Senate	75 Rev Dr Martin Luther King Jr Blvd Room G-17 St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Edward	Garvey	garveyed@aol.com		32 Lawton Street St. Paul, MN 55102	Paper Service	No	SPL_SL_11-852_Interested Parties
Darrell	Gerber		Clean Water Action Alliance of Minnesota	308 Hennepin Ave. E. Minneapolis, MN 55414	Paper Service	No	SPL_SL_11-852_Interested Parties
Ronald	Giteck	ron.giteck@ag.state.mn.us	Office of the Attorney General-RUD	Antitrust and Utilities Division 445 Minnesota Street, 1400 BRM Tower St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Elizabeth	Goodpaster	bgoodpaster@mncenter.org	MN Center for Environmental Advocacy	Suite 206 26 East Exchange Street St. Paul, MN 551011667	Paper Service	No	SPL_SL_11-852_Interested Parties
Bryan	Gower	N/A	APX, Inc.	224 Airport Parkway Suite 600 San Jose, CA 95110	Paper Service	No	SPL_SL_11-852_Interested Parties
Michael R.	Gravelle	michael.gravelle@avantenergy.com	Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Todd J.	Guerrero	tguerrero@fredlaw.com	Fredrikson & Byron, P.A.	Suite 4000 200 South Sixth Street Minneapolis, MN 554021425	Electronic Service	No	SPL_SL_11-852_Interested Parties
Burl W.	Haar	burl.haar@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Ronald	Harper	rharper@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 585030564	Paper Service	No	SPL_SL_11-852_Interested Parties
Bill	Heaney	billheaney@billheaney.com	IBEW Minnesota State Council	P. O. Box 65397 St. Paul, MN 551550397	Paper Service	No	SPL_SL_11-852_Interested Parties
John	Helmers	helmers.john@co.olmsted.mn.us	Olmsted County Waste to Energy	2122 Campus Drive SE Rochester, MN 55904-4744	Electronic Service	No	SPL_SL_11-852_Interested Parties
Annete	Henkel	mui@mnutilityinvestors.org	Minnesota Utility Investors	413 Wacouta Street #230 St.Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
Ashley	Houston			120 Fairway Rd Chestnut Hill, MA 24671850	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Lori	Hoyum	lhoyum@mnpower.com	Minnesota Power	30 West Superior Street Duluth, MN 55802	Electronic Service	No	SPL_SL_11-852_Interested Parties
Casey	Jacobson	cjacobson@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 58501	Paper Service	No	SPL_SL_11-852_Interested Parties
Amanda A	James	AmandaJames@alliantenergy.com	Interstate Power & Light Company - Gas	200 First St SE PO Box 351 Cedar Rapids, IA 52401-0351	Paper Service	No	SPL_SL_11-852_Interested Parties
Larry	Johnston	lw.johnston@smmpa.org	SMMPA	500 1st Ave SW Rochester, MN 55902-3303	Paper Service	No	SPL_SL_11-852_Interested Parties
Nancy	Kelly	nkelly@greeninstitute.org	The Green Institute	#110 2801 21st Avenue Minneapolis, MN 55407	Electronic Service	No	SPL_SL_11-852_Interested Parties
Julie	Ketchum		Waste Management	1901 Ames Drive Burnsville, MN 55306	Paper Service	No	SPL_SL_11-852_Interested Parties
Hank	Koegel	N/A	enXco	10 Second St., NE, Ste 107 Minneapolis, MN 55413	Paper Service	No	SPL_SL_11-852_Interested Parties
Nancy	Lange	nlange@iwla.org	Izaak Walton League of America	Suite 202 1619 Dayton Avenue St. Paul, MN 55104	Paper Service	No	SPL_SL_11-852_Interested Parties
Douglas	Larson	dlarson@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	SPL_SL_11-852_Interested Parties
Robert S	Lee	RSL@MCMLAW.COM	Mackall Crounse & Moore Law Offices	1400 AT&T Tower 901 Marquette Ave Minneapolis, MN 554022859	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Deborah Fohr	Levchak	dlevchak@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 585030564	Paper Service	No	SPL_SL_11-852_Interested Parties
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	900 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Mark	Lindquist		The Minnesota Project	1026 North Washington Street New Ulm, MN 56073	Paper Service	No	SPL_SL_11-852_Interested Parties
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E St. Paul, MN 55106	Paper Service	No	SPL_SL_11-852_Interested Parties
Mike	McDowell		Heartland Consumers Power District	PO Box 248 Madison, SD 570420248	Paper Service	No	SPL_SL_11-852_Interested Parties
Dave	McNary		Hennepin County DES	417 N. Fifth Street Minneapolis, MN 55401	Paper Service	No	SPL_SL_11-852_Interested Parties
John	McWilliams	jmm@dairynet.com	Dairyland Power Cooperative	3200 East Ave SPO Box 817 La Crosse, WI 54601-7227	Electronic Service	No	SPL_SL_11-852_Interested Parties
Valerie	Means	meansv@moss-barnett.com	Moss-Barnett	4800 Wells Fargo Center 90 South Seventh Street Minneapolis, MN 55402	Electronic Service	No	SPL_SL_11-852_Interested Parties
Brian	Meloy	brian.meloy@leonard.com	Leonard, Street & Deinard	150 S 5th St Ste 2300 Minneapolis, MN 55402	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Peder	Mewis	Peder.Mewis@senate.mn	Senate Energy, Util and Telecom Committee	Room 322, State Capitol 75 Rev. Dr. Martin Luther King Jr. Blvd. St. Paul, MN 55155-1606	Paper Service	No	SPL_SL_11-852_Interested Parties
Carl	Michaud	carl.michaud@co.hennepin.mn.us	Hennepin County DES	417 N. Fifth Street #200 Minneapolis, MN 554013206	Paper Service	No	SPL_SL_11-852_Interested Parties
Stacy	Miller	stacy.miller@state.mn.us	Office of Energy Security	State Energy Office 85 7th Place East, Suite 500 St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
David	Moeller	dmoeller@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022093	Electronic Service	No	SPL_SL_11-852_Interested Parties
Andrew	Moratzka	apm@mcmlaw.com	Mackall, Crounse and Moore	1400 AT&T Tower 901 Marquette Ave Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Carl	Nelson	cnelson@mncee.org	Center for Energy and Environment	212 3rd Ave N Ste 560 Minneapolis, MN 55401	Electronic Service	No	SPL_SL_11-852_Interested Parties
David W.	Niles		Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Thomas L.	Osteraas	tomosteraas@excelsiorenergy.com	Excelsior Energy	225 S 6th St Ste 1730 Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Greg	Oxley	N/A	MMUA	3025 Harbor Ln N Ste 400 Plymouth, MN 55447-5142	Paper Service	No	SPL_SL_11-852_Interested Parties
Joshua	Pearson	N/A	enXco, Inc.	15445 Innovation Drive San Diego, CA 92128	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Mary Beth	Peranteau	mperanteau@wheelerlaw.com	Wheeler Van Sickle & Anderson SC	Suite 801 25 West Main Street Madison, WI 537033398	Paper Service	No	SPL_SL_11-852_Interested Parties
Randall	Porter		Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Kent	Ragsdale	kentragsdale@alliantenergy.com	Alliant Energy-Interstate Power and Light Company	P.O. Box 351 200 First Street, SE Cedar Rapids, IA 524060351	Paper Service	No	SPL_SL_11-852_Interested Parties
John C.	Reinhardt		Laura A. Reinhardt	3552 26Th Avenue South Minneapolis, MN 55406	Paper Service	No	SPL_SL_11-852_Interested Parties
Kevin	Reuther		MN Center for Environmental Advocacy	Suite 206 26 East Exchange Street St. Paul, MN 551011667	Paper Service	No	SPL_SL_11-852_Interested Parties
Trudy	Richter	trichter@rranow.com	Minnesota Resource Recovery Assn.	477 Selby Avenue St. Paul, MN 55102	Paper Service	No	SPL_SL_11-852_Interested Parties
Amy	Rudolph	Amy.Rudolph@house.mn	House Env, Energy & Natural Res Committee	Rom 363, State Office Bldg. 100 Rev. Dr. Martin Luther King Jr. Blvd. St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Robert K.	Sahr	bsahr@eastriver.coop	East River Electric Power Cooperative	P.O. Box 227 Madison, SD 57042	Electronic Service	No	SPL_SL_11-852_Interested Parties
Raymond	Sand	rms@dairynet.com	Dairyland Power Cooperative	P.O. Box 8173200 East Avenue South LaCrosse, WI 546020817	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Richard	Savelkoul	rsavelkoul@felhaber.com	Felhaber, Larson, Fenlon & Vogt, P.A.	444 Cedar St Ste 2100 St. Paul, MN 55101-2136	Paper Service	No	SPL_SL_11-852_Interested Parties
Matthew J.	Schuerger P.E.		Energy Systems Consulting Services, LLC	P.O. Box 16129 St. Paul, MN 55116	Paper Service	No	SPL_SL_11-852_Interested Parties
Robert H.	Schulte	rhs@schulteassociates.com	Schulte Associates LLC	15347 Boulder Pointe Road Eden Prairie, MN 55347	Paper Service	No	SPL_SL_11-852_Interested Parties
Dean	Sedgwick		Itasca Power Company	PO Box 457 Spring Lake, MN 566800457	Paper Service	No	SPL_SL_11-852_Interested Parties
Mrg	Simon	mrgsimon@mrenergy.com	Missouri River Energy Services	3724 W. Avera Drive P.O. Box 88920 Sioux Falls, SD 571098920	Electronic Service	No	SPL_SL_11-852_Interested Parties
Beth H.	Soholt	bsoholt@windonthewires.org	Wind on the Wires	Suite 203 1619 Dayton Avenue St. Paul, MN 551046206	Paper Service	No	SPL_SL_11-852_Interested Parties
Dale	Sollom	dsollom@minnkota.com	Minnkota Power Cooperative, Inc.	PO Box 13200 Grand Forks, ND 58208-3200	Electronic Service	No	SPL_SL_11-852_Interested Parties
David	Strom	davids@mnfmi.org	Minnesota Free Market Institute	P.O. Box 120449 St. Paul, MN 55112	Paper Service	No	SPL_SL_11-852_Interested Parties
James M.	Strommen	jstrommen@kennedy-graven.com	Kennedy & Graven, Chartered	470 U.S. Bank Plaza 200 South Sixth Stree Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Linda	Taylor	taylor@fresh-energy.org	Fresh Energy	408 St Peter St Suite 220 St. Paul, MN 55102-1125	Electronic Service	No	SPL_SL_11-852_Interested Parties
Steve	Thompson		Central Minnesota Municipal Power Agency	459 S Grove St Blue Earth, MN 56013-2629	Paper Service	No	SPL_SL_11-852_Interested Parties
SaGonna	Thompson	Regulatory.Records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	SPL_SL_11-852_Interested Parties
Douglas	Tiffany	tiffa002@umn.edu	University of Minnesota	316d Ruttan Hall 1994 Buford Avenue St. Paul, MN 55108	Paper Service	No	SPL_SL_11-852_Interested Parties
Pat	Treseler	pat.jcplaw@comcast.net	Paulson Law Office LTD	Suite 325 7301 Ohms Lane Edina, MN 55439	Electronic Service	No	SPL_SL_11-852_Interested Parties
Darryl	Tveitbakk		Northern Municipal Power Agency	123 Second Street West Thief River Falls, MN 56701	Paper Service	No	SPL_SL_11-852_Interested Parties
Roger	Warehime	warehimer@owatonnautilities.com	Owatonna Public Utilities	208 South WalnutPO Box 800 Owatonna, MN 55060	Paper Service	No	SPL_SL_11-852_Interested Parties
Paul	White	paul@projectresources.net	Project Resources Corp.	618 Second Avenue SE Minneapolis, MN 55414	Paper Service	No	SPL_SL_11-852_Interested Parties
Robyn	Woeste	robynwoeste@alliantenergy.com	Interstate Power and Light Company	P.O. Box 351 200 First St SE Cedar Rapids, IA 524060351	Paper Service	No	SPL_SL_11-852_Interested Parties
Thomas J.	Zaremba		WHEELER, VAN SICKLE & ANDERSON	Suite 801 25 West Main Street Madison, WI 537033398	Paper Service	No	SPL_SL_11-852_Interested Parties

CENTRAL MINNESOTA MUNICIPAL POWER AGENCY
459 South Grove Street Blue Earth, Minnesota 56013 507-526-2193

October 24, 2011

VIA E-Filing and U.S. Mail

Dr. Burl Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

Representative Denny McNamara
Chair, Environment, Energy and
Natural Resources Committee
375 State Office Building
100 Rev. Martin Luther King, Jr. Blvd.
St. Paul, MN 55155-1206

Representative Tom Hackbarth
Chair, Energy Subcommittee
409 State Office Building
100 Rev. Martin Luther King Jr. Blvd.
St. Paul, MN 55155-1206

Senator Julie Rosen
Chair, Energy Committee
322 State Capitol
75 Rev. Martin Luther King Jr. Blvd.
St. Paul, MN 55155-1606

RE: In the Matter of the Utility Renewable Energy Cost Impact Reports Required by Minnesota Statues Section 216B.1691, Subd. 2e.
Docket No. E-999/CI-11-852

Dear Dr. Haar, Rep. Hackbarth, Rep. McNamara, Sen. Rosen,

Enclosed for filing is the CMMPA Renewable Energy Rate Impact Report, in regard to the above referenced docket.

Please contact me at (507) 526-2193 or by email at benn@cmmpa.org if you have any questions regarding this filing.

Ben Nelson
Scheduler, CMMPA

Enc.

STATE OF MINNESOTA
BEFORE THE PUBLIC UTILITIES COMMISSION

Ellen Anderson	Chair
Dr. David C. Boyd	Commissioner
J. Dennis O'Brien	Commissioner
Phyllis A. Reha	Commissioner
Betsy Wergin	Commissioner

In the Matter of the Utility Renewable Energy Cost Impact Reports Required by Minnesota Statutes § 216B.1691, Subd. 2(e)	)))	Docket No. E-999/CI-11-852 October 24, 2011

Central Minnesota Municipal Power Agency
Renewable Energy Rate Impact Report

Central Minnesota Municipal Power Agency (CMMPA) submits to the Minnesota Public Utilities Commission (Commission) its report on the impact on its rates of the Minnesota Renewable Energy Objective and Standard, pursuant to Minnesota Statutes §216B.1691, subd, 2(e) and in accordance with the State of Minnesota Public Utilities Commission Notice Establishing Docket and Filing Instructions dated September 29, 2011 and revised October 17, 2011.

Introduction

CMMPA is a municipal power agency serving 12 member cities and their municipal utilities in south central Minnesota. As a member-based entity, CMMPA is governed by a board of directors, with one director from each of the member cities - municipal utilities its serves. As the governing board, the CMMPA Board of Directors directs staff to look for resource opportunities for its members.

One-half of CMMPA's members receive a fixed allocation of hydroelectric power from the Western Area Power Administration (WAPA). Some members have system power contracts with investor owned utilities. Two members have renewable energy contracts directly with suppliers. One member owns its own renewable energy facility. The members buy supplemental power through CMMPA to meet their needs over and above their WAPA allocations, third-party purchases and city owned generation.

Supplemental resources are found by CMMPA and offered to the members. The members have the right to take or refuse the resources they are offered. Each member, therefore, has a unique portfolio of resources. We call this approach "project-oriented." Each member utility, who is interested, brings an offering in front of its governing bodies for review and approval. Each member utility is governed by a utility commission/board, city council or both. CMMPA does not own any resources. Resources that are found for the members require subscriptions from each interested member. Resources are not socialized among all of the members.

CMMPA does not provide retail service in Minnesota to end use customers. Our twelve members are distribution utilities which supply service to retail customers in their service territories. Each member has its own unique retail costs based on its system costs and the portfolio of wholesale resources that were approved by its governing bodies.

CMMPA actively pursues renewable resources to offer to its members to fill their portfolios with enough renewables so the agency can meet its renewable energy objective (REO) and renewable energy standard (RES) obligations. The Commission has consistently found that CMMPA has complied with the state-mandated goals and directives to incorporate additional renewable energy supplies into its member's portfolios. As of this writing, CMMPA is projecting compliance through 2025 with the renewable resources currently in its members' portfolios.

Rate Impact of Renewable Energy Requirements

Historically, renewable energy costs vs. market costs have generally been equivalent. During the period 2005 through 2008, the bilateral cost for renewable energy was low and the market in general was higher, driven by higher natural gas prices. Therefore, fixed price renewable energy contracts were a net benefit to rates. As a percentage, CMMPA's wind contracts were lower than market prices by 35% during this period.

During the period 2009 through 2011, bilateral costs for renewable energy were much higher and market prices dropped significantly because of a drop in natural gas prices. There was also a softening demand for energy due to the recession. Therefore, fixed price renewable energy contracts increased member rates. As a percentage, CMMPA's wind contracts were higher than market prices by 60% during this period.

When we look at the entire period 2005 through 2011, we see that our renewable energy products are either neutral or carry a very slight premium of no more than 1% above market prices. The MISO market is currently depressed. This causes renewable comparisons as well as comparisons with any other type of fixed price resource to be unfavorable.

There may be a capacity cost associated with renewable energy resources for our members in the future. Currently most have a surplus of local and contracted capacity and are not in need of procuring any additional capacity at this time. Since wind and some other types of renewable

energy generators have very little if any capacity value, this needs to be factored into future costs.

We are not able to quantify any capacity, transmission, or environmental costs at this time.

We have seen a significant increase in transmission tariff costs in general, but we have no way to determine how much if any is directly attributable to renewable energy generation. CMMPA does not own any renewable facilities associated with its renewable energy purchases. Therefore, we have not had any direct impacts caused by interconnection of renewable facilities. At the same time, we have seen congestion costs vary wildly for some members. It has increased for some while decreasing and in some cases going negative, during certain times, for others. Again we have no way to quantify the impact that may be caused by renewable generation. However, it is possible that wind generation may be responsible for some congestion charges since the member utilities that are seeing low congestion are in the area of south western Minnesota where much wind has been built (excess generation would cause low or negative congestion). The members that have seen high congestion costs are located further north and east where there is not a high concentration of wind energy resources.

It appears that the RES requirement can cause times of artificially high demand for renewable energy resources. This in turn will cause artificially high prices for these resources. Whenever the state RES requirement steps up, there is going to be an increased need for renewable generation whether real or artificial.

Uncertainty with the Production Tax Credit (PTC) makes planning difficult. The PTC helps make wind energy cost competitive with other resources. If this credit were to go away for good, wind my not be able to compete.

Economic analyses performed by CMMPA in the past have shown that wind at or below $45/MWH is the right choice economically. Some of our early wind contracts (2005-6 vintage), as well as more recent wind offers fit this criteria. Pricing during 2009 and 2010 was well above this level and should not have been contracted. However, we have a contract that started during that time period because we needed to meet the RES obligation.

CMMPA did not perform modeling for this analysis. Because of CMMPA's project oriented structure, each utility member has its own unique portfolio and makes its own decision on what resources go into its portfolio. CMMPA does not know how much of each resource a municipal utility will take until it is proposed and approved by each municipal utilities governing body which may be a utility commission, city council or both. If a municipal utility rejects a resource opportunity, CMMPA looks for more renewable opportunities or buys RECs on their behalf to fill their RES obligation.

Collectively CMMPA has a small renewables need compared to others shopping in the market. This limits our access to the economies of scale that larger projects could bring. We have seen first-hand that subscribing to a larger amount nets a better price.

Conclusion

CMMPA respectfully requests that the Commission accept for filing this report on the rate impact of renewable energy requirements.

Respectfully submitted,

CENTRAL MINNESOTA MUNICIPAL POWER AGENCY

By: 

Ben Nelson
Scheduler
Central Minnesota Municipal Power Agency
459 South Grove Street
Blue Earth, MN 56013
507-526-2193

DAIRYLAND POWER
COOPERATIVE

October 24, 2011

VIA E-Filing and U.S. Mail

Dr. Burl Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

Dear Dr. Haar:

SUBJECT: In the Matter of the Utility Renewable Energy Cost Impact Report Required by Minnesota Statutes Section 216B.1691, Subd. 2(e)

Please find enclosed the Dairyland Power Cooperative Renewable Energy Cost Impact Report. A copy of this report has also been filed electronically with the Public Utilities Commission docket system under docket number E-999/CI-11-852.

Please feel free to contact me at (608) 787-1342 or jmm@dairynet.com, if there are any questions.

Sincerely,

John M. McWilliams, P.E.
Senior Resource Planning Engineer
Integrated Planning

Enclosure

G:\StrAdmin\Letters\2011\jmm102411.doc

AFFIDAVIT OF SERVICE

I, John M. McWilliams, being first duly sworn, deposes and says:

That on the 24th day of October 2011, he served the attached.

NOTICE OF OFFICIAL SERVICE LIST

MNPUC Docket Number E-999/CI-11-852

XX By depositing in the United States Mail at the City of La Crosse, a true and correct copy thereof, properly enveloped with postage prepaid

By personal service

XX By Electronic Service

To all persons at the addresses indicated below or on the attached list:

Subscribed and sworn to before me,

A notary public, this 24TH day of

OCTOBER, 2011

NOTARY PUBLIC TODD BUCHANAN STATE OF WISCONSIN

Notary Public

State of Minnesota
Before the Public Utilities Commission

Ellen Anderson	Chair
Dr. David C. Boyd	Commissioner
J. Dennis O'Brien	Commissioner
Phyllis A. Reha	Commissioner
Betsy Wergin	Commissioner

In the matter of Dairyland Power Cooperative's	)	
Utility Renewable Energy Cost Impact Report	)	Docket Number E-999/CI-11-852
To fully comply with Minnesota Statute	)	October 24, 2011
Statute §216B.1691, Subd. 2(e)	)	

Dairyland Power Cooperative

Renewable Energy Cost Impact Report

Introduction

This report is being filed in accordance with Sec. 15, Minnesota Statutes 2010, section 216B.1691 Subd. 2(e) and State of Minnesota Public Utilities Commission (commission) filing instructions dated October 17, 2011.

The reporting requirements as stated in the legislation:

"Each electric utility must submit to the commission and the legislative committees with primary jurisdiction over energy policy a report containing an estimation of the rate impact of activities of the electric utility necessary to comply with section 216B.1691. The rate impact estimate must be for wholesale rates and, if the electric utility makes retail sales, the estimate shall also be for the impact on the electric utility's retail rates. Those activities include, without limitation, energy purchases, generation facility acquisition and construction, and transmission improvements. An initial report must be submitted within 150 days of the effective date of this section. After the initial report, a report must be updated and submitted as part of each integrated resource plan or plan modification filed by the electric utility under section 216B.2422. The reporting obligation of an electric utility under this subdivision expires December 31, 2025, for an electric utility subject to subdivision 2a, paragraph (a), and December 31, 2020, for an electric utility subject to subdivision 2a, paragraph (b)."

With headquarters in La Crosse, Wis., Dairyland Power Cooperative (Dairyland) is a generation and transmission cooperative (G&T) that provides the wholesale electrical requirements and other services for 25 electric distribution cooperatives and 16 municipal utilities in the Upper Midwest. In turn, these cooperatives and municipals deliver the electricity to consumers--meeting the energy needs of more than half a million people.

Dairyland was formed in December 1941. Today, the cooperative's generating resources include coal, natural gas, hydro, wind, landfill gas and animal waste. Dairyland delivers electricity via more than 3,100 miles of transmission lines and nearly 300 substations located throughout the system's 44,500 square mile service area.

Dairyland's service area encompasses 62 counties in five states (Wisconsin, Minnesota, Iowa, Illinois and Michigan). Dairyland, a Touchstone Energy Cooperative, has provided low-cost, reliable electrical energy and related services to its membership for nearly 70 years.

Dairyland does not have retail customers. Dairyland is a wholesale provider only. The retail function is left to the member cooperatives and the municipals. Therefore, cost impacts on retail rates are not considered in this report. The cooperatives and the municipals are different rate classes. Dairyland fulfills the renewable energy requirements of the cooperatives and assists, where needed with the municipals. Some of the municipals, such as, Lanesboro own renewable generating facilities which they use to meet RPS requirements. For this report, only the rate impact on the cooperatives is considered.

Wisconsin Wholesale Customers

The member cooperatives in Wisconsin served by Dairyland are:

1. Barron Electric Cooperative
   1434 State Hwy 25 N
   Barron, WI 54812-0040

2. Bayfield Electric Cooperative
   7400 Iron River Dam Road
   Iron River, WI 54847-0068

3. Chippewa Valley Electric Cooperative
   317 S 8th Street
   Cornell, WI 54732-0575

4. Clark Electric Cooperative
   124 N Main Street
   Greenwood, WI 54437-0190

5. Dunn Energy Cooperative
   N5725 600th Street

Menomonie, WI 54751-0220

6. Eau Claire Energy Cooperative
8214 US Highway 12
Fall Creek, WI 54742-0368

7. Jackson Electric Cooperative
N6868 County Rd F
Black River Falls, WI 54615-0546

8. Jump River Electric Cooperative, Inc.
1102 W 9th St. N
Ladysmith, WI 54848-0099

9. Oakdale Electric Cooperative
489 N. Oakwood Street
Tomah, WI 54660

10. Pierce Pepin Cooperative Services
W7725 US Hwy 10
Ellsworth, WI 54011-0420

11. Polk-Burnett
1001 State Road 35
Centuria, WI 54824-9020

12. Price Electric Cooperative
508 N Lake Ave
Phillips, WI 54555-0110

13. Richland Electric Cooperative
1027 N Jefferson St
Richland Center, WI 53581

14. Riverland Energy Cooperative
N28988 State Road 93
Arcadia, WI 54612-0277

15. St. Croix Electric Cooperative
1925 Rideway St.
Hammond, WI 54015-0160

16. Scenic Rivers Energy Cooperative
231 N Sheridan St.
Lancaster, WI 53813-1342

17. Taylor Electric Cooperative
N1831 State Hwy 13
Medford, WI 54451-9220

18. Vernon Electric Cooperative
110 Saugstad Rd.
Westby, WI 54667-1199

The municipal utilities in Wisconsin served by Dairyland are:

1. Arcadia Electric Utility
115 S. Jackson
Arcadia, WI 54612

2. Argyle Municipal Water and Electric Utility
401 E. Milwaukee St
Argyle, WI 53504

3. Cashton Municipal Light & Water Utility
811 Main St.
Cashton, WI 54619-0188

4. Cumberland Municipal Utility
1265 2nd Ave
Cumberland, WI 54829

5. Elroy Light & Water Utility
225 Main St.
Elroy, WI 53929

6. Fennimore Municipal Utilities
860 Lincoln Ave
Fennimore, WI 53809-0017

7. La Farge Municipal Utilities
105 W Main St
La Farge, WI 54639-0838

8. Merrillan Electric Light & Water Department
101 S. Main
Merrillan, WI 54754-0070

9. New Lisbon Municipal Light & Water Department
232 Pleasant St.
New Lisbon, WI 53950

10. Viola Municipal Electric Utility
106 W Wisconsin St.
Viola, WI 54664-0038

Minnesota Wholesale Customers

The member cooperatives in Minnesota served by Dairyland are:

19. Freeborn-Mower Cooperative Services
2501 Main St. E
Albert Lea, MN 56007-0611

20. People's Cooperative Services
3935 Hwy 14 E
Rochester, MN 55903-0339

21. Tri-County Electric Cooperative
31110 Cooperative Way
Rushford, MN 55971-0626

The municipal utilities in Minnesota served by Dairyland are:

11. Lanesboro Public Utilities
202 Parkway Ave S
Lanesboro, MN 55949-0333

12. City of St. Charles
830 Whitewater Avenue
St. Charles, MN 565972

Iowa Wholesale Customers

The member cooperatives in Iowa served by Dairyland are:

22. Allamakee-Clayton Electric Cooperative
229 State Hwy 51
Postville, IA 52162-0715

23. Hawkeye REC
24049 State Hwy 9
Cresco, IA 52136-0090

24. Heartland Power Cooperative
605 E. 4th Street
St. Ansgar, IA 50472-0070

The municipal utilities in Iowa served by Dairyland are:

13. Forest City Light & Power
305 N Clark St.
Forest City, IA 50436

14. Lake Mills Municipal Utilities
201 South Mill Street
Lake Mills, IA 50450

15. McGregor Municipal Utilities
126 First St.
McGregor, IA 52157-0186

16. Osage Municipal Utilities
720 Chestnut
Osage, IA 50461

Illinois Wholesale Customers

The member cooperative in Illinois served by Dairyland is:

25. Jo-Carroll Energy, Inc.
793 US Hwy 20 W
Elizabeth, IL 61028-0390

Michigan Wholesale Customers

A member cooperative of the Dairyland system, Bayfield Electric Cooperative, serves a small number of seasonal loads in the upper peninsula of Michigan.

Dairyland's Renewable Energy Requirements

Dairyland's multiple state service territory requires Dairyland to meet different state mandates for renewable energy. The states have different levels of required renewable energy, different percentage schedules, different definitions of what is considered renewable energy, and different reporting requirements. Dairyland does not separate renewable energy costs on a by state basis. Costs are socialized across the entire membership.

1. Wisconsin

The Dairyland system is less than 5% of the entire electric load in Wisconsin.

Wisconsin's Renewable Portfolio Standard (RPS) requires a statewide average of 10% renewable energy on an annual basis by 2015. Each utility has a different target. Dairyland's target is 8.44%. The target is based on the utility's average renewable

energy content during 2001, 2002 and 2003 plus 6%. Dairyland's renewable energy requirement was 2.44% with an increase to 4.44% in 2010 and then, finally, to 8.44% in 2015.

Dairyland reports its progress to the Wisconsin Public Service Commission annually with an RPS report and the retirement of credits through the Midwest Renewable Energy Tracking System (M-RETS).

2. Minnesota

The Dairyland system is less than 2% of the entire electric load in Minnesota.

Minnesota's RPS requires each utility to achieve an average of 25% renewable energy on an annual basis by 2025. The first target was 7% in 2010, followed by 12% in 2012, 17% in 2016, 20% in 2020 and 25% in 2025.

Dairyland reports its progress to the Minnesota Public Utilities Commission and the Division of Energy Resources through the following reports:

a. The annual Green Pricing Program report
b. The annual RPS report
c. The bi-annual Renewable Energy Planning Report
d. Annual Division of Energy Resources interrogatories
e. The annual Utilities report
f. The Integrated Resource Plan report
g. The annual Conservation Improvement Programs report
h. M-RETS

3. Iowa

The Dairyland system is less than 2% of the entire electric load in Iowa.

Iowa has a Mandatory Utility Green Power Option that does not specify required levels of renewable energy. Iowa requires that utilities offer customers the ability to support renewable energy generation through voluntary purchases of renewable energy on monthly electric bills. Dairyland uses its Evergreen program to meet this requirement. Retirement of Green Power credits is done through M-RETS.

4. Illinois

The Dairyland system is significantly less than 1% of the entire electric load in Illinois.

Illinois has an RPS that requires investor owned utilities to achieve an average of 25% renewable energy on an annual basis by 2025. Cooperatives, like Dairyland, are

exempt from this requirement. Dairyland does offer the Evergreen program to members in Illinois. Retirement of credits is done through M-RETS.

5. Michigan

   The Dairyland system is significantly less than 1% of the entire load in Michigan.

   Michigan has an RPS that requires all utilities to achieve an average of 10% renewable energy on an annual basis by 2025.

   Dairyland reports its progress to the Michigan Public Service Commission annually with an RPS report and the retirement of credits through the Midwest Renewable Energy Tracking System (M-RETS).

Evergreen Renewable Energy Program

Evergreen Renewable Energy Program (*Evergreen*) is a voluntary renewable energy (green power) program available to homes, farms or businesses through the local member-cooperative of the Dairyland system. *Evergreen* is for those who want to do more to support renewable energy generation. In addition to the regular electric bill, participants pay $1.50 more for a block of 100 kilowatt hours (1.5 ¢ per kWh) each month. A block of 100 kWh represents about 10% of the average residential monthly electric usage (1,000 kWh). Payments are used to cover the additional costs required to provide energy from renewable energy resources and to administer a green power program.

For this report, *Evergreen* is considered as revenue neutral and, therefore, not impacting this report.

Dairyland Power Cooperative's Renewable Generation Portfolio

Dairyland uses the following generation facilities to meet its various states' renewable energy requirements: Name, location, date of operation

1. Flambeau Hydro Station, Ladysmith, Wisconsin, 1951
2. Chandler Wind Farm, Chandler, Minnesota, 1999
3. Seven Mile Creek Landfill Gas to Energy Station, Eau Clair, Wisconsin, 2003
4. McNeilus Wind Farm, Adams, Minnesota, 2003
5. Five Star Digester, Elk Mound, Wisconsin, 2005
6. Wild Rose Digester, La Farge, Wisconsin, 2005
7. Timberline Trail Landfill Gas to Energy Station, Bruce, Wisconsin, 2006
8. Central Disposal Landfill Gas to Energy Station, Lake Mills, Iowa, 2006
9. Norswiss Digester, Rice Lake, Wisconsin, 2006
10. Tjaden Wind Turbine, Charles City, Iowa, 2007
11. Prairie Star Wind Farm, Grand Meadows, Minnesota, 2008
12. Winnebago Wind Farm, Forest City, Iowa, 2009
13. Bach Digester, Dorchester, Wisconsin, 2009

14. Norm-E-Lane Digester, Chili, Wisconsin, 2009
15. Stoneman Biomass Plant, Cassville, Wisconsin, 2010
16. About 240 residential wind, solar and hydro facilities located on member cooperative distribution lines in the Dairyland system

In addition to these renewable generating facilities, there are two anaerobic digesters under construction, another anaerobic digester that is expanding its generating capability and another existing anaerobic digester that will be selling its generation to Dairyland that will be added in 2012.

Dairyland is currently on track to meet its renewable energy requirements into the foreseeable future. Requirements are subject to change depending on changing regulatory requirements.

Modeling Methods

Dairyland did not perform any modeling for this analysis. Undertaking modeling analysis would require Dairyland to estimate what neighboring utilities would or would not have done to meet the RPS and what conventional generation they would have added or retired with or without the RPS. In addition, Dairyland would need to know what neighboring utilities are planning for load growth and their significant load losses or gains. Without this detailed information, any modeling of locational marginal prices (LMP) without the addition of renewable generation resulting from the Minnesota RPS would be based on speculative and baseless information.

Assumptions

1. Sec. 15. Minnesota Statutes 2010, section 216B.1691 Subd. 2e does not indicate whether or not the report is to be backward looking or forward looking or what time window to use. It does not specify methodology or basis for determining rate impacts of renewable energy generation. Dairyland is using only 2010 information in this report. This allows Dairyland to base its report on the most recently completed year.

2. Dairyland's analysis is based on the cost difference between its renewable generation facilities and the LMP market.

3. Renewable resources are allocated across the Dairyland system on as needed basis. Renewable generation projects are not designated as being for Minnesota or for Wisconsin or for Iowa or for Illinois or for Michigan. Therefore, Dairyland does not state that a landfill gas to energy project in Iowa is for meeting requirements in Minnesota or that a wind farm project in Minnesota is for meeting requirements in Wisconsin.

4. The cost of all renewable energy resources are socialized over Dairyland's membership base in Wisconsin, Minnesota, Iowa, Illinois and Michigan.

5. Dairyland did not consider environmental costs as a separate issue in this analysis. Environmental costs are assumed as inherent in the LMP prices or in the renewable

energy generation. For example, the digester projects and the landfill gas to energy projects each receive payments or credits for carbon reduction through methane capture and destruction. That reduces the cost of the renewable generation compared to the LMP market.

6. Dairyland sites projects within its service territory where transmission service is available. This keeps transmission costs to a minimal when interconnecting renewable energy projects.

7. The reporting requirements do not state how costs are to be stated. For this report, Dairyland states the cost impact in terms of percentage.

Rate Impact of Renewable Generation

Dairyland's wholesale rate is impacted by numerous factors besides renewable energy. The cooperatives have "all-requirements" contracts with Dairyland. The municipals meet their own capacity requirements individually and purchase energy from Dairyland. The individual cooperative's load requirements, substation needs, and coincident peak all factor into the cooperative's wholesale rate. This report is based solely on the average wholesale rate for the member cooperatives. Since this is an average across 25 member cooperatives, the rate impact is only indicative of what Dairyland's wholesale rate impact is and not an actual representation of any individual member cooperative's rate impact.

Dairyland has determined that the rate impact of renewable generation is an average increase in wholesale rates of 6.6%. The primary cost drivers for this increase are the required addition of renewable generation without the overall need for the generation, the marginal increased cost of renewable generation over conventional generation, Dairyland's relatively small size limiting its access to economy of scale from larger projects and the current state of the MISO energy market.

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
David	Aafedt	daafedt@winthrop.com	Winthrop & Weinstine, P.A.	Suite 3500, 225 South Sixth Street Minneapolis, MN 554024629	Paper Service	No	SPL_SL_11-852_Interested Parties
Christopher	Anderson	canderson@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022191	Electronic Service	No	SPL_SL_11-852_Interested Parties
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
William A.	Blazar	bblazar@mnchamber.com	Minnesota Chamber Of Commerce	Suite 1500 400 Robert Street North St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
Michael	Bradley	bradleym@moss-barnett.com	Moss & Barnett	4800 Wells Fargo Ctr 90 S 7th St Minneapolis, MN 55402-4129	Electronic Service	No	SPL_SL_11-852_Interested Parties
Jon	Brekke	jbrekke@grenergy.com	Great River Energy	12300 Elm Creek Boulevard Maple Grove, MN 553694718	Paper Service	No	SPL_SL_11-852_Interested Parties
Mark B.	Bring	mbring@ottertail.com	Otter Tail Corporation	215 South Cascade Street PO Box 496 Fergus Falls, MN 565380496	Paper Service	No	SPL_SL_11-852_Interested Parties
B. Andrew	Brown	brown.andrew@dorsey.com	Dorsey & Whitney LLP	Suite 1500 50 South Sixth Street Minneapolis, MN 554021498	Paper Service	No	SPL_SL_11-852_Interested Parties
Christina	Brusven	cbrusven@fredlaw.com	Fredrikson & Byron, P.A.	200 S 6th St Ste 4000 Minneapolis, MN 554021425	Electronic Service	No	SPL_SL_11-852_Interested Parties
Tammie	Carino	tcarino@GREnergy.com	Great River Energy	12300 Elm Creek Blvd. Maple Grove, MN 55369-4718	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Douglas M.	Carnival		McGrann Shea Anderson Carnival	Straugn & Lamb 800 Nicollet Mall, Suite 2600 Minneapolis, MN 554027035	Paper Service	No	SPL_SL_11-852_Interested Parties
Christopher	Clark	christopher.b.clark@xcelenergy.com	Xcel Energy	5th Floor 414 Nicollet Mall Minneapolis, MN 554011993	Paper Service	No	SPL_SL_11-852_Interested Parties
Kenneth A.	Colburn	kcolburn@symbioticstrategies.com	Symbiotic Strategies, LLC	26 Winton Road Meredith, NH 32535413	Paper Service	No	SPL_SL_11-852_Interested Parties
George	Crocker	gwillc@nawo.org	North American Water Office	PO Box 174 Lake Elmo, MN 55042	Paper Service	No	SPL_SL_11-852_Interested Parties
Mark F.	Dahlberg	markdahlberg@nweco.com	Northwestern Wisconsin Electric Company	P.O. Box 9 104 South Pine Street Grantsburg, WI 548400009	Paper Service	No	SPL_SL_11-852_Interested Parties
Jeffrey A.	Daugherty	jeffrey-daugherty@centerpointenergy.com	CenterPoint Energy	800 LaSalle Ave Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Curt	Dieren	cdieren@dgrnet.com	L&O Power Cooperative	1302 South Union Street PO Box 511 Rock Rapids, IA 51246	Paper Service	No	SPL_SL_11-852_Interested Parties
Mike	Eggl	smeier@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 58503	Paper Service	No	SPL_SL_11-852_Interested Parties
Kristen	Eide-Tollefson	ket@wro-ns.net	R-CURE	P O Box 130 Frontenac, MN 55026	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Bob	Eleff		Regulated Industries Cmte	100 Rev Dr Martin Luther King Jr Blvd Room 600 St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Pam	Fergen		Henepin County Government Center CAO	A2000 300 S. Sixth Street Minneapolis, MN 55487	Paper Service	No	SPL_SL_11-852_Interested Parties
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	SPL_SL_11-852_Interested Parties
Henry	Fischer	terry.grabau@ecemn.com	East Central Energy	412 North Main Braham, MN 550060039	Paper Service	No	SPL_SL_11-852_Interested Parties
Lori	Frisk Thompson	lorift@utplus.com	Central Minnesota Municipal Power Agency	459 S Grove St Blue Earth, MN 56013	Electronic Service	No	SPL_SL_11-852_Interested Parties
John	Fuller		MN Senate	75 Rev Dr Martin Luther King Jr Blvd Room G-17 St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Edward	Garvey	garveyed@aol.com		32 Lawton Street St. Paul, MN 55102	Paper Service	No	SPL_SL_11-852_Interested Parties
Darrell	Gerber		Clean Water Action Alliance of Minnesota	308 Hennepin Ave. E. Minneapolis, MN 55414	Paper Service	No	SPL_SL_11-852_Interested Parties
Ronald M.	Giteck	ron.giteck@ag.state.mn.us	Office of the Attorney General-RUD	Residential Utilities Division 445 Minnesota Street, 900 BRM Tower St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Elizabeth	Goodpaster	bgoodpaster@mncenter.org	MN Center for Environmental Advocacy	Suite 206 26 East Exchange Street St. Paul, MN 551011667	Paper Service	No	SPL_SL_11-852_Interested Parties
Bryan	Gower	N/A	APX, Inc.	224 Airport Parkway Suite 600 San Jose, CA 95110	Paper Service	No	SPL_SL_11-852_Interested Parties
Michael R.	Gravelle	michael.gravelle@avantenergy.com	Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Todd J.	Guerrero	tguerrero@fredlaw.com	Fredrikson & Byron, P.A.	Suite 4000 200 South Sixth Street Minneapolis, MN 554021425	Electronic Service	No	SPL_SL_11-852_Interested Parties
Burl W.	Haar	burl.haar@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Ronald	Harper	rharper@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 585030564	Paper Service	No	SPL_SL_11-852_Interested Parties
Bill	Heaney	billheaney@billheaney.com	IBEW Minnesota State Council	P. O. Box 65397 St. Paul, MN 551550397	Paper Service	No	SPL_SL_11-852_Interested Parties
John	Helmers	helmers.john@co.olmsted.mn.us	Olmsted County Waste to Energy	2122 Campus Drive SE Rochester, MN 55904-4744	Electronic Service	No	SPL_SL_11-852_Interested Parties
Annete	Henkel	mui@mnutilityinvestors.org	Minnesota Utility Investors	413 Wacouta Street #230 StPaul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
Ashley	Houston			120 Fairway Rd Chestnut Hill, MA 24671850	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Lori	Hoyum	lhoyum@mnpower.com	Minnesota Power	30 West Superior Street Duluth, MN 55802	Electronic Service	No	SPL_SL_11-852_Interested Parties
Casey	Jacobson	cjacobson@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 58501	Paper Service	No	SPL_SL_11-852_Interested Parties
Amanda A	James	AmandaJames@alliantenergy.com	Interstate Power & Light Company - Gas	200 First St SE PO Box 351 Cedar Rapids, IA 52401-0351	Paper Service	No	SPL_SL_11-852_Interested Parties
Larry	Johnston	lw.johnston@smmpa.org	SMMPA	500 1st Ave SW Rochester, MN 55902-3303	Paper Service	No	SPL_SL_11-852_Interested Parties
Nancy	Kelly	nkelly@greeninstitute.org	The Green Institute	#110 2801 21st Avenue Minneapolis, MN 55407	Electronic Service	No	SPL_SL_11-852_Interested Parties
Julie	Ketchum		Waste Management	1901 Ames Drive Burnsville, MN 55306	Paper Service	No	SPL_SL_11-852_Interested Parties
Hank	Koegel	N/A	enXco	10 Second St., NE, Ste 107 Minneapolis, MN 55413	Paper Service	No	SPL_SL_11-852_Interested Parties
Nancy	Lange	nlange@iwla.org	Izaak Walton League of America	Suite 202 1619 Dayton Avenue St. Paul, MN 55104	Paper Service	No	SPL_SL_11-852_Interested Parties
Douglas	Larson	dlarson@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	SPL_SL_11-852_Interested Parties
Robert S	Lee	RSL@MCMLAW.COM	Mackall Crounse & Moore Law Offices	1400 AT&T Tower 901 Marquette Ave Minneapolis, MN 554022859	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Deborah Fohr	Levchak	dlevchak@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 585030564	Paper Service	No	SPL_SL_11-852_Interested Parties
John	Lindell	agorud.ecf@state.mn.us	Office of the Attorney General-RUD	900 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Mark	Lindquist		The Minnesota Project	1026 North Washington Street New Ulm, MN 56073	Paper Service	No	SPL_SL_11-852_Interested Parties
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E St. Paul, MN 55106	Paper Service	No	SPL_SL_11-852_Interested Parties
Mike	McDowell		Heartland Consumers Power District	PO Box 248 Madison, SD 570420248	Paper Service	No	SPL_SL_11-852_Interested Parties
Dave	McNary		Hennepin County DES	417 N. Fifth Street Minneapolis, MN 55401	Paper Service	No	SPL_SL_11-852_Interested Parties
John	McWilliams	jmm@dairynet.com	Dairyland Power Cooperative	3200 East Ave SPO Box 817 La Crosse, WI 54601-7227	Electronic Service	No	SPL_SL_11-852_Interested Parties
Valerie	Means	meansv@moss-barnett.com	Moss-Barnett	4800 Wells Fargo Center 90 South Seventh Street Minneapolis, MN 55402	Electronic Service	No	SPL_SL_11-852_Interested Parties
Brian	Meloy	brian.meloy@leonard.com	Leonard, Street & Deinard	150 S 5th St Ste 2300 Minneapolis, MN 55402	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Peder	Mewis	Peder.Mewis@senate.mn	Senate Energy, Util and Telecom Committee	Room 322, State Capitol 75 Rev. Dr. Martin Luther King Jr. Blvd. St. Paul, MN 55155-1606	Paper Service	No	SPL_SL_11-852_Interested Parties
Carl	Michaud	carl.michaud@co.hennepin.mn.us	Hennepin County DES	417 N. Fifth Street #200 Minneapolis, MN 554013206	Paper Service	No	SPL_SL_11-852_Interested Parties
Stacy	Miller	stacy.miller@state.mn.us	Office of Energy Security	State Energy Office 85 7th Place East, Suite 500 St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
David	Moeller	dmoeller@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022093	Electronic Service	No	SPL_SL_11-852_Interested Parties
Andrew	Moratzka	apm@mcmlaw.com	Mackall, Crounse and Moore	1400 AT&T Tower 901 Marquette Ave Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Bryan	Morlock	bmorlock@otpco.com	Otter Tail Power Company	215 South Cascade Street Box 496 Fergus Falls, MN 565380496	Electronic Service	No	SPL_SL_11-852_Interested Parties
Carl	Nelson	cnelson@mncee.org	Center for Energy and Environment	212 3rd Ave N Ste 560 Minneapolis, MN 55401	Electronic Service	No	SPL_SL_11-852_Interested Parties
David W.	Niles		Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Thomas L.	Osteraas	tomosteraas@excelsiorenergy.com	Excelsior Energy	225 S 6th St Ste 1730 Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Greg	Oxley	N/A	MMUA	3025 Harbor Ln N Ste 400 Plymouth, MN 55447-5142	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Joshua	Pearson	N/A	enXco, Inc.	15445 Innovation Drive San Diego, CA 92128	Paper Service	No	SPL_SL_11-852_Interested Parties
Mary Beth	Peranteau	mperanteau@wheelerlaw.com	Wheeler Van Sickle & Anderson SC	Suite 801 25 West Main Street Madison, WI 537033398	Paper Service	No	SPL_SL_11-852_Interested Parties
Randall	Porter		Avant Energy Services	Suite 300 200 South Sixth Stree Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Kent	Ragsdale	kentragsdale@alliantenergy.com	Alliant Energy-Interstate Power and Light Company	P.O. Box 351 200 First Street, SE Cedar Rapids, IA 524060351	Paper Service	No	SPL_SL_11-852_Interested Parties
John C.	Reinhardt		Laura A. Reinhardt	3552 26Th Avenue South Minneapolis, MN 55406	Paper Service	No	SPL_SL_11-852_Interested Parties
Kevin	Reuther		MN Center for Environmental Advocacy	Suite 206 26 East Exchange Street St. Paul, MN 551011667	Paper Service	No	SPL_SL_11-852_Interested Parties
Trudy	Richter	trichter@rranow.com	Minnesota Resource Recovery Assn.	477 Selby Avenue St. Paul, MN 55102	Paper Service	No	SPL_SL_11-852_Interested Parties
Amy	Rudolph	Amy.Rudolph@house.mn	House Env, Energy & Natural Res Committee	Rom 363, State Office Bldg. 100 Rev. Dr. Martin Luther King Jr. Blvd. St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Robert K.	Sahr	bsahr@eastriver.coop	East River Electric Power Cooperative	P.O. Box 227 Madison, SD 57042	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Raymond	Sand	rms@dairynet.com	Dairyland Power Cooperative	P.O. Box 8173200 East Avenue South LaCrosse, WI 546020817	Electronic Service	No	SPL_SL_11-852_Interested Parties
Richard	Savelkoul	rsavelkoul@felhaber.com	Felhaber, Larson, Fenlon & Vogt, P.A.	444 Cedar St Ste 2100 St. Paul, MN 55101-2136	Paper Service	No	SPL_SL_11-852_Interested Parties
Matthew J.	Schuerger P.E.		Energy Systems Consulting Services, LLC	P.O. Box 16129 St. Paul, MN 55116	Paper Service	No	SPL_SL_11-852_Interested Parties
Robert H.	Schulte	rhs@schulteassociates.com	Schulte Associates LLC	15347 Boulder Pointe Road Eden Prairie, MN 55347	Paper Service	No	SPL_SL_11-852_Interested Parties
Dean	Sedgwick		Itasca Power Company	PO Box 457 Spring Lake, MN 566800457	Paper Service	No	SPL_SL_11-852_Interested Parties
Mrg	Simon	mrgsimon@mrenergy.com	Missouri River Energy Services	3724 W. Avera Drive P.O. Box 88920 Sioux Falls, SD 571098920	Electronic Service	No	SPL_SL_11-852_Interested Parties
Beth H.	Soholt	bsoholt@windonthewires.org	Wind on the Wires	Suite 203 1619 Dayton Avenue St. Paul, MN 551046206	Paper Service	No	SPL_SL_11-852_Interested Parties
Dale	Sollom	dsollom@minnkota.com	Minnkota Power Cooperative, Inc.	PO Box 13200 Grand Forks, ND 58208-3200	Electronic Service	No	SPL_SL_11-852_Interested Parties
David	Strom	davids@mnfmi.org	Minnesota Free Market Institute	P.O. Box 120449 St. Paul, MN 55112	Paper Service	No	SPL_SL_11-852_Interested Parties
James M.	Strommen	jstrommen@kennedy-graven.com	Kennedy & Graven, Chartered	470 U.S. Bank Plaza 200 South Sixth Stree Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	SPL_SL_11-852_Interested Parties
Linda	Taylor	taylor@fresh-energy.org	Fresh Energy	408 St Peter St Suite 220 St. Paul, MN 55102-1125	Electronic Service	No	SPL_SL_11-852_Interested Parties
SaGonna	Thompson	Regulatory.Records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	SPL_SL_11-852_Interested Parties
Steve	Thompson		Central Minnesota Municipal Power Agency	459 S Grove St Blue Earth, MN 56013-2629	Paper Service	No	SPL_SL_11-852_Interested Parties
Douglas	Tiffany	tiffa002@umn.edu	University of Minnesota	316d Ruttan Hall 1994 Buford Avenue St. Paul, MN 55108	Paper Service	No	SPL_SL_11-852_Interested Parties
Pat	Treseler	pat.jcplaw@comcast.net	Paulson Law Office LTD	Suite 325 7301 Ohms Lane Edina, MN 55439	Electronic Service	No	SPL_SL_11-852_Interested Parties
Darryl	Tveitbakk		Northern Municipal Power Agency	123 Second Street West Thief River Falls, MN 56701	Paper Service	No	SPL_SL_11-852_Interested Parties
Roger	Warehime	warehimer@owatonnautilities.com	Owatonna Public Utilities	208 South WalnutPO Box 800 Owatonna, MN 55060	Paper Service	No	SPL_SL_11-852_Interested Parties
Paul	White	paul@projectresources.net	Project Resources Corp.	618 Second Avenue SE Minneapolis, MN 55414	Paper Service	No	SPL_SL_11-852_Interested Parties
Robyn	Woeste	robynwoeste@alliantenergy.com	Interstate Power and Light Company	P.O. Box 351 200 First St SE Cedar Rapids, IA 524060351	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Thomas J.	Zaremba		WHEELER, VAN SICKLE & ANDERSON	Suite 801 25 West Main Street Madison, WI 537033398	Paper Service	No	SPL_SL_11-852_Interested Parties

STATE OF MINNESOTA
BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Ellen Anderson	Chair
David C. Boyd	Commissioner
J. Dennis O'Brien	Commissioner
Phyllis Reha	Commissioner
Betsy Wergin	Commissioner

In the Matter of Utility Renewable Energy Cost Impact Reports Required by Minnesota Statutes Section 216B.1691, Subd. 2e.	MPUC Docket No.: E-999/CI-11-852

GREAT RIVER ENERGY
INITIAL RES RATE IMPACT REPORT

Minnesota Laws 2011, Chapter 97, Section 15, amends Minn. Stat. §216B.1691 (the "Renewable Energy Standard " or "RES") by adding Subdivision 2e, which requires electric utilities, including Great River Energy ("GRE"), to submit reports to the Minnesota Public Utilities Commission ("Commission") estimating the rate impact of GRE's activities necessary to comply with the Renewable Energy Standard.[1] By notice issued in the above-referenced docket on September 29, 2011, as revised by a notice issued on October 17, 2011, the Commission established that the initial rate impact report ("Initial Report") is due to be submitted to the Commission on or before October 25, 2011. This submittal is GRE's Initial Report, and it describes the rate impacts of GRE's RES compliance activities as well as the methodology and assumptions underlying the rate impact analysis.

[1] Minn. Stat. §216B.1691, Subd. 2e also requires that the reports be submitted to the "legislative committees with primary jurisdiction over energy policy." Consequently, GRE will be submitting copies of this report to the Minnesota Senate Energy, Utilities and Telecommunications Committee and the Minnesota House of Representatives Environment, Energy and Natural Resources Policy and Finance Committee.

GRE's general approach to the rate impact analysis was to identify the costs incurred by GRE during calendar year 2010 that were directly attributable to compliance with the RES requirement. Once the direct costs of compliance were identified, the rate impact was calculated by dividing the costs by the total kWh sales to GRE's distribution members during the same time frame. The details of GRE's methodology and assumptions are described below. Based on this analysis, for the year 2010, the estimated wholesale rate impact of the RES requirement to GRE's members was $22 million or $0.002/kWh.

A. **Analysis Assumptions.**

1. The analysis considered the rate impacts to GRE's wholesale rates. GRE member costs, if any, were not included.

2. The analysis incorporated only those actual costs of compliance incurred by GRE during calendar year 2010. GRE did not model or otherwise include projections of future costs required to comply with the RES requirement.[2] The costs of compliance with the RES requirement applicable to future time periods will be included as part of GRE's integrated resource plan ("IRP") filings. GRE's next IRP filing is due to be submitted to the Commission on November 1, 2012.

3. GRE's costs of compliance were determined based on the 2010 costs of GRE's generating resources, including costs associated with both power purchase agreements and owned generating resources, that meet the definition of "eligible energy technologies" under Minn. Stat. §216B.1691, Subd. 1a., and whose Renewable Energy Credits ("RECs" or "Certificates") are tracked in the GRE

[2] The Commission's October 17, 2011 Revised Notice Establishing Docket and Filing Instructions states that the initial report should "include clear narrative explanations of the modeling methods and the assumptions used in developing the cost and rate impacts. Because GRE's analysis is based on actual 2010 costs and sales figures, GRE did not perform modeling as part of the analysis described in this Initial Report.

subaccounts within the Midwest Renewable Energy Tracking System ("MRETS"). A list of the relevant GRE resources appears in Appendix A. With respect to the listed resources that participate in the MISO market, the cost of the resource is a net cost that factors in the revenues received by GRE from offering the resource in the MISO energy market. For those resources that are interconnected to distribution facilities, the cost of the resource is a net cost that factors in the cost of the load that is offset and does not need to be purchased from the MISO energy market. The effect of the MISO market on the rate impact analysis is described in additional detail below.

4. Costs from generating resources that generate green pricing program energy and RECs were not included in the analysis (GRE's Wellspring Renewable Energy Program).

5. No estimates of carbon costs were included. Carbon costs will be included in future analyses submitted as part of future IRP filings, if applicable.

6. MISO settlement charges, such as Revenue Sufficiency Guarantee ("RSG") charges, incurred by GRE in participating in the MISO energy market were also included in the analysis, to the extent that the MISO settlement statements identify the charges to the specific generating resources listed in Attachment A.[3] MISO charges that were not directly attributed to a specific generator, such as Ancillary Services charges, were not included in the analysis.

7. Financial Transmission Rights ("FTR") savings were included in the analysis. In the MISO market, FTRs function as a partial financial hedge against congestion

[3] RSG charges are assessed by MISO to a generating resource if the resource's real time output differs from its day-ahead market commitment. Wind generating resources became subject to RSG charges on September 1, 2010, and it is expected that the market rules that impact wind generation will continue to evolve.

charges. Theoretically, FTRs may be a either a cost or a credit. During 2010, the FTRs relevant to this analysis resulted in a credit to the costs of compliance.

8. Certain transmission costs are included in the analysis if directly attributable to GRE's compliance activities. To the extent that GRE's power purchase agreements require GRE to reimburse the developer for investment in transmission improvements required to obtain a MISO Generation Interconnection Agreement, the costs are included in the cost of the power purchase agreements described above. GRE constructed transmission improvements for RES compliance in the time frame between 2007 – 2009, and incurred a cost in 2010 for these actions. The costs of the transmission improvements incurred in 2010 are included in the analysis.

9. Other indirect costs that may be attributable to the effect of wind or other renewable generation within the MISO market were not included. For example, cycling of conventional resources during times of low load and significant wind generation may contribute to increased fuel and operation and maintenance costs to the conventional resources as a result of thermal stress and accelerated wear and tear. Another example is the cost of regional transmission expansion projects that serve multiple needs and provide multiple benefits. Quantifying these types of costs and attributing these costs to particular generators or particular market participants is speculative.

10. Administrative costs incurred in 2010 were included as part of the analysis, including legal fees, and MRETS fees related to verification, tracking and compliance activities.

B. **MISO Market Comparison: Cost of Power Purchase Agreements and Owned Generation required to meet the RES requirement compared to MISO Market Revenue.**

1. Wind and Biomass Generating Resources – MISO Transmission Interconnected

The most significant cost impact that GRE identified in the 2010 rate impact analysis is the difference in the price GRE paid for wind energy under power purchase agreements ("PPA") as compared to the revenue GRE received from selling the wind energy into the MISO energy market. PPA costs incurred by GRE include the price for wind energy as well as deemed energy/tax benefit true-up payments, if applicable under the relevant PPA. The MISO market prices were determined as the actual Day-Ahead and Real-Time Locational Marginal Prices ("LMP") at the MISO wind generation pricing nodes. Consequently, GRE's offers of the wind generating resources into the MISO market resulted in revenues to GRE that were insufficient to offset the prices GRE paid under the PPAs. Another way of saying this is that, during 2010, GRE's cost of purchasing wind generation to meet the RES requirement was higher than the revenue GRE received from offering the wind energy in the MISO market. The costs of GRE's biomass resources were similarly compared to the MISO revenue received by selling the energy from the biomass resources in the MISO market. MISO settled wind and biomass resources resulted in a net cost to GRE of **$20,907,000.**

2. Wind and Biomass Generating Resources - Distribution Interconnected

The cost of GRE's wind and biomass facilities interconnected to the distribution system were compared to the cost of average load LMP, as energy from these

facilities is assumed to reduce the quantity of GRE load submitted to MISO. This resulted in a cost to GRE of **$1,141,000.**

C. **RES Rate Impact Calculation.**

Generating Resource Costs	$22,048,000
FTR Costs (negative = benefit)	($ 755,000)
Transmission Costs	$ 609,000
Administrative Costs	$ 184,000
Total Costs	$22,086,000

2010 Total Member Wholesale Sales = 11,252,558,271 kWh

$22,086,000 ÷ 11,252,558,271 kWh = $0.002/kWh Wholesale RES Rate Impact

D. **Conclusion.**

GRE's RES compliance actions increased GRE's wholesale rate in 2010 by $22 million, or $0.002 per kWh. GRE's costs of compliance were determined based on the 2010 costs of GRE's generating resources, including costs associated with both power purchase agreements and owned generating resources, that meet the definition of "eligible energy technologies" under Minn. Stat. §216B.1691, Subd. 1a., and whose Renewable Energy Credits ("RECs" or "Certificates") are tracked in the GRE subaccounts within the Midwest Renewable Energy Tracking System ("MRETS"). The costs of compliance also include FTRs, transmission, and administrative costs. The costs of compliance with the RES requirement applicable to future time periods will be included as part of GRE's integrated resource plan ("IRP") filings.

Dated: October 25, 2011

Respectfully submitted,

GREAT RIVER ENERGY

By _____

Laureen Ross McCalib
Manager, Resource Planning
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369
(763) 445-6103

By _____

Mark Rathbun
Renewable Energy Lead
Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369
(763) 445-6104

Appendix A

Great River Energy's Minnesota RES Compliance Generating Resources

M-RETS ID	Facility Name
	GRE Registered
M261	Prairie Star Wind Farm (High Prairie)
M262	Trimont Wind
M341	Elk River Station
M342	Elk River Municipal Utilities Landfill
M488	West River Dairy
M491	Riverview Dairy
	Third-Party Registered; Certificates Transferred
M530	Elm Creek (Registered by Iberdrola Renewables)
M578	Ashtabula II (Registered by NextEra Energy Resources)
M471	Brewster Wind (Registered by Nobles Cooperative Electric)

PUBLIC DOCUMENT

STATE OF MINNESOTA

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Ellen Anderson	Chair
Dr. David C. Boyd	Commissioner
J. Dennis O'Brien	Commissioner
Phyllis A. Reha	Commissioner
Betsy Wergin	Commissioner

IN THE MATTER OF THE UTILITY RENEWABLE ENERGY COST IMPACT REPORTS REQUIRED BY MINNESOTA STATUTES SECTION 216B.1691, SUBD. 2(e)	DOCKET NO. E999/CI-11-852

HEARTLAND CONSUMERS POWER DISTRICT'S RENEWABLE ENERGY RATE IMPACT REPORT

Report Background:
Pursuant to Minnesota Laws 2011, Chapter 97, Section 15 that amended Minn. Stat. § 216B.1691 by adding Subdivision 2(e) and the Minnesota Public Utilities Commission Notice, dated October 17, 2011, in the above reference docket, please accept this filing as Heartland Consumers Power District's (Heartland) Renewable Energy Rate Impact Report.

Minn. Stat. § 216B.1691 Subdivision 2e requires in relevant part the following:

Each electric utility must submit to the commission and the legislative committees with primary jurisdiction over energy policy a report containing an estimation of the rate impact of activities of the electric utility necessary to comply with section 216B. 1691. The rate impact estimate must he for wholesale rates and, if the electric utility makes retail sales, the estimate shall also he for the impact on the electric utility's retail rates. Those activities include, without limitation, energy purchases, generation facility acquisition and construction, and transmission improvements. An initial report must be submitted within 150 days of the effective date of this section. After the initial report, a report must be updated and submitted as part of each integrated resource plan or plan modification filed by the electric utility under section 216B.2422.

The Commission has requested in their Notice, dated September 29, 2011, that the reports include clear narrative explanations of the modeling methods and the assumptions used in developing the cost and rate impacts for both past and future periods, including but not limited to: comparative energy and capacity sources and costs, environmental costs and benefits, and transmission costs and benefits. The reports should also include a discussion of any limitations, sensitivities, and uncertainties in the analyses and how those factors could impact the results.

Company Background:
Created in 1969 under the Consumers Power District Law, Heartland is a public corporation and political subdivision of the state of South Dakota. Headquartered in Madison, South Dakota, Heartland provides low-cost, reliable power as well as energy services and community development programs to customers in a three state region. Heartland is empowered by the Consumers Power District Law to finance, own and operate anywhere, singly or jointly, any electric light and power plants, lines or systems for the generation, transmission or transformation of electric power and energy. Heartland is authorized to sell, transmit and deliver electric power and energy at wholesale to distributors within and outside the boundaries of South Dakota.

Heartland is governed by a ten-member, elected board of directors. The board functions in the best interest of our customers and emphasizes reliable and economical generation and delivery systems.

The vast majority of Heartland's customers receive a federal hydropower allocation from Western Area Power Administration (WAPA). Heartland provides those customers with their supplemental power and energy needs above the WAPA allocation. Heartland provides its remaining customer base with a full requirements supply.

Heartland's RES Requirements:
Heartland was not initially included in the definition of "electric utility" under §216B.1691 - Renewable Energy Objectives. In 2007, the statute was revised to include Heartland and Heartland was eventually ordered by the Minnesota Public Utilities Commission to comply with the RES in their November 12, 2008 Order. As such, Heartland executed a PPA with Wessington Wind LLC in order to meet Minnesota's renewable energy objectives and RES requirements.

Per MN Public Utility Commission Order, Heartland is only responsible to meet the RES under Minn. Stat. §216B.1691 for its full requirements and supplemental load serving obligations. Heartland isn't responsible for meeting the RES for its customers load served by the federal hydropower allocations. Given Heartland's current customer base and projected retail load served in Minnesota, Heartland will be able to meet each milestone of Minnesota's RES solely from the 20 year PPA it executed for the output of the Wessington Springs Wind Energy Center.

Rate Impact of Renewable Energy Requirements:
For this analysis, Heartland used the following assumptions:

- Base Year: 2010
- Heartland's Annual Wind Capacity Factor: 41.5%
- Individual Turbine Size: 1.5 MW
- Existing renewable resource: 51 MW nameplate capacity
- Annual Load Growth: 1%
- Annual Market Price Increase: 3%

- Annual Resource Cost Increase: 3% (Unless otherwise known)
- HCPD RES Requirement to follow Minn. Stat. §216B.1691
- No new customer growth; only current customer base

Upon being ordered to comply with Minn. Stat. §216B.1691, Heartland procured 51 MW of nameplate wind capacity to meet its RES needs through 2025. All of Heartland's base power supply models use this amount of renewable energy.

Heartland's 2010 total Minnesota customer load not including federal hydropower allocations was 657,345 MWhs. As such, Heartland's RES requirement in 2010 was to generate 46,015 MWhs of renewable energy that could be converted into renewable energy credits (RECs). To meet that RES requirement, it was determined that Heartland would have had to procure 12.7 MW of installed wind capacity. Given the assumed turbine size, Heartland needed to install a total of 13.5 MW of renewable nameplate capacity. To determine the rate impact to Heartland's wholesale rates in 2010, 13.5 MW of installed wind capacity was backed out of the 2010 power supply model. Since Heartland made the decision to procure an amount of wind capacity above its needs, the remaining amount of wind was left in the power supply. This allows the resource assumptions to remain constant and provides an analysis of the impact of Heartland's RES requirement on surplus sales revenue and purchase power requirements in the base year.

In the base year, the RES rate impact on Heartland's wholesale electric rates was +1.40 mils/kWh. Stated another way, it cost Heartland 1.40 mils/kWh in 2010 to comply with the Minnesota RES.

The same procedure was used in power supply models for years 2011-2020. For the purposes of this analysis, Heartland assumed that it entered into long term agreements to procure its renewable energy needs. For example, when the RES requirement moves to 12% in 2012, the model indicates that Heartland needs 22.5 MW of installed wind capacity. If requirements in future periods show less of a need for installed wind capacity, Heartland held the 22.5 MW level constant.

For future periods, Heartland analyzed the incremental impacts of the RES from 2011-2020 instead of repeating the base year procedure above. Heartland analyzed the rate impacts with and without removing the installed wind capacity to determine the true impact the additional renewable energy had on rates. Year after year, several variables change in Heartland's power supply models including, but not limited to, expiring PPAs, changes to existing PPAs, and known changes in customer loads. Given the complexity of the model, Heartland has chosen to summarize the rate impact of the renewable energy requirement in an average annual number.

The average annual impact on Heartland's wholesale electric rates was +0.33 mils/kWh. Stated another way, it cost Heartland 0.33 mils/kWh each year from 2011-2020 to comply with the Minnesota RES.

Heartland has not realized any additional ancillary costs, transmission costs, costs of backing down/starting other generation sources, back up generation costs, nor realized any costs of making PPA holders whole that can be attributable to the RES to date. As such, these items have been left out of the analysis.

Please accept this report on the rate impact of the renewable energy requirement to Heartland.

Dated this 25th day of October, 2011.

Respectfully submitted,

/s/
Nate Jones
Market Operations Manager

Interstate Power and Light Company
Minnesota Renewable Energy Cost Impact Report

The following is an estimate of the Minnesota Renewable Energy Standard (RES) on Interstate Power and Light Company's (IPL) Minnesota rates. This analysis uses estimates and projections, and as such should not be interpreted as a "rate promise".

I. Historical Impact of 2007-2010 RES Facility Additions

To provide the estimated historical impact of the RES facility additions on rates, IPL compared the Day-Ahead Locational Marginal Prices (LMPs) to acquired renewable costs for the years 2007 through 2010. This comparison provides a cost delta between the acquired renewables and potential replacement LMPs.

There have been only two significant renewable additions since the RES was implemented in 2007: the Hardin Hilltop Windfarm PPA with a commercial operation of May 2007, and the IPL owned Whispering Willow Windfarm East with a commercial operation of December 2009.

The $/MWH impact and annual revenue percentage impact is shown in Table 1 below, with negative values indicating that the renewable investments were less costly than LMPs.

Table 1 – Historical RES Impact

Year	RES Impact $/MWH	RES Annual Revenue Impact %
2007	$(0.01)	-0.01%
2008	$(0.02)	-0.03%
2009	$0.07	0.09%
2010	$0.93	1.02%

The acquired renewables were slightly lower than LMPs in 2007 and 2008, and slightly higher in 2009 and 2010. Driving results for 2009 and 2010 were the change to the economy which resulted in drastically lower LMPs as shown in Table 2 below. The addition of Whispering Willow to the portfolio also had an impact relative to LMPs.

Table 2 – Average Day-Ahead LMPs

Year	Off Peak LMP $/MWH	On Peak LMP $/MWH
2007	$32.65	$63.83
2008	$31.62	$63.88
2009	$17.59	$33.04
2010	$22.38	$39.66

In comparison, the PPA price for Hardin Hilltop is **[TRADE SECRET DATA BEGINS** **TRADE SECRET DATA ENDS]**, and for this analysis IPL assumed a fixed price for Whispering Willow of $68.39/MWH. It is important to recognize the renewable portfolio additions are made to meet long term needs and cost projections, so a short term backward looking analysis does not paint the full picture.

CO2/Externality Discussion

A CO2 externality of roughly $38/ton would offset the 2010 renewable cost delta. This assumes an avoided non-baseload output emission rate of 1972.20 lb/MWH[1].

II. Future Impact of 2007-2010 RES Facility Additions

To provide the estimated impact of 2007-2010 RES facility additions on future rates, IPL used its 2010 Integrated Resource Plan (IRP) Electric Generation Expansion Analysis System (EGEAS) Reference Case[2]. Two cases were run – one case with Hardin Hilltop and Whispering Willow in the model, and one case with Hardin Hilltop and Whispering Willow not in the model.[3] The EGEAS model considers costs over the time period of 2010 to 2025 with an additional 35 year extension period to capture end effects.

The EGEAS analysis indicates lower Present Value Revenue Requirements (PVRR) due to the addition of Hardin Hilltop and Whispering Willow. The delta is $55 million on a $14 billion plan (0.4%). With Hardin Hilltop and Whispering Willow in the model, the EGEAS annual revenue requirements are slightly higher during 2010-2018 and slightly lower for 2019-2025 and assumedly into the extension period. The deltas are shown in Figures 1 and 2 below.

[1] USEPA eGRID2010 Version 1.1 Non-baseload output emission rate for CO2, MRO NERC region.
[2] Filed in November 2010, Docket No. E-001/RP-08-673
[3] IPL modified its EGEAS files to include $68.39/MWH costs for Whispering Willow. The original filing did not include a cost for Whispering Willow as it was considered a committed facility with sunk costs.

Figure 1 – 2007-2010 RES Additions Impact on Future Rates, % of Annual Revenue Requirements

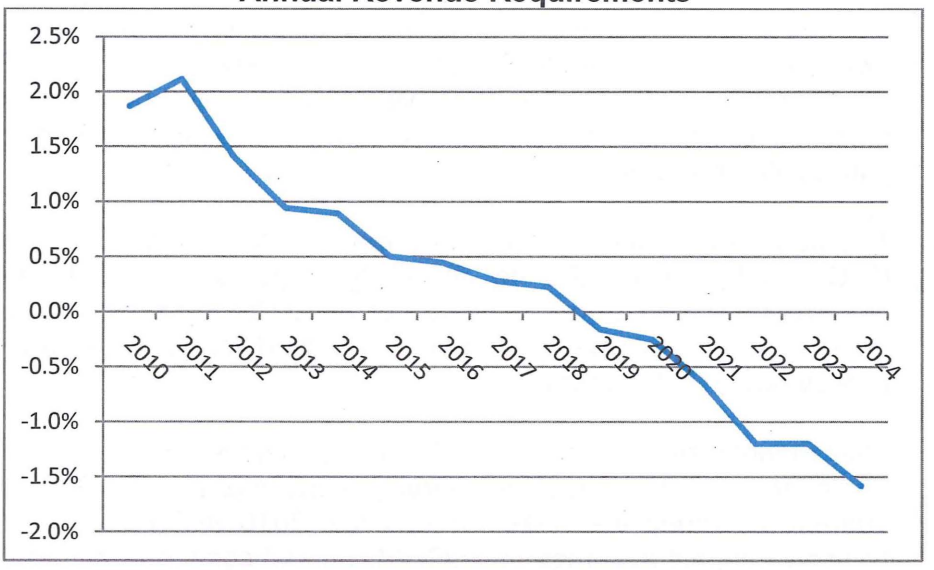
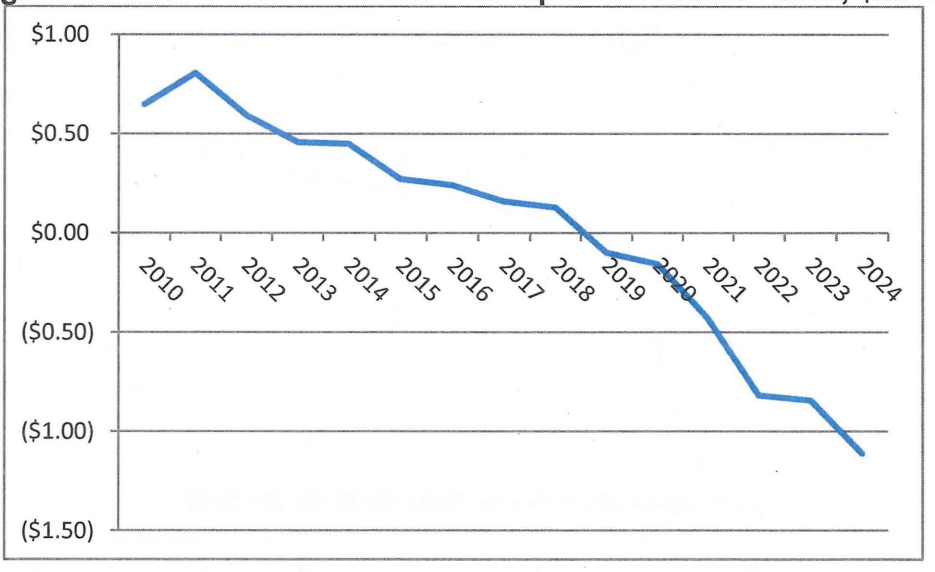


Figure 2 – 2007-2010 RES Additions Impact on Future Rates, $/MWH



CO2/Externality Discussion

As noted previously, the EGEAS analysis indicates on a total PVRR basis that costs are lower with the addition of Hardin Hilltop and Whispering Willow by $55 million. This EGEAS analysis does not include CO2 costs and externalities, so presumably the delta would further increase in favor of the added renewables had externalities and CO2 costs been included.

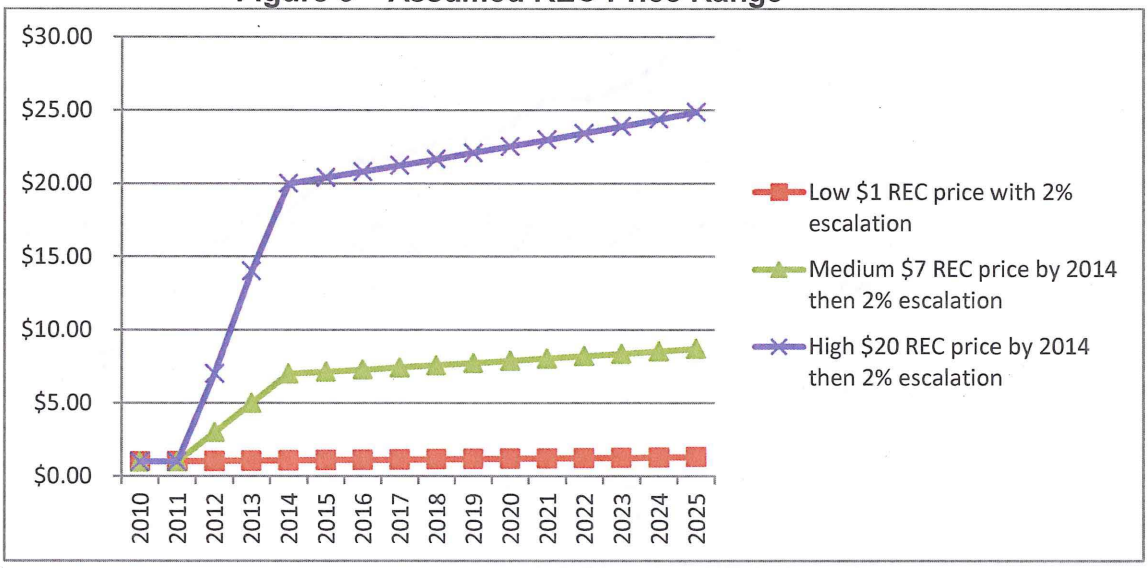
III. Future Impact of RES Compliance through REC Purchases

IPL allocates RECs between its Iowa and Minnesota jurisdictions. The Minnesota territory has higher renewable percentage requirements than Iowa, but is roughly 5.5% of the IPL system. Iowa renewable requirements are low[4] relative to Minnesota, which creates a surplus of Iowa allocated RECs. The Iowa surplus is well above projected Minnesota shortfalls.

The current conditions of low REC market prices and an Iowa allocated REC surplus allow IPL to meet its ongoing Minnesota renewable requirements through the purchase of RECs from the Iowa customers to the Minnesota customers as needed. As conditions change, IPL will need to reevaluate that strategy.

The Figures below show the RES compliance cost impact with the purchase of RECs based on varying REC costs. The REC purchase quantity assumed was taken from IPL's 2010 IRP Appendix 7A. The Revenue Impact assumes the EGEAS annual costs noted in the previous section as a baseline.

Figure 3 – Assumed REC Price Range



[4] IPL's Iowa renewable requirement is to acquire 49.8 MW nameplate. This equates to roughly 0.8% of retail sales.

Figure 4 – REC Purchase $/MWH Impact

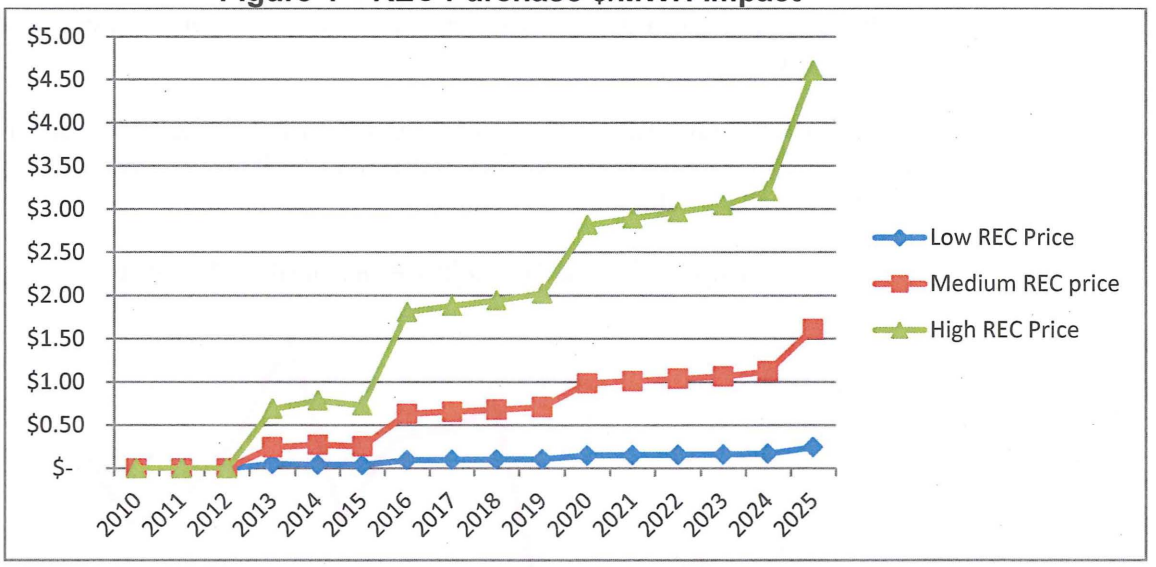
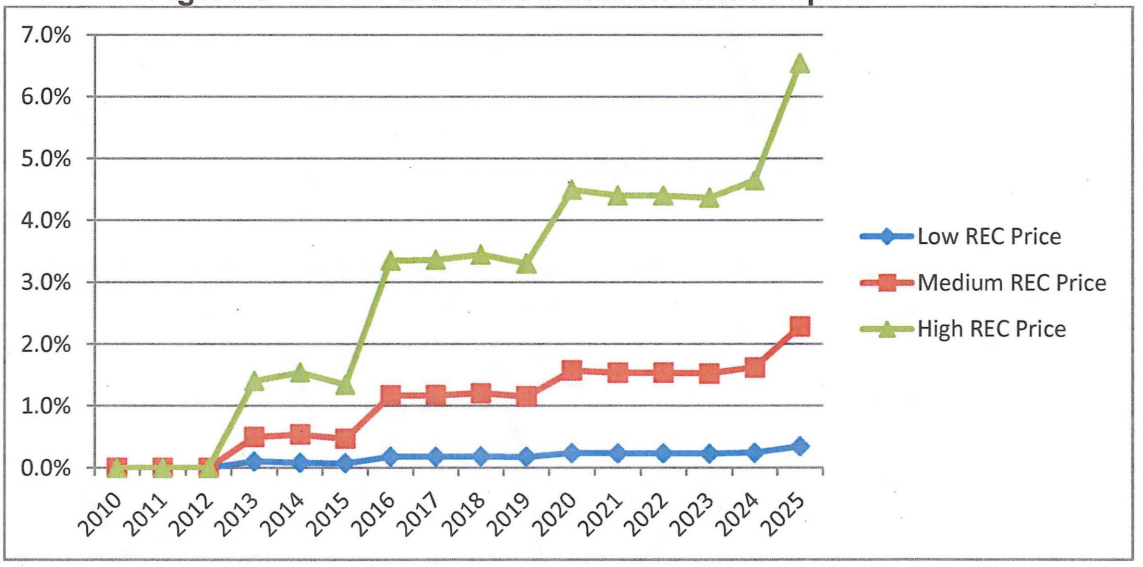


Figure 5 – REC Purchase Annual Revenue Impact



IV. Future Impact of RES Compliance through Resource Additions

As an alternative to REC purchases, IPL could expand its renewable portfolio through construction or PPA acquisition. To estimate this alternative, IPL took its 2010 IRP Reference Case, and forced in additional wind so that the entire IPL system would meet the Minnesota RES percentage requirements. IPL would not actually ramp up its renewable portfolio so that Iowa customers would meet Minnesota RES percentage requirements, but this analysis is intended to provide equivalent cost

deltas if IPL were to construct or acquire smaller resources for Minnesota needs and wholly assign those incremental revenue requirements to Minnesota customers.

With an additional 1100 MW of wind added to the EGEAS model, PVRR increased $266 million on a $14 billion base (+1.9%). Impacts are shown in Figures 6 and 7 below.

Figure 6 – Portfolio Increase $/MWH Impact

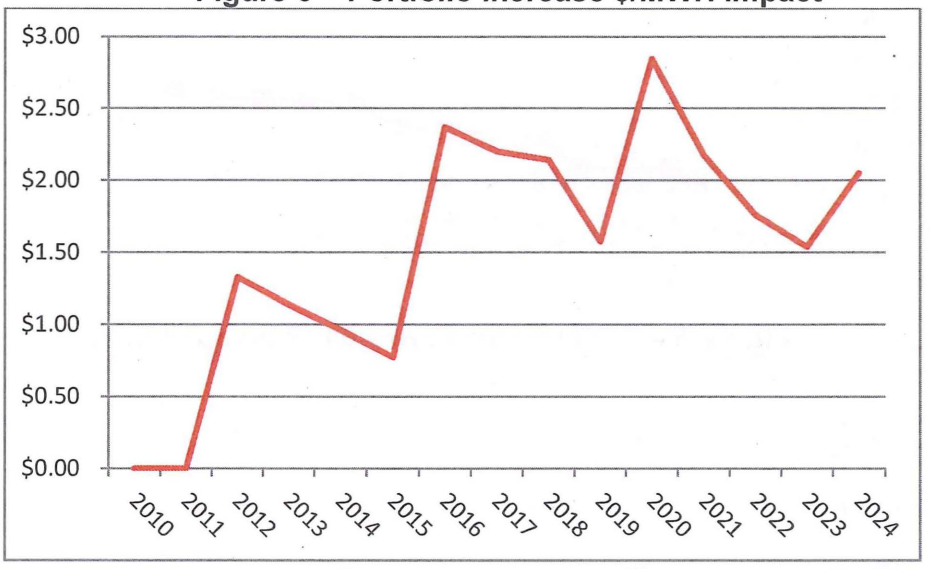
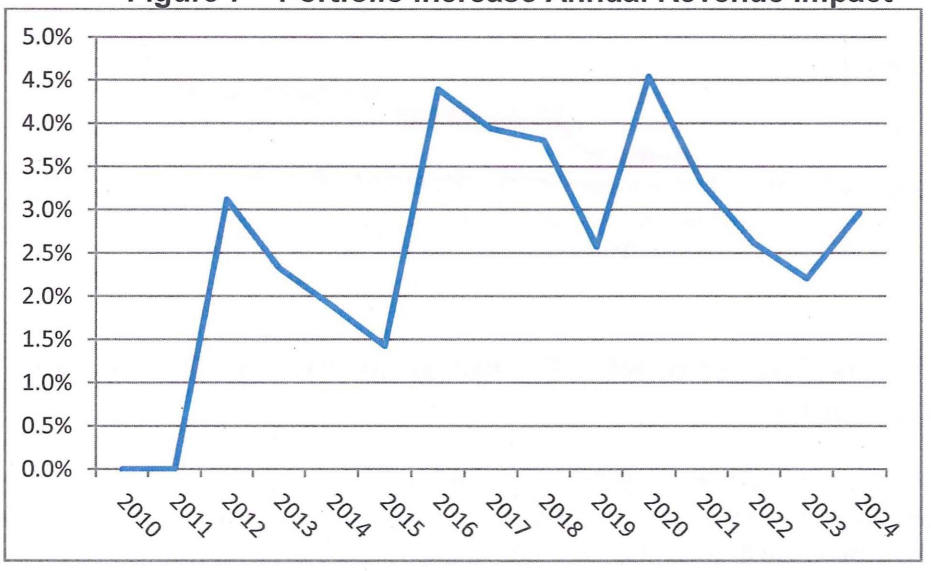


Figure 7 – Portfolio Increase Annual Revenue Impact



CO2/Externality Discussion

This EGEAS analysis, which does not include externalities and carbon costs, indicates an increased cost to build wind to meet the 25% RES. However, in its 2010 IRP IPL analyzed three carbon scenarios and found that wind is added optimally in large quantities due to the monetization of carbon. Thus, the value of wind additions is highly dependent on CO2 assumptions. The three carbon scenarios from the IRP are:

- Wood Mackenzie CO2 Scenario[5] – which selected 1900 MW of wind optimally.
- Minnesota[6] High $34/ton CO2 Cost Scenario – which selected 1700 MW of wind optimally.
- Minnesota Low $9/ton CO2 Cost Scenario – which selected 600 MW of wind optimally.

Also worth noting is that the assumption about CO2 significantly drives PVRR. These CO2 scenarios increased PVRR by +48%, +47%, and +15% over the Reference Case, respectively.

V. Discussion of Assumptions

Costs are generally expressed in nominal terms, except for EGEAS PVRR. EGEAS costs are generation oriented and do not include transmission and distribution costs. M-RETS participation costs and staff time as a result of increased renewables are not included.

System transmission upgrade costs to support higher levels of wind are not included. The following two transmission system studies are noteworthy:

- The 2006 Minnesota Wind Integration Study[7] estimated wind integration operating costs at $2.11 to $4.41/MWH for 15% to 25% penetration levels.
- In its Transmission Expansion Plan (MTEP) 2011 Draft[8], MISO staff recommends a Multi Value Project (MVP) portfolio be approved by the MISO Board of Directors which would enable 41 million MWH of wind energy per year to meet renewable energy mandates and goals. However MISO notes other benefits beside wind expansion such as maintaining system reliability and supporting other generation sources such as natural gas. MISO states that the MVP portfolio would "Provide an average annual value of $1,279 million

[5] Wood Mackenzie CO2 pricing at $14.35/ton to $38/ton in 2025. Other modeling inputs such as fuel costs, economy energy costs, as well as SO2 and NOx costs change in this scenario consistent with Wood Mackenzie's projections.
[6] Minnesota CO2 costs begin 2012.
[7] http://www.puc.state.mn.us/portal/groups/public/documents/pdf_files/000435.pdf
[8] https://www.midwestiso.org/_layouts/MISO/ECM/Redirect.aspx?ID=117133

over the first 40 years of service, at an average annual revenue requirement of $624 million."[9]

VI. Summary

IPL shares the following insights:

- IPL's recent renewable additions have not had a significant rate impact relative to LMPs. The largest impact being only $1/MWH and 1% additional revenue requirements for 2010, without externalities.
- Recent renewable additions are appropriate when looking to the future with EGEAS PVRR savings of 0.4%, without externalities and CO2 costs. Annual impacts are in the range of +/- $1/MWH and +/- 2% annual revenue.
- RES compliance through REC purchases can be cost effective provided REC costs remain low, with annual impacts generally at or less than $1/MWH and 1.5% of annual revenue.
- RES compliance through REC purchases becomes sizable for medium REC prices in 2025, and high REC prices beginning in 2016, with impacts of +$1.50 to +$4.61/MWH, and annual revenue impacts of +2.3% to +6.5%.
- The cost of RES compliance through resource addition is highly dependent on CO2 assumptions.
    - Without a carbon cost the EGEAS PVRR impact is +1.9%. Annual revenue impacts are +1.4% to +4.5% and annual energy cost impacts of +$0.77 to +$2.85/MWH.
    - With a carbon cost, the model selects large quantities of wind optimally to reduce costs. However, adding the assumption of carbon costs significantly increases PVRR.

[9] Page 45 of MISO Transmission Expansion Plan 2011

minnesota power
AN ALLETE COMPANY

Lori Hoyum
Policy Manager
218-355-3601
lhoyum@mnpower.com

October 25, 2011

Via Electronic Filing and U.S. Mail

Dr. Burl W. Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

Senator Julie Rosen
Chair, Energy Committee
322 State Capital
75 Rev. Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155-1606

Representative Tom Hackbarth
Chair, Energy Subcommittee
409 State Office Building
100 Rev. Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155-1206

Representative Denny McNamara
Chair, Environment, Energy and Natural Resources Committee
375 State Office Building
100 Rev. Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155-1206

Re: In the Matter of Minnesota Power's Utility Renewable Energy Cost Impact Report Required by Minn. Stat. § 216B.1691, subd. 2e.
Docket No. E-999/CI-11-852

Dear Dr. Haar, Sen. Rosen, Rep. Hackbarth, Rep. McNamara:

Minnesota Power respectfully submits its Compliance Report in the above-referenced Docket. An Affidavit of Service is included.

Please contact me at the number or email address listed above if you have any questions regarding this filing.

Yours truly,

Lori Hoyum

kl
Attachment
c: Service List

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

****

In the matter of Utility Renewable Energy Cost Impact Reports Required by Minn. Stat. § 216B.1691, subd. 2e.	Docket No. E-999/CI-11-852 MINNESOTA POWER **COMPLIANCE REPORT**

****

SUMMARY

Minnesota Power respectfully submits this Report to the Minnesota Public Utilities Commission in compliance with Minn. Stat. § 216B. subd. 1691, subd. 2e and the Commission's Notice dated September 29, 2011.

TABLE OF CONTENTS

TABLE OF FIGURES

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

****

In the matter of Utility Renewable Energy Cost Impact Reports Required by Minn. Stat. § 216B.1691, subd. 2e.	Docket No. E-999/CI-11-852 MINNESOTA POWER **COMPLIANCE REPORT**

****

I. INTRODUCTION AND LEGISLATIVE BACKGROUND

Minnesota Power respectfully submits its Renewable Energy Standard ("RES") rate impact report ("Report") to the Minnesota Public Utilities Commission ("Commission") in compliance with Minn. Stat. § 216B.1691, subd. 2e and the Commission's Notice ("Notice") dated September 29, 2011 (Docket No. E999/CI-11-852). The statute reads in part - "Each electric utility must submit to the Commission and the legislative committees with primary jurisdiction over energy policy a report containing an estimation of the rate impact of activities of the electric utility necessary to comply with section 216B.1691..." Minnesota Power believes this Report to be in full compliance with the Commission's Notice as well as the language and objective of the statute.

The Minnesota Next Generation Energy Act ("2007 Act") helped to create a framework for utilities to implement expanded renewable energy portfolios. The centerpiece of the 2007 Act is the 25x25 goal (25 percent of all types of Minnesota's energy from renewable resources by 2025). When the 2007 Act was passed, utilities began, or in several cases, continued the process of incorporating and planning for the introduction of expanded renewable energy portfolios. During the 2011 legislative session, legislation was passed which requires utilities to report the impacts of the 2007 Act on utility customers. The Statute is intended to provide a mechanism for determining and communicating to legislators and constituents what utility rates would be if the 2007 Act was never implemented.

Beginning in June 2011, Minnesota Power and other electric utilities worked collaboratively with stakeholders to create a framework for the Report that is believed to satisfy the statutory language. Further direction was given in Notices dated September 29, 2011 and

October 17, 2011 in which the Commission requests "that the reports include clear narrative explanations of the modeling methods and assumptions used in developing the cost and rate impacts for both past and future periods, including but not limited to: comparative energy and capacity sources and costs, environmental costs and benefits, and transmission costs and benefits. The reports shall also include a discussion of any limitations, sensitivities, and uncertainties in the analyses and how those factors could impact the results." Much of the analysis requested in the Notice has been previously supplied through Minnesota Power's 2010 Integrated Resource Plan ("2010 Plan").[1] This Report summarizes the relevant analysis provided in the 2010 Plan and also highlights how Minnesota Power's projects are performing to date.

Minnesota Power is focused on diversifying its energy resource portfolio and has taken significant steps over the last five years to develop and begin implementation of a renewable plan. This diversification is intended to create a more flexible Minnesota Power energy supply with reduced carbon and other emissions while maintaining competitive rates. The focus on renewable energy in Minnesota Power's diversification is due in part to the portion of the 2007 Act that establishes renewable energy requirements for electric utilities, commonly referred to as the RES. As well, environmental policy is trending toward additional restrictions on non-carbon emissions including sulfur oxides, nitrogen oxides and mercury, which will be reduced in part through increased renewable energy supplies on Minnesota Power's system.

It is important to note that renewable resources are not inevitably the high-cost resource option. This is particularly the case when considering Minnesota Power's exceptional access to high quality wind resources. Minnesota Power is in the unique position of combining low cost wind resources with existing strategic transmission assets. The Department of Commerce – Division of Energy Resources ("the Department") advocated for an additional 200MW of wind generation additions by 2013 to be included in the Company's 2010 Plan. Based on Point 4 of the Commission's 2010 Plan Order, the Department's encouragement and Minnesota Power's on-going evaluation of its renewable plan, the Company accelerated the development of an additional 100MW of wind via the North Dakota-based Bison 3 Wind Project ("Bison 3") and filed its Bison 3 Plan petition[2] on June 21, 2011. Aside from Bison 3, which the Commission approved on October 20, 2011, Minnesota Power's completed and planned renewable projects

[1] Docket No. E015/RP-09-1088
[2] Docket No. E015/M-11-626

include: power purchase agreements for the output of the North Dakota-based Oliver I and Oliver II Wind Energy Centers equaling a combined total of 100MW, Taconite Ridge wind farm (25MW) in Northeast Minnesota,[3] North Dakota-based Bison 1 and Bison 2 wind projects planned for final construction of initial operation by the end of 2011 and 2012 (respectively) equaling a total of 187MW, plus an additional North Dakota wind project anticipated for a future date and a smaller biomass energy only upgrade at the Hibbard facility.

This Report confirms that Minnesota Power has capitalized on the prudent timing of cost effective projects and strategic moves such as the High Voltage Direct Current ("DC") Line acquisition in order to provide lower cost renewable energy resources for its customers.[4]

The Report is comprised of three sections. The first section reviews the "Past Period" years beginning with 2007 through 2010. The Past Period section compares project costs with the actual energy prices within the Midwest Independent Transmission System Operator ("MISO"). The second section reviews "Future RES Compliance" and will include years 2011 through 2026. This section compares projected project costs against forecasted energy prices. The third and final section includes a review of the cost differences for power supply expansion with and without the RES mandate.

[3] Oliver I Wind Energy Center (see Docket No. E015/M-05-974); Oliver II Wind Energy Center (see Docket No. E015/M-07-216); Taconite Ridge Wind Energy Center (see Docket No. E015/M-07-1064)

[4] The DC Line runs from the Square Butte Substation in Center, North Dakota to Minnesota Power's Arrowhead Substation in Duluth, Minnesota and allows the vast wind resources available in North Dakota to be efficiently delivered to customers in northeastern Minnesota.

II. RATE IMPACT FOR TO-DATE RES COMPLIANCE - PAST PERIOD 2007-2010

This section provides a comparison between the costs of Minnesota Power's RES projects currently implemented and the regional market cost of energy for the 2007 through 2010 time period. This approach relies upon publicly available data and will illustrate how the renewable energy developed and acquired by Minnesota Power to comply with the RES compares to the average cost of energy available from regional market on a yearly basis. This comparison does not factor in how long-term resource decisions were altered by implementation of the 2007 Act. Ideally, in the absence of these projects, Minnesota Power would have procured long-term energy resources rather than relying on purchasing power on the regional energy market. However, Minnesota Power believes that the chosen methodology of comparing how the costs of these resources performed against the appropriate energy market is the most reasonable approach for illustrating the costs of compliance with the RES.

The regional market value for each renewable resource was established by quantifying the average yearly on-peak and off-peak price from the MISO regional day ahead energy market. The day ahead locational marginal price –DA LMP ("DA LMP") represents the price received by a specific generator for the hourly megawatts of energy the generator supplies to the grid. The lower energy prices seen in 2009 and 2010 are due to the economic downturn. During this time, most utilities throughout the country experienced reduced demand which decreased the need for electricity and consequently lowered average energy prices. The reduction in demand was most evident in industrial loads. Minnesota Power was greatly impacted by the industrial load reduction because of the Company's unique average industrial system load factor of approximately 80 percent, one of the highest load factors in the Nation.

Minnesota Power has three renewable energy projects that were implemented in the 2007 to 2010 Past Period timeframe as part of its renewable plan. These three projects consist of purchased wind energy from the Oliver I and II Wind Energy Centers[5] ("Oliver I and Oliver II") and the Taconite Ridge Wind Energy Center ("Taconite Ridge") operated by Minnesota Power.[6]

---

[5] Minnesota Power entered into power purchase agreements with NextEra Energy Resources for Oliver I and Oliver II.

[6] Projects not included: The Wing River wind project is 2.5MW and currently a Community-Based Energy Development project that was not included in this overview due to the low number of mega watt hours it provides to Minnesota Power's system.

The Power Purchase Agreements ("PPA") for Oliver I and Oliver II began in January 2007 and November 2007, respectively and each PPA will expire in 2031 and 2032, respectively. Under the PPAs, Minnesota Power is entitled to all of the energy produced by Oliver I and Oliver II. Each wind farm has a nameplate capacity of 50MW. The average annual capacity factor for Oliver I and Oliver II is approximately 40 percent. Minnesota Power continued implementation of its renewable plan in 2007 with Taconite Ridge; the first Minnesota Power built and owned commercial wind energy facility. Taconite Ridge began commercial operation in June 2008. The nameplate capacity for Taconite Ridge is 25MW and it has an average annual capacity factor of approximately 30 percent.

Figure 1 illustrates the average aggregated revenue requirements of the three aforementioned projects against the MISO DA LMP prices for 2007-2010. Figure 1 shows the projects performed very well in 2007 and 2008 compared to DA LMP. The revenue requirements increase throughout 2009 and drop in 2010. This fluctuation is due to the fact that revenue requirements are highest in the years immediately following completion of a project (such as Taconite Ridge) and decrease over time due to depreciation of the facilities. Figure 1 also illustrates the effect of the recent economic downturn on energy pricing.

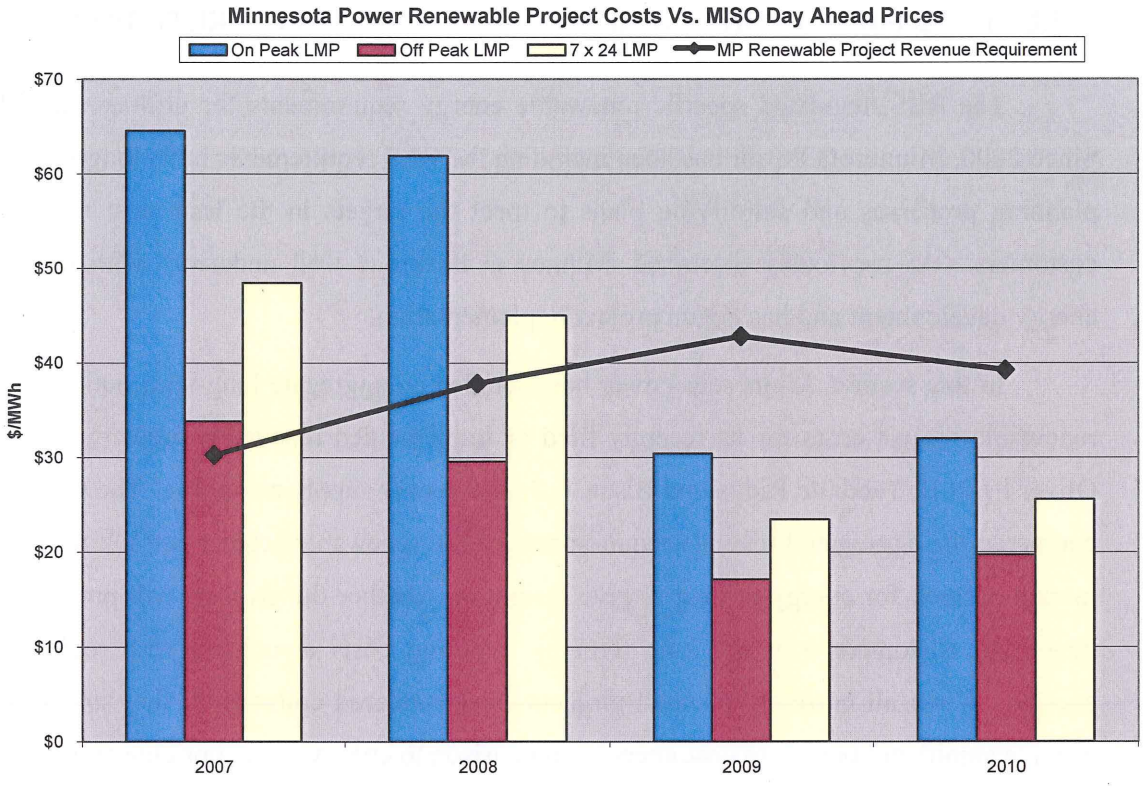


Figure 1--Minnesota Power Renewable Project Costs vs. MISO Day Ahead Prices

In summary, Minnesota Power's renewable resources implemented as part of its renewable plan in 2007 and 2008 have performed well over the past three-year period. Minnesota Power's project costs are currently higher than present market prices; however power prices are still significantly lower due to the slow recovery from the 2008-2009 recession. These renewable projects are fully operational and even at pre-recession values will provide substantial benefit for Minnesota Power's customers. The next section of this Report will indentify how and why these projects are expected to perform well over the long term.

III. RATE IMPACT FOR FUTURE RES COMPLIANCE – FUTURE PERIOD 2011-2026

The RES mandated specific renewable energy requirements for utilities through 2025. Since 2006, Minnesota Power has been including the RES requirements in its long-term resource planning processes and solidifying plans to meet the targets in the least cost manner for its customers. As previously discussed, Minnesota Power is well underway with its renewable energy development and has begun project implementation.

In this section, Minnesota Power has included an aggregate long-term outlook of current renewable project costs for its recently filed or implemented renewable projects, including the Oliver I and II, Taconite Ridge and Bison 1, 2, & 3 power supply resources. The Company then compared the aggregated revenue requirements of the renewable project outlook to the regional market outlook for energy pricing to give insight on whether the projects will provide financial benefit to customers over the long term by avoiding costs associated with regional market energy. When all currently planned projects are considered collectively they are projected to provide significant benefit to customers in comparison to energy market pricing and are also very competitive energy supply sources over the 2011 - 2026 time period.

1) Estimation of Long-Term Renewable Project Costs

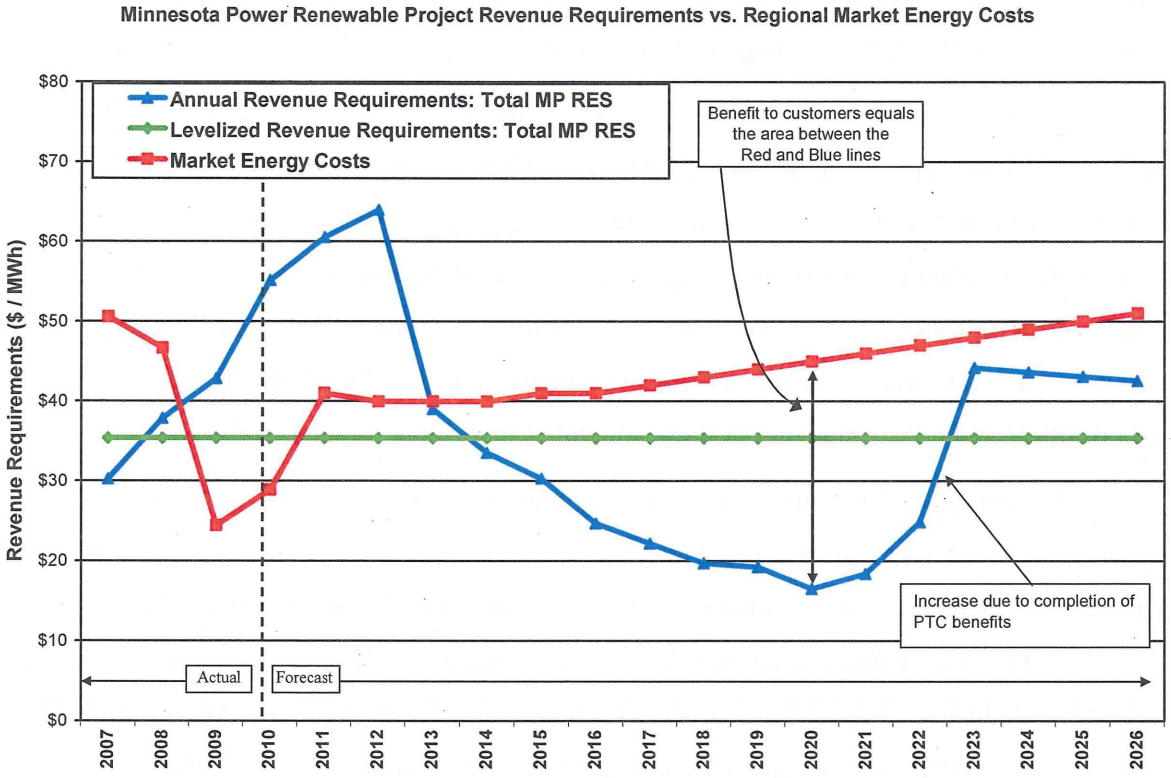
The estimation of costs associated with Minnesota Power's renewable plan is provided in Figure 2 on page 10. The aggregate project costs are shown both for the Past Period and for a 15-year forward looking period from 2011 to 2026, consistent with Minnesota Power's long-term planning process. As mentioned above, the projects included in this long-term overview are those that Minnesota Power has either implemented since 2007 or for which the Company has solidified plans (including Bison 1, 2 and 3). Other future projects being considered for inclusion in Minnesota Power's renewable plan are not built into this analysis as they are still in the process of being developed.

The aggregate renewable project costs are shown in Figure 2 as annual and levelized revenue requirements, and they include a return on average rate base investment for each utility built project, operation and maintenance expenses, depreciation expenses, property tax expenses, as well as federal production tax credits. The annual contract expenses for the power purchase agreements associated with Oliver I and II are also included. All values are represented as

dollars per megawatt hour, by taking the costs of the renewable projects and dividing them over the projected energy output of the generating resources.

To show a relevant resource comparison for the 15-year time period, the outlook for the regional wholesale energy market is also included. Similar to the methodology used in the "Past Period" comparison provided earlier in this document, this outlook helps identify how the current projects are expected to perform when compared to a real-time energy resource alternative over a longer period of time. Figure 2 also shows the avoided cost (the difference between the annual market energy cost and the project revenue requirements), or avoided energy market purchases that customers benefit from after 2013, due to adding renewable projects to the power supply.

The total annual revenue requirements shown in Figure 2 increase in the initial years as capital investment takes place. From the end of 2012 until approximately 2020, the revenue requirements decline sharply reflecting not only the benefits from the applicable federal production tax credits that are applicable, but also the accelerated tax depreciation. With the projected conclusion of the federal production tax credits for the various projects by 2022, the revenue requirements increase again and then begin a gradual decline due to depreciation over the remaining life the projects.



Note: Actual replacements energy costs are annual MISO DA prices @ MP.MP. Forecast market energy costs are from the EIA Annual Energy Outlook 2011.

Figure 2 - Minnesota Power Renewable Project Cost Outlook

When all renewable revenue requirements are summed and then annuitized, a levelized value can be calculated and used as a comparison to other resource alternatives. The levelized revenue requirements of Minnesota Power's renewable projects are projected to be approximately $35/MWh, which is very competitive with the longer term regional wholesale energy market outlook shown in the diagram.

As Figure 2 demonstrates, Minnesota Power's renewable project costs result in a competitive power supply for customers. The estimated project costs can also be used to approximate the cost impact these projects will have over the long-term period. To perform this calculation, the project costs are divided over Minnesota Power's estimated annual customer sales for the period of 2011-2026. Figure 3 indicates that the cost of Minnesota Power's current renewable projects identified in this Report is estimated to have an average of a $3/MWh impact

for customers from 2011 – 2026. These costs, as detailed in Section III, are not expected to increase any more than other alternative power supply resources.

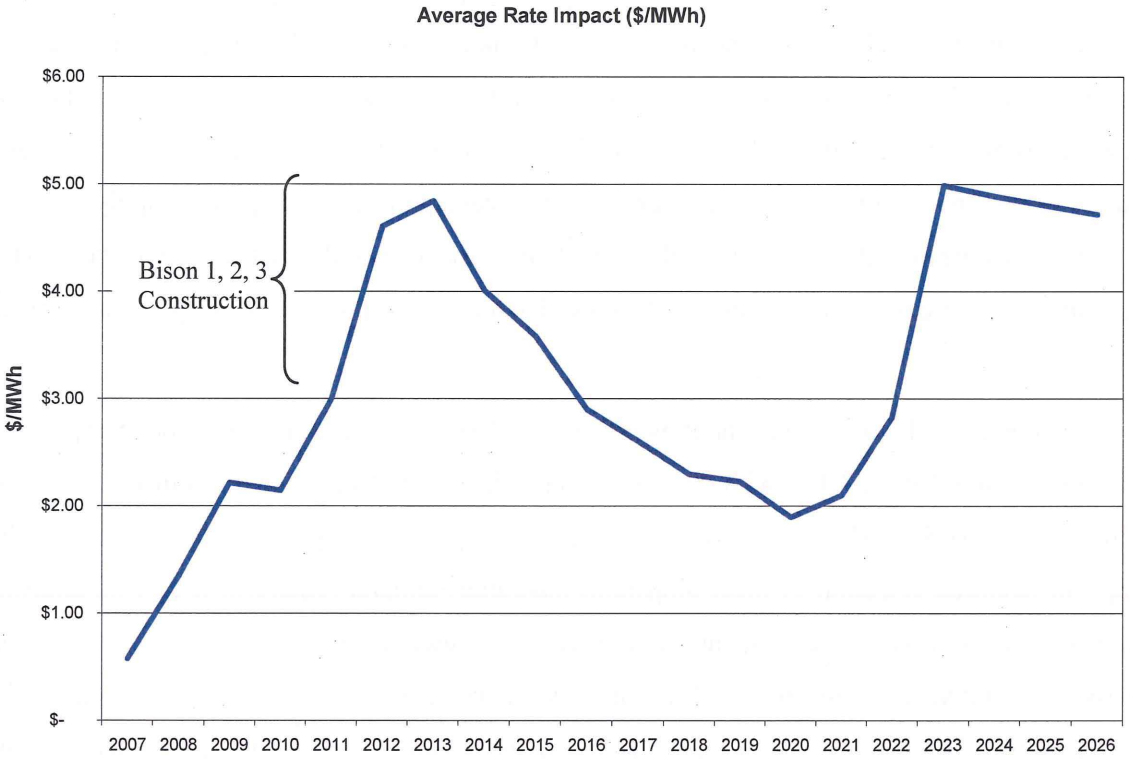


Figure 3 - Average Impact to Minnesota Power Customer

Figures 2 and 3 provide the best available representation of the highest-level cost impacts these projects will have on Minnesota Power's customers. Initial investments in each project result in highest cost impacts to the overall power supply occurring in the early years, followed by a long period of benefits created by production tax credits and the tax and depreciation components of the projects. As a whole, these renewable projects result in a reasonable $35/MWh power supply option that is competitive with regional market outlooks and one that remains competitive with alternative power supply resource options.

IV. POWER SUPPLY EXPANSION COSTS WITH AND WITHOUT THE RES

During Minnesota Power's long-term power supply planning process, each potential renewable project is included as a power supply alternative (along with other fuel types) as the Company identifies its resource plan to meet utility customer demand requirements. A renewable project is considered for inclusion in the resource plan when it meets energy and capacity requirements for customers and creates an advantage over other power supply options. As part of Minnesota Power's 2010 Plan the Company analyzed whether the current RES requirements were causing the Company to consider renewable projects over more economical options.

In the 2010 Plan, Minnesota Power compared the long-term power supply expansion plans, which included the RES, with expansion plans that did not include the requirements. The addition of the RES to Minnesota Power's expansion planning analysis resulted in no material change in resource selection to meet long-term customer demand requirements. This analysis confirmed the assumption that Minnesota Power's renewable expansion plans produce no negative cost impacts to customers. The Company's current power supply expansion plan is the most economical plan for its customers and also meets the requirements of the RES. The following information supports this finding and is extracted from the analysis conducted in Minnesota Power's 2010 Plan – Appendix J.

Minnesota Power utilized a scenario based analysis structure in its last resource plan submittal that included a reference case along with four macro scenarios. Minnesota Power addressed the uncertainty surrounding the economic and environmental outlooks by considering additional sensitivities to ascertain the best course of action within the resource planning period. The reference case and four scenarios capture plausible futures for the planning horizon from 2011 to 2026. The scenarios are not intended to predict a particular future occurring but, rather, are analyzed to produce more accurate planning options. Minnesota Power chose, based on its current strategy and industry and public policy trends, to use economic growth and environmental controls as the two primary variables to define the scenarios. Each of the four scenarios was tied to an established forecast of key planning inputs and provides a range of modeling assumptions. The entire set of assumptions utilized for each scenario can be accessed

in the 2010 Plan filing; however, Figure 4 provides a high level summary to give insight into the robustness of the scenarios utilized.

Scenario Name	Green Focus	Green Growth	Slow Business	Back to Business	Reference Case
Economic Growth	Low	Moderate	Moderate	High	Moderate
Environmental Control	High	High	Very Low	Moderate	Moderate

Figure 4 - Minnesota Power 2010 Integrated Resource Plan Summary of Planning Scenario Assumptions

A separate long-term power supply expansion plan was developed for each of the five scenarios to meet Minnesota Power's expected customer requirements. The production cost software Strategist Proview was utilized to conduct the necessary modeling and calculations. Each of the five models identified a separate least cost resource expansion plan to meet Minnesota Power's expected demand and energy requirements for the 2011-2026 time period. Numerous alternative power supply resources were identified for Strategist Proview to select from during the study period including renewable (wind and biomass), natural gas, demand side management (expanded conservation) and available bilateral contract options.[7] The wind resource options considered included the estimated cost of necessary transmission additions and power system integration costs.[8] As stated previously in the Report, Minnesota Power is in a unique position because the projected transmission addition costs for its overall renewable plan are much lower than industry peers. This is mainly due to the strategic acquisition of its DC Line.

Each of the five scenarios were run in the Strategist Proview expansion planning software with and without the RES requirements included in order to quantify any changes in resource selection or potential cost additions. The least cost long-term resource expansion plan for each scenario (Figures 5 and 6) illustrates that in the Reference Case, Green Focus, Green Growth and Back to Business scenarios the power supply resources selected are the same with and without

[7] Section D of Minnesota Power's 2010 Resource Plan filing contains the full description of the power supply resource alternatives made available during the analysis.

[8] Minnesota Power included approximately $6/MWh to identify costs of transmission additions needed for North Dakota wind projects and $5/MWh for regional system integration costs. See Appendix I of the Company's 2010 Resource Plan submittal for more detail on these costs.

the RES. The Slow Business case is the only scenario where renewable resource options are not chosen without the RES requirements. This is likely due to the fact that the Slow Business scenario is the only scenario with zero environmental costs modeled during the planning period.[9]

Expansion Plans without Renewable Mandate

Expansion Plan: Without Renewable Mandate

Green Focus 2024 Requirements: Additional Capacity: None Total Energy: 10,805,000 MWh	**Green Growth** 2024 Requirements: Additional Capacity: 286MW Total Energy: 12,805,000 MWh
Short Term (2010-2014) - 13MW Expanded Conservation - Manitoba Short Term Energy - 300MW Wind - Market Energy	***Short Term (2010-2014)*** - 13MW Expanded Conservation - Manitoba Short Term Energy - 400MW Wind - Market Energy
Long Term (2015-2024) - 200MW Wind - 250MW Manitoba Long Term Capacity and Energy - Market Energy	***Long Term (2015-2024)*** - 100MW Wind - 250MW Manitoba Long Term Capacity and Energy - Market Capacity and Energy
Slow Business 2024 Requirements: Additional Capacity: 286MW Total Energy: 12,805,000 MWh	**Back to Business** 2024 Requirements: Additional Capacity: 543MW Total Energy: 15,724,000 MWh
Short Term (2010-2014) - 13MW Expanded Conservation - Market Energy	***Short Term (2010-2014)*** - 13MW Expanded Conservation - Manitoba Short Term Energy - 100MW Wind - Market Capacity and Energy
Long Term (2015-2024) - 250MW Manitoba Long Term Capacity and Energy - Market Capacity and Energy	***Long Term (2015-2024)*** - 400 MW Wind - 250MW Manitoba Long Term Capacity and Energy - 150MW Gas - CC - Market Capacity and Energy
Reference Case: All Base Case Assumptions 2024 Requirements: Additional Capacity: 286MW Total Energy: 12,805,000 MWh	
Short Term (2010-2014) - 13MW Expanded Conservation - Manitoba Short Term Energy - Market Energy	
Long Term (2015-2024) - 300 to 500MW Wind - 250MW Manitoba Long Term Capacity and Energy - Market Capacity and Energy	

Figure 5 - Long-term Expansion Plans without RES Requirement

[9] The differences in the estimated customer power supply costs are highlighted in yellow at the bottom of each scenario of Figure 6.

Expansion Plans with Renewable Mandate

Expansion Plan: With Renewable Mandate

Green Focus 2024 Requirements: Additional Capacity: None Total Energy: 10,805,000 MWh	**Green Growth** 2024 Requirements: Additional Capacity: 286MW Total Energy: 12,805,000 MWh
Short Term (2010-2014) - 13MW Expanded Conservation - Manitoba Short Term Energy - 300MW Wind - Market Energy	***Short Term (2010-2014)*** - 13MW Expanded Conservation - Manitoba Short Term Energy - 400MW Wind - Market Energy
Long Term (2015-2024) - 200MW Wind - 250MW Manitoba Long Term Capacity and Energy - Market Energy	***Long Term (2015-2024)*** - 100MW Wind - 250MW Manitoba Long Term Capacity and Energy - Market Capacity and Energy
Cost Difference from No RES Preferred Plan: 0.0%	Cost Difference from No RES Preferred Plan: 0.0%
Slow Business 2024 Requirements: Additional Capacity: 286MW Total Energy: 12,805,000 MWh	**Back to Business** 2024 Requirements: Additional Capacity: 543MW Total Energy: 15,724,000 MWh
Short Term (2010-2014) - 13MW Expanded Conservation - Market Energy	***Short Term (2010-2014)*** - 13MW Expanded Conservation - Manitoba Short Term Energy - 100MW Wind - Market Capacity and Energy
Long Term (2015-2024) - 300MW Wind - 250MW Manitoba Long Term Capacity and Energy - Market Capacity and Energy	***Long Term (2015-2024)*** - 400 MW Wind - 250MW Manitoba Long Term Capacity and Energy - 150MW Gas - CC - Market Capacity and Energy
Cost Difference from No RES Preferred Plan: +2.6%	Cost Difference from No RES Preferred Plan: +0.001%

Reference Case: All Base Case Assumptions 2024 Requirements: Additional Capacity: 286MW Total Energy: 12,805,000 MWh
Short Term (2010-2014) - 13MW Expanded Conservation - Manitoba Short Term Energy - Market Energy
Long Term (2015-2024) - 300MW to 500MW Wind - 250MW Manitoba Long Term Capacity and Energy - Market Capacity and Energy
Cost Difference from No RES Preferred Plan: 0.0%

Figure 6 - Long-term Expansion Plans with RES Requirement

Figure 7 demonstrates the power supply cost outlook with and without the RES requirement on an annual basis for the Reference Case scenario. In the Reference Case the addition of the RES requirements to Minnesota Power's expansion planning analysis resulted in no change in costs to customers. Minnesota Power's least cost power supply expansion plan

would be the same with or without the RES requirements. The graphic also demonstrates that, in general, power supply costs are expected to continue to increase (at various levels depending on a multitude of variables affecting the power industry). However, the implementation of the RES coupled with Minnesota Power's renewable strategy is not expected to create any additional cost increase.

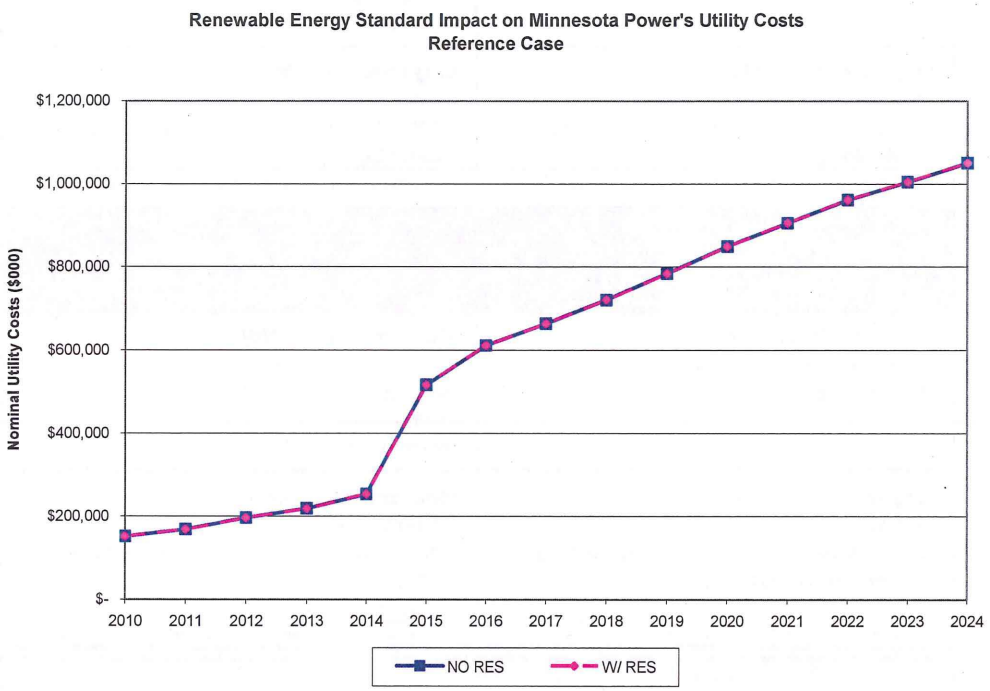


Figure 7 - Impact of RES on Minnesota Power's Utility Costs Reference Case

V. CONCLUSION

Minnesota Power firmly believes that renewable expansion plans prompted by the 2007 Act have had a positive impact on its retail energy supply portfolio. As this Report demonstrates, the portfolio has been performing well to date. In addition, in future years these investments will continue to benefit customers. The Company's proactive stance in its 2010 Plan and further evaluation throughout the process of writing this Report will serve to strengthen the analysis provided in future Integrated Resource Plans. Minnesota Power is committed to continuing its thorough examination of the Company's renewable portfolio via individual project approvals and its 2013 Integrated Resource Plan.

STATE OF MINNESOTA)
) ss
COUNTY OF ST. LOUIS)

AFFIDAVIT OF SERVICE VIA ELECTRONIC FILING

Kristie Lindstrom of the City of Duluth, County of St. Louis, State of Minnesota, says that on the 25th day of October, 2011, she served Minnesota Power's Compliance Report in Docket No. E-999/CI-11-852 to the Minnesota Public Utilities Commission and the Energy Resources Division of the Minnesota Department of Commerce of via electronic filing. Senator Rosen and Representatives Hackbarth and McNamara were served via First Class Mail. The remaining parties on the attached service list were served as so indicated on the list.

/s/ Kristie Lindstrom

Subscribed and sworn to before
me this 25th day of October, 2011.

/s/ Jodi Nash

Notary Public - Minnesota
My Commission Expires Jan. 31, 2015

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
David	Aafedt	daafedt@winthrop.com	Winthrop & Weinstine, P.A.	Suite 3500, 225 South Sixth Street Minneapolis, MN 554024629	Paper Service	No	SPL_SL_11-852_Interested Parties
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Christopher	Anderson	canderson@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022191	Electronic Service	No	SPL_SL_11-852_Interested Parties
William A.	Blazar	bblazar@mnchamber.com	Minnesota Chamber Of Commerce	Suite 1500 400 Robert Street North St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
Michael	Bradley	bradleym@moss-barnett.com	Moss & Barnett	4800 Wells Fargo Ctr 90 S 7th St Minneapolis, MN 55402-4129	Electronic Service	No	SPL_SL_11-852_Interested Parties
Jon	Brekke	jbrekke@grenergy.com	Great River Energy	12300 Elm Creek Boulevard Maple Grove, MN 553694718	Paper Service	No	SPL_SL_11-852_Interested Parties
Mark B.	Bring	mbring@ottertail.com	Otter Tail Corporation	215 South Cascade Street PO Box 496 Fergus Falls, MN 565380496	Paper Service	No	SPL_SL_11-852_Interested Parties
B. Andrew	Brown	brown.andrew@dorsey.com	Dorsey & Whitney LLP	Suite 1500 50 South Sixth Street Minneapolis, MN 554021498	Paper Service	No	SPL_SL_11-852_Interested Parties
Christina	Brusven	cbrusven@fredlaw.com	Fredrikson & Byron, P.A.	200 S 6th St Ste 4000 Minneapolis, MN 554021425	Electronic Service	No	SPL_SL_11-852_Interested Parties
Tammie	Carino	tcarino@GREnergy.com	Great River Energy	12300 Elm Creek Blvd. Maple Grove, MN 55369-4718	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Douglas M.	Carnival		McGrann Shea Anderson Carnival	Straugn & Lamb 800 Nicollet Mall, Suite 2600 Minneapolis, MN 554027035	Paper Service	No	SPL_SL_11-852_Interested Parties
Christopher	Clark	christopher.b.clark@xcelenergy.com	Xcel Energy	5th Floor 414 Nicollet Mall Minneapolis, MN 554011993	Paper Service	No	SPL_SL_11-852_Interested Parties
Kenneth A.	Colburn	kcolburn@symbioticstrategies.com	Symbiotic Strategies, LLC	26 Winton Road Meredith, NH 32535413	Paper Service	No	SPL_SL_11-852_Interested Parties
George	Crocker	gwillc@nawo.org	North American Water Office	PO Box 174 Lake Elmo, MN 55042	Paper Service	No	SPL_SL_11-852_Interested Parties
Mark F.	Dahlberg	markdahlberg@nweco.com	Northwestern Wisconsin Electric Company	P.O. Box 9 104 South Pine Street Grantsburg, WI 548400009	Paper Service	No	SPL_SL_11-852_Interested Parties
Jeffrey A.	Daugherty	jeffrey-daugherty@centerpointenergy.com	CenterPoint Energy	800 LaSalle Ave Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Curt	Dieren	cdieren@dgrnet.com	L&O Power Cooperative	1302 South Union Street PO Box 511 Rock Rapids, IA 51246	Paper Service	No	SPL_SL_11-852_Interested Parties
Mike	Eggl	smeier@bepc.com	Basin Electric Power Cooperative	1717 East Intertate Avenue Bismarck, ND 58503	Paper Service	No	SPL_SL_11-852_Interested Parties
Kristen	Eide Tollefson	ket@wro-ns.net	R-CURE	P O Box 129 Frontenac, MN 55026	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Bob	Eleff		Regulated Industries Cmte	100 Rev Dr Martin Luther King Jr Blvd Room 600 St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Pam	Fergen		Henepin County Government Center CAO	A2000 300 S. Sixth Street Minneapolis, MN 55487	Paper Service	No	SPL_SL_11-852_Interested Parties
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	SPL_SL_11-852_Interested Parties
Henry	Fischer	terry.grabau@ecemn.com	East Central Energy	412 North Main Braham, MN 550060039	Paper Service	No	SPL_SL_11-852_Interested Parties
Lori	Frisk Thompson	lorift@utplus.com	Central Minnesota Municipal Power Agency	459 S Grove St Blue Earth, MN 56013	Electronic Service	No	SPL_SL_11-852_Interested Parties
John	Fuller		MN Senate	75 Rev Dr Martin Luther King Jr Blvd Room G-17 St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Edward	Garvey	garveyed@aol.com		32 Lawton Street St. Paul, MN 55102	Paper Service	No	SPL_SL_11-852_Interested Parties
Darrell	Gerber		Clean Water Action Alliance of Minnesota	308 Hennepin Ave. E. Minneapolis, MN 55414	Paper Service	No	SPL_SL_11-852_Interested Parties
Ronald	Giteck	ron.giteck@ag.state.mn.us	Office of the Attorney General-RUD	Antitrust and Utilities Division 445 Minnesota Street, 1400 BRM Tower St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Elizabeth	Goodpaster	bgoodpaster@mncenter.org	MN Center for Environmental Advocacy	Suite 206 26 East Exchange Street St. Paul, MN 551011667	Paper Service	No	SPL_SL_11-852_Interested Parties
Bryan	Gower	N/A	APX, Inc.	224 Airport Parkway Suite 600 San Jose, CA 95110	Paper Service	No	SPL_SL_11-852_Interested Parties
Michael R.	Gravelle	michael.gravelle@avantenergy.com	Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Todd J.	Guerrero	tguerrero@fredlaw.com	Fredrikson & Byron, P.A.	Suite 4000 200 South Sixth Street Minneapolis, MN 554021425	Electronic Service	No	SPL_SL_11-852_Interested Parties
Burl W.	Haar	burl.haar@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Ronald	Harper	rharper@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 585030564	Paper Service	No	SPL_SL_11-852_Interested Parties
Bill	Heaney	billheaney@billheaney.com	IBEW Minnesota State Council	P. O. Box 65397 St. Paul, MN 551550397	Paper Service	No	SPL_SL_11-852_Interested Parties
John	Helmers	helmers.john@co.olmsted.mn.us	Olmsted County Waste to Energy	2122 Campus Drive SE Rochester, MN 55904-4744	Electronic Service	No	SPL_SL_11-852_Interested Parties
Annete	Henkel	mui@mnutilityinvestors.org	Minnesota Utility Investors	413 Wacouta Street #230 St.Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
Ashley	Houston			120 Fairway Rd Chestnut Hill, MA 24671850	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Lori	Hoyum	lhoyum@mnpower.com	Minnesota Power	30 West Superior Street Duluth, MN 55802	Electronic Service	No	SPL_SL_11-852_Interested Parties
Casey	Jacobson	cjacobson@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 58501	Paper Service	No	SPL_SL_11-852_Interested Parties
Amanda A	James	AmandaJames@alliantenergy.com	Interstate Power & Light Company - Gas	200 First St SE PO Box 351 Cedar Rapids, IA 52401-0351	Paper Service	No	SPL_SL_11-852_Interested Parties
Larry	Johnston	lw.johnston@smmpa.org	SMMPA	500 1st Ave SW Rochester, MN 55902-3303	Paper Service	No	SPL_SL_11-852_Interested Parties
Nancy	Kelly	nkelly@greeninstitute.org	The Green Institute	#110 2801 21st Avenue Minneapolis, MN 55407	Electronic Service	No	SPL_SL_11-852_Interested Parties
Julie	Ketchum		Waste Management	1901 Ames Drive Burnsville, MN 55306	Paper Service	No	SPL_SL_11-852_Interested Parties
Hank	Koegel	N/A	enXco	10 Second St., NE, Ste 107 Minneapolis, MN 55413	Paper Service	No	SPL_SL_11-852_Interested Parties
Nancy	Lange	nlange@iwla.org	Izaak Walton League of America	Suite 202 1619 Dayton Avenue St. Paul, MN 55104	Paper Service	No	SPL_SL_11-852_Interested Parties
Douglas	Larson	dlarson@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	SPL_SL_11-852_Interested Parties
Robert S	Lee	RSL@MCMLAW.COM	Mackall Crounse & Moore Law Offices	1400 AT&T Tower 901 Marquette Ave Minneapolis, MN 554022859	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Deborah Fohr	Levchak	dlevchak@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 585030564	Paper Service	No	SPL_SL_11-852_Interested Parties
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	900 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Mark	Lindquist		The Minnesota Project	1026 North Washington Street New Ulm, MN 56073	Paper Service	No	SPL_SL_11-852_Interested Parties
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E St. Paul, MN 55106	Paper Service	No	SPL_SL_11-852_Interested Parties
Mike	McDowell		Heartland Consumers Power District	PO Box 248 Madison, SD 570420248	Paper Service	No	SPL_SL_11-852_Interested Parties
Dave	McNary		Hennepin County DES	417 N. Fifth Street Minneapolis, MN 55401	Paper Service	No	SPL_SL_11-852_Interested Parties
John	McWilliams	jmm@dairynet.com	Dairyland Power Cooperative	3200 East Ave SPO Box 817 La Crosse, WI 54601-7227	Electronic Service	No	SPL_SL_11-852_Interested Parties
Valerie	Means	meansv@moss-barnett.com	Moss-Barnett	4800 Wells Fargo Center 90 South Seventh Street Minneapolis, MN 55402	Electronic Service	No	SPL_SL_11-852_Interested Parties
Brian	Meloy	brian.meloy@leonard.com	Leonard, Street & Deinard	150 S 5th St Ste 2300 Minneapolis, MN 55402	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Peder	Mewis	Peder.Mewis@senate.mn	Senate Energy, Util and Telecom Committee	Room 322, State Capitol 75 Rev. Dr. Martin Luther King Jr. Blvd. St. Paul, MN 55155-1606	Paper Service	No	SPL_SL_11-852_Interested Parties
Carl	Michaud	carl.michaud@co.hennepin.mn.us	Hennepin County DES	417 N. Fifth Street #200 Minneapolis, MN 554013206	Paper Service	No	SPL_SL_11-852_Interested Parties
Stacy	Miller	stacy.miller@state.mn.us	Office of Energy Security	State Energy Office 85 7th Place East, Suite 500 St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
David	Moeller	dmoeller@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022093	Electronic Service	No	SPL_SL_11-852_Interested Parties
Andrew	Moratzka	apm@mcmlaw.com	Mackall, Crounse and Moore	1400 AT&T Tower 901 Marquette Ave Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Bryan	Morlock	bmorlock@otpco.com	Otter Tail Power Company	215 South Cascade Street Box 496 Fergus Falls, MN 565380496	Electronic Service	No	SPL_SL_11-852_Interested Parties
Carl	Nelson	cnelson@mncee.org	Center for Energy and Environment	212 3rd Ave N Ste 560 Minneapolis, MN 55401	Electronic Service	No	SPL_SL_11-852_Interested Parties
David W.	Niles		Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Thomas L.	Osteraas	tomosteraas@excelsiorenergy.com	Excelsior Energy	225 S 6th St Ste 1730 Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Greg	Oxley	N/A	MMUA	3025 Harbor Ln N Ste 400 Plymouth, MN 55447-5142	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Joshua	Pearson	N/A	enXco, Inc.	15445 Innovation Drive San Diego, CA 92128	Paper Service	No	SPL_SL_11-852_Interested Parties
Mary Beth	Peranteau	mperanteau@wheelerlaw.com	Wheeler Van Sickle & Anderson SC	Suite 801 25 West Main Street Madison, WI 537033398	Paper Service	No	SPL_SL_11-852_Interested Parties
Randall	Porter		Avant Energy Services	Suite 300 200 South Sixth Stree Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Kent	Ragsdale	kentragsdale@alliantenergy.com	Alliant Energy-Interstate Power and Light Company	P.O. Box 351 200 First Street, SE Cedar Rapids, IA 524060351	Paper Service	No	SPL_SL_11-852_Interested Parties
John C.	Reinhardt		Laura A. Reinhardt	3552 26Th Avenue South Minneapolis, MN 55406	Paper Service	No	SPL_SL_11-852_Interested Parties
Kevin	Reuther		MN Center for Environmental Advocacy	Suite 206 26 East Exchange Street St. Paul, MN 551011667	Paper Service	No	SPL_SL_11-852_Interested Parties
Trudy	Richter	trichter@rranow.com	Minnesota Resource Recovery Assn.	477 Selby Avenue St. Paul, MN 55102	Paper Service	No	SPL_SL_11-852_Interested Parties
Amy	Rudolph	Amy.Rudolph@house.mn	House Env, Energy & Natural Res Committee	Rom 363, State Office Bldg. 100 Rev. Dr. Martin Luther King Jr. Blvd. St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Robert K.	Sahr	bsahr@eastriver.coop	East River Electric Power Cooperative	P.O. Box 227 Madison, SD 57042	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Raymond	Sand	rms@dairynet.com	Dairyland Power Cooperative	P.O. Box 8173200 East Avenue South LaCrosse, WI 546020817	Electronic Service	No	SPL_SL_11-852_Interested Parties
Richard	Savelkoul	rsavelkoul@felhaber.com	Felhaber, Larson, Fenlon & Vogt, P.A.	444 Cedar St Ste 2100 St. Paul, MN 55101-2136	Paper Service	No	SPL_SL_11-852_Interested Parties
Matthew J.	Schuerger P.E.		Energy Systems Consulting Services, LLC	P.O. Box 16129 St. Paul, MN 55116	Paper Service	No	SPL_SL_11-852_Interested Parties
Robert H.	Schulte	rhs@schulteassociates.com	Schulte Associates LLC	15347 Boulder Pointe Road Eden Prairie, MN 55347	Paper Service	No	SPL_SL_11-852_Interested Parties
Dean	Sedgwick		Itasca Power Company	PO Box 457 Spring Lake, MN 566800457	Paper Service	No	SPL_SL_11-852_Interested Parties
Mrg	Simon	mrgsimon@mrenergy.com	Missouri River Energy Services	3724 W. Avera Drive P.O. Box 88920 Sioux Falls, SD 571098920	Electronic Service	No	SPL_SL_11-852_Interested Parties
Beth H.	Soholt	bsoholt@windonthewires.org	Wind on the Wires	Suite 203 1619 Dayton Avenue St. Paul, MN 551046206	Paper Service	No	SPL_SL_11-852_Interested Parties
Dale	Sollom	dsollom@minnkota.com	Minnkota Power Cooperative, Inc.	PO Box 13200 Grand Forks, ND 58208-3200	Electronic Service	No	SPL_SL_11-852_Interested Parties
David	Strom	davids@mnfmi.org	Minnesota Free Market Institute	P.O. Box 120449 St. Paul, MN 55112	Paper Service	No	SPL_SL_11-852_Interested Parties
James M.	Strommen	jstrommen@kennedy-graven.com	Kennedy & Graven, Chartered	470 U.S. Bank Plaza 200 South Sixth Stree Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	SPL_SL_11-852_Interested Parties
Linda	Taylor	taylor@fresh-energy.org	Fresh Energy	408 St Peter St Suite 220 St. Paul, MN 55102-1125	Electronic Service	No	SPL_SL_11-852_Interested Parties
Steve	Thompson		Central Minnesota Municipal Power Agency	459 S Grove St Blue Earth, MN 56013-2629	Paper Service	No	SPL_SL_11-852_Interested Parties
SaGonna	Thompson	Regulatory.Records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	SPL_SL_11-852_Interested Parties
Douglas	Tiffany	tiffa002@umn.edu	University of Minnesota	316d Ruttan Hall 1994 Buford Avenue St. Paul, MN 55108	Paper Service	No	SPL_SL_11-852_Interested Parties
Pat	Treseler	pat.jcplaw@comcast.net	Paulson Law Office LTD	Suite 325 7301 Ohms Lane Edina, MN 55439	Electronic Service	No	SPL_SL_11-852_Interested Parties
Darryl	Tveitbakk		Northern Municipal Power Agency	123 Second Street West Thief River Falls, MN 56701	Paper Service	No	SPL_SL_11-852_Interested Parties
Roger	Warehime	warehimer@owatonnautilities.com	Owatonna Public Utilities	208 South WalnutPO Box 800 Owatonna, MN 55060	Paper Service	No	SPL_SL_11-852_Interested Parties
Paul	White	paul@projectresources.net	Project Resources Corp.	618 Second Avenue SE Minneapolis, MN 55414	Paper Service	No	SPL_SL_11-852_Interested Parties
Robyn	Woeste	robynwoeste@alliantenergy.com	Interstate Power and Light Company	P.O. Box 351 200 First St SE Cedar Rapids, IA 524060351	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Thomas J.	Zaremba		WHEELER, VAN SICKLE & ANDERSON	Suite 801 25 West Main Street Madison, WI 537033398	Paper Service	No	SPL_SL_11-852_Interested Parties

Minnkota Power
MPC COOPERATIVE, INC.
Your Touchstone Energy® Partner

1822 Mill Road • P.O. Box 13200 • Grand Forks, ND 58208-3200 • Phone (701) 795-4000

October 25, 2011

VIA E-Filing and U.S. Mail

Dr. Burl Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

RE: In the Matter of the Utility Renewable Energy Rate Impact Report Required by Minnesota Statutes Section 216B.1691, Subd. 2(e)
Docket Number E-999/CI-11-852

Dear Dr. Haar:

Please find enclosed the Minnkota Power Cooperative, Inc., and Northern Municipal Power Agency, together the Joint System, Renewable Energy Rate Impact Report. A copy of this report has also been filed electronically with the Public Utilities Commission docket system.

Please feel free to contact me at (701) 795-4315 with any questions.

Sincerely,

Dale Sollom

Dale Sollom
Planning Manager
Minnkota Power Cooperative, Inc.

State of Minnesota
Before the Public Utilities Commission

Ellen Anderson	Chair
Dr. David C. Boyd	Commissioner
Phyllis Reha	Commissioner
J. Dennis O'Brien	Commissioner
Betsy Wergin	Commissioner

In the matter of the Joint System's Utility Renewable Energy Cost Impact Report Required by Minnesota Statutes Section 216B.1691, Subd. 2(e)	Docket Number E-999/CI-11-852 October 25, 2011

MINNKOTA POWER COOPERATIVE, INC. and the NORTHERN MUNICIPAL POWER AGENCY (JOINT SYSTEM) Renewable Energy Rate Impact Report

The following Renewable Energy Rate Impact Report (Report) is in response to Minn. Stat. 216B.1691, Subd. 2(e), which requires all Minnesota utilities to file a report detailing the rate impacts of complying with the Minnesota renewable energy standard (MN RES).

Minnkota Power Cooperative, Inc. (Minnkota) and the Northern Municipal Power Agency (NMPA) file this combined Report as the Joint System. NMPA is a municipal corporation and a political subdivision of the State of Minnesota, organized and existing under Sections 453.51 through 453.62 of the Minnesota Statutes, as amended, for the purpose of providing electric energy. The participants of NMPA include ten Minnesota municipalities and two in North Dakota.

Minnkota is a generation and transmission cooperative incorporated on May 24, 1940 under the laws of the State of Minnesota with headquarters in Grand Forks, North Dakota. Minnkota operates on a non-profit basis and is engaged in the business of providing wholesale electric service to its members. Pursuant to a Power Supply Coordination Agreement, dated as of March 1, 1981, NMPA's generation and transmission are operated together with Minnkota's various power supply resources collectively as a combined system (the Joint System) and Minnkota has been appointed as agent for NMPA. As a result, the Joint System submits this Report as a single entity for reporting purposes.

The Joint System provides wholesale power to distribution cooperatives and municipals; it does not provide retail sales of power. Therefore, this Report analyzes the impact of MN RES on wholesale power rates to the distribution cooperatives and municipals served by the Joint System.

This Report will use 2010 as the base year from which to demonstrate the cost impacts of complying with the MN RES to the Joint System. To analyze the cost impacts of the MN RES, this Report will examine three areas of costs. The first cost area examined is the additional costs of the enhancements to Minnkota's transmission system needed to integrate wind generation. The second cost area examined is the cost of purchasing wind energy through power purchase agreement in lieu of satisfying the Joint System's energy requirements through the MISO Energy Market. The third cost area examined is the revenue derived from the sale of green tags.

The first cost area examined the needed transmission enhancements for wind projects. Minnkota purchases wind energy through power purchase agreements with wind generators located near Langdon, ND and Pillsbury, ND. Both the Langdon Wind Project and the Ashtabula (Pillsbury) Wind Project required enhancements to Minnkota's transmission system to integrate the wind generation into the power grid.

The Langdon Wind Project involved building a 35-mile 115 kV transmission line between Langdon, ND and Hensel, ND. The Ashtabula Wind Project required constructing a 61-mile 230 kV transmission line between Pillsbury, ND and Fargo, ND. In addition to the transmission lines, additional costs were incurred in constructing new substations and modifying existing substations.

The additional transmission capital costs in 2010 for the Langdon and Ashtabula Wind Projects totaled $32,738,965. The additional 2010 annual fixed charges (interest and depreciation) related to these capital costs is $1,381,772, which was subtracted from the Joint System's 2010 revenue requirements to account for the cost of complying with the MN RES.

The second cost area examined the differences between contracted power purchases and MISO Energy Market value of wind energy. Minnkota entered into 25-year "take-or-pay" contracts with the owners of the Langdon and Ashtabula Wind Projects to meet the MN RES on a long term basis. To calculate the impact of preparing to comply with the MN RES, the difference in the power purchase contract cost and the MISO Energy Market value of the wind energy is subtracted from the 2010 revenue requirements.

In 2010 the Joint System spent a total of $53,507,924 for all the wind energy it purchased via these power purchase agreements. The MISO Energy Market value of the wind energy is estimated to be $25,243,261 for 2010. The difference between $53,507,924 and $25,243,261

equals $28,264,663, which is subtracted from the Joint System's 2010 revenue requirements to account for the cost of complying with the MN RES.

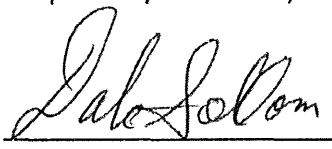
The third cost area examined the revenue received from the sale of green tags associated with the wind energy. Minnkota realized approximately $1,402,156 in 2010 from the sale of green tags. The revenue received from green tag sales is added to the 2010 revenue requirements since the money collected was associated with the delivery of wind energy to the Joint System.

To properly account for the cost of complying with the MN RES, the additional fixed charges associated with the 2010 transmission capital costs and the difference between the purchase power costs and the MISO Energy Market value need to be subtracted from the 2010 revenue requirements. The revenue from the green tag sales needs to be added to the 2010 revenue requirements since that revenue is due to wind production.

The net result of these adjustments is that $28,244,279 needs to be subtracted from the 2010 revenue requirements to account for the cost of complying with the MN RES. This amount represents approximately 13.65% of the Joint System's 2010 revenue requirements.

The Joint System's average wholesale power rate in 2010 was $53.31/MWH. Without the additional costs incurred in preparing to comply with the 2025 MN RES, the Joint System's average wholesale power rate in 2010 would have been $46.03/MWH. The actual 2010 average wholesale power rate, which includes the Joint System's costs for complying long term with the MN RES, is 15.81% more than what the 2010 average wholesale power rate would have been absent MN RES requirements.

Respectfully Submitted,



Dale Sollom
Planning Manager
Minnkota Power Cooperative, Inc.

CERTIFICATE OF SERVICE

I, Dale Sollom, hereby certify that I have this day, served a true and correct copy of the following document to all persons at the addresses indicated below or on the attached list by electronic filing, electronic mail, courier, interoffice mail or by depositing the same enveloped with postage paid in the United States mail at Grand Forks, North Dakota.

Minnesota Public Utilities Commission

RENEWABLE ENERGY RATE IMPACT REPORT of October 25, 2011

Docket Number E-999/CI-11-852

Dated this 25th day of October, 2011

/s/ Dale Sollom

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
David	Aafedt	daafedt@winthrop.com	Winthrop & Weinstine, P.A.	Suite 3500, 225 South Sixth Street Minneapolis, MN 554024629	Paper Service	No	SPL_SL_11-852_Interested Parties
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Christopher	Anderson	canderson@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022191	Electronic Service	No	SPL_SL_11-852_Interested Parties
William A.	Blazar	bblazar@mnchamber.com	Minnesota Chamber Of Commerce	Suite 1500 400 Robert Street North St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
Michael	Bradley	bradleym@moss-barnett.com	Moss & Barnett	4800 Wells Fargo Ctr 90 S 7th St Minneapolis, MN 55402-4129	Electronic Service	No	SPL_SL_11-852_Interested Parties
Jon	Brekke	jbrekke@grenergy.com	Great River Energy	12300 Elm Creek Boulevard Maple Grove, MN 553694718	Paper Service	No	SPL_SL_11-852_Interested Parties
Mark B.	Bring	mbring@ottertail.com	Otter Tail Corporation	215 South Cascade Street PO Box 496 Fergus Falls, MN 565380496	Paper Service	No	SPL_SL_11-852_Interested Parties
B. Andrew	Brown	brown.andrew@dorsey.com	Dorsey & Whitney LLP	Suite 1500 50 South Sixth Street Minneapolis, MN 554021498	Paper Service	No	SPL_SL_11-852_Interested Parties
Christina	Brusven	cbrusven@fredlaw.com	Fredrikson & Byron, P.A.	200 S 6th St Ste 4000 Minneapolis, MN 554021425	Electronic Service	No	SPL_SL_11-852_Interested Parties
Tammie	Carino	tcarino@GREnergy.com	Great River Energy	12300 Elm Creek Blvd. Maple Grove, MN 55369-4718	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Douglas M.	Carnival		McGrann Shea Anderson Carnival	Straugn & Lamb 800 Nicollet Mall, Suite 2600 Minneapolis, MN 554027035	Paper Service	No	SPL_SL_11-852_Interested Parties
Christopher	Clark	christopher.b.clark@xcelenergy.com	Xcel Energy	5th Floor 414 Nicollet Mall Minneapolis, MN 554011993	Paper Service	No	SPL_SL_11-852_Interested Parties
Kenneth A.	Colburn	kcolburn@symbioticstrategies.com	Symbiotic Strategies, LLC	26 Winton Road Meredith, NH 32535413	Paper Service	No	SPL_SL_11-852_Interested Parties
George	Crocker	gwillc@nawo.org	North American Water Office	PO Box 174 Lake Elmo, MN 55042	Paper Service	No	SPL_SL_11-852_Interested Parties
Mark F.	Dahlberg	markdahlberg@nweco.com	Northwestern Wisconsin Electric Company	P.O. Box 9 104 South Pine Street Grantsburg, WI 548400009	Paper Service	No	SPL_SL_11-852_Interested Parties
Jeffrey A.	Daugherty	jeffrey-daugherty@centerpointenergy.com	CenterPoint Energy	800 LaSalle Ave Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Curt	Dieren	cdieren@dgrnet.com	L&O Power Cooperative	1302 South Union Street PO Box 511 Rock Rapids, IA 51246	Paper Service	No	SPL_SL_11-852_Interested Parties
Mike	Eggl	smeier@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 58503	Paper Service	No	SPL_SL_11-852_Interested Parties
Kristen	Eide Tollefson	ket@wro-ns.net	R-CURE	P O Box 129 Frontenac, MN 55026	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Bob	Eleff		Regulated Industries Cmte	100 Rev Dr Martin Luther King Jr Blvd Room 600 St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Pam	Fergen		Henepin County Government Center CAO	A2000 300 S. Sixth Street Minneapolis, MN 55487	Paper Service	No	SPL_SL_11-852_Interested Parties
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	SPL_SL_11-852_Interested Parties
Henry	Fischer	terry.grabau@ecemn.com	East Central Energy	412 North Main Braham, MN 550060039	Paper Service	No	SPL_SL_11-852_Interested Parties
Lori	Frisk Thompson	lorift@utplus.com	Central Minnesota Municipal Power Agency	459 S Grove St Blue Earth, MN 56013	Electronic Service	No	SPL_SL_11-852_Interested Parties
John	Fuller		MN Senate	75 Rev Dr Martin Luther King Jr Blvd Room G-17 St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Edward	Garvey	garveyed@aol.com		32 Lawton Street St. Paul, MN 55102	Paper Service	No	SPL_SL_11-852_Interested Parties
Darrell	Gerber		Clean Water Action Alliance of Minnesota	308 Hennepin Ave. E. Minneapolis, MN 55414	Paper Service	No	SPL_SL_11-852_Interested Parties
Ronald	Giteck	ron.giteck@ag.state.mn.us	Office of the Attorney General-RUD	Residential Utilities Division 445 Minnesota Street, 1400 BRM Tower St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Elizabeth	Goodpaster	bgoodpaster@mncenter.org	MN Center for Environmental Advocacy	Suite 206 26 East Exchange Street St. Paul, MN 551011667	Paper Service	No	SPL_SL_11-852_Interested Parties
Bryan	Gower	N/A	APX, Inc.	224 Airport Parkway Suite 600 San Jose, CA 95110	Paper Service	No	SPL_SL_11-852_Interested Parties
Michael R.	Gravelle	michael.gravelle@avantenergy.com	Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Todd J.	Guerrero	tguerrero@fredlaw.com	Fredrikson & Byron, P.A.	Suite 4000 200 South Sixth Street Minneapolis, MN 554021425	Electronic Service	No	SPL_SL_11-852_Interested Parties
Burl W.	Haar	burl.haar@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Ronald	Harper	rharper@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 585030564	Paper Service	No	SPL_SL_11-852_Interested Parties
Bill	Heaney	billheaney@billheaney.com	IBEW Minnesota State Council	P. O. Box 65397 St. Paul, MN 551550397	Paper Service	No	SPL_SL_11-852_Interested Parties
John	Helmers	helmers.john@co.olmsted.mn.us	Olmsted County Waste to Energy	2122 Campus Drive SE Rochester, MN 55904-4744	Electronic Service	No	SPL_SL_11-852_Interested Parties
Annete	Henkel	mui@mnutilityinvestors.org	Minnesota Utility Investors	413 Wacouta Street #230 St.Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
Ashley	Houston			120 Fairway Rd Chestnut Hill, MA 24671850	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Lori	Hoyum	lhoyum@mnpower.com	Minnesota Power	30 West Superior Street Duluth, MN 55802	Electronic Service	No	SPL_SL_11-852_Interested Parties
Casey	Jacobson	cjacobson@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 58501	Paper Service	No	SPL_SL_11-852_Interested Parties
Amanda A	James	AmandaJames@alliantenergy.com	Interstate Power & Light Company - Gas	200 First St SE PO Box 351 Cedar Rapids, IA 52401-0351	Paper Service	No	SPL_SL_11-852_Interested Parties
Larry	Johnston	lw.johnston@smmpa.org	SMMPA	500 1st Ave SW Rochester, MN 55902-3303	Paper Service	No	SPL_SL_11-852_Interested Parties
Nancy	Kelly	nkelly@greeninstitute.org	The Green Institute	#110 2801 21st Avenue Minneapolis, MN 55407	Electronic Service	No	SPL_SL_11-852_Interested Parties
Julie	Ketchum		Waste Management	1901 Ames Drive Burnsville, MN 55306	Paper Service	No	SPL_SL_11-852_Interested Parties
Hank	Koegel	N/A	enXco	10 Second St., NE, Ste 107 Minneapolis, MN 55413	Paper Service	No	SPL_SL_11-852_Interested Parties
Nancy	Lange	nlange@iwla.org	Izaak Walton League of America	Suite 202 1619 Dayton Avenue St. Paul, MN 55104	Paper Service	No	SPL_SL_11-852_Interested Parties
Douglas	Larson	dlarson@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	SPL_SL_11-852_Interested Parties
Robert S	Lee	RSL@MCMLAW.COM	Mackall Crounse & Moore Law Offices	1400 AT&T Tower 901 Marquette Ave Minneapolis, MN 554022859	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Deborah Fohr	Levchak	dlevchak@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 585030564	Paper Service	No	SPL_SL_11-852_Interested Parties
John	Lindell	agorud.ecf@state.mn.us	Office of the Attorney General-RUD	900 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Mark	Lindquist		The Minnesota Project	1026 North Washington Street New Ulm, MN 56073	Paper Service	No	SPL_SL_11-852_Interested Parties
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E St. Paul, MN 55106	Paper Service	No	SPL_SL_11-852_Interested Parties
Mike	McDowell		Heartland Consumers Power District	PO Box 248 Madison, SD 570420248	Paper Service	No	SPL_SL_11-852_Interested Parties
Dave	McNary		Hennepin County DES	417 N. Fifth Street Minneapolis, MN 55401	Paper Service	No	SPL_SL_11-852_Interested Parties
John	McWilliams	jmm@dairynet.com	Dairyland Power Cooperative	3200 East Ave SPO Box 817 La Crosse, WI 54601-7227	Electronic Service	No	SPL_SL_11-852_Interested Parties
Valerie	Means	meansv@moss-barnett.com	Moss-Barnett	4800 Wells Fargo Center 90 South Seventh Street Minneapolis, MN 55402	Electronic Service	No	SPL_SL_11-852_Interested Parties
Brian	Meloy	brian.meloy@leonard.com	Leonard, Street & Deinard	150 S 5th St Ste 2300 Minneapolis, MN 55402	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Peder	Mewis	Peder.Mewis@senate.mn	Senate Energy, Util and Telecom Committee	Room 322, State Capitol 75 Rev. Dr. Martin Luther King Jr. Blvd. St. Paul, MN 55155-1606	Paper Service	No	SPL_SL_11-852_Interested Parties
Carl	Michaud	carl.michaud@co.hennepin.mn.us	Hennepin County DES	417 N. Fifth Street #200 Minneapolis, MN 554013206	Paper Service	No	SPL_SL_11-852_Interested Parties
Stacy	Miller	stacy.miller@state.mn.us	Office of Energy Security	State Energy Office 85 7th Place East, Suite 500 St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
David	Moeller	dmoeller@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022093	Electronic Service	No	SPL_SL_11-852_Interested Parties
Andrew	Moratzka	apm@mcmlaw.com	Mackall, Crounse and Moore	1400 AT&T Tower 901 Marquette Ave Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Bryan	Morlock	bmorlock@otpco.com	Otter Tail Power Company	215 South Cascade Street Box 496 Fergus Falls, MN 565380496	Electronic Service	No	SPL_SL_11-852_Interested Parties
Carl	Nelson	cnelson@mncee.org	Center for Energy and Environment	212 3rd Ave N Ste 560 Minneapolis, MN 55401	Electronic Service	No	SPL_SL_11-852_Interested Parties
David W.	Niles		Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Thomas L.	Osteraas	tomosteraas@excelsiorenergy.com	Excelsior Energy	225 S 6th St Ste 1730 Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Greg	Oxley	N/A	MMUA	3025 Harbor Ln N Ste 400 Plymouth, MN 55447-5142	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Joshua	Pearson	N/A	enXco, Inc.	15445 Innovation Drive San Diego, CA 92128	Paper Service	No	SPL_SL_11-852_Interested Parties
Mary Beth	Peranteau	mperanteau@wheelerlaw.com	Wheeler Van Sickle & Anderson SC	Suite 801 25 West Main Street Madison, WI 537033398	Paper Service	No	SPL_SL_11-852_Interested Parties
Randall	Porter		Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Kent	Ragsdale	kentragsdale@alliantenergy.com	Alliant Energy-Interstate Power and Light Company	P.O. Box 351 200 First Street, SE Cedar Rapids, IA 524060351	Paper Service	No	SPL_SL_11-852_Interested Parties
John C.	Reinhardt		Laura A. Reinhardt	3552 26Th Avenue South Minneapolis, MN 55406	Paper Service	No	SPL_SL_11-852_Interested Parties
Kevin	Reuther		MN Center for Environmental Advocacy	Suite 206 26 East Exchange Street St. Paul, MN 551011667	Paper Service	No	SPL_SL_11-852_Interested Parties
Trudy	Richter	trichter@rranow.com	Minnesota Resource Recovery Assn.	477 Selby Avenue St. Paul, MN 55102	Paper Service	No	SPL_SL_11-852_Interested Parties
Amy	Rudolph	Amy.Rudolph@house.mn	House Env, Energy & Natural Res Committee	Rom 363, State Office Bldg. 100 Rev. Dr. Martin Luther King Jr. Blvd. St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Robert K.	Sahr	bsahr@eastriver.coop	East River Electric Power Cooperative	P.O. Box 227 Madison, SD 57042	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Raymond	Sand	rms@dairynet.com	Dairyland Power Cooperative	P.O. Box 8173200 East Avenue South LaCrosse, WI 546020817	Electronic Service	No	SPL_SL_11-852_Interested Parties
Richard	Savelkoul	rsavelkoul@felhaber.com	Felhaber, Larson, Fenlon & Vogt, P.A.	444 Cedar St Ste 2100 St. Paul, MN 55101-2136	Paper Service	No	SPL_SL_11-852_Interested Parties
Matthew J.	Schuerger P.E.		Energy Systems Consulting Services, LLC	P.O. Box 16129 St. Paul, MN 55116	Paper Service	No	SPL_SL_11-852_Interested Parties
Robert H.	Schulte	rhs@schulteassociates.com	Schulte Associates LLC	15347 Boulder Pointe Road Eden Prairie, MN 55347	Paper Service	No	SPL_SL_11-852_Interested Parties
Dean	Sedgwick		Itasca Power Company	PO Box 457 Spring Lake, MN 566800457	Paper Service	No	SPL_SL_11-852_Interested Parties
Mrg	Simon	mrgsimon@mrenergy.com	Missouri River Energy Services	3724 W. Avera Drive P.O. Box 88920 Sioux Falls, SD 571098920	Electronic Service	No	SPL_SL_11-852_Interested Parties
Beth H.	Soholt	bsoholt@windonthewires.org	Wind on the Wires	Suite 203 1619 Dayton Avenue St. Paul, MN 551046206	Paper Service	No	SPL_SL_11-852_Interested Parties
Dale	Sollom	dsollom@minnkota.com	Minnkota Power Cooperative, Inc.	PO Box 13200 Grand Forks, ND 58208-3200	Electronic Service	No	SPL_SL_11-852_Interested Parties
David	Strom	davids@mnfmi.org	Minnesota Free Market Institute	P.O. Box 120449 St. Paul, MN 55112	Paper Service	No	SPL_SL_11-852_Interested Parties
James M.	Strommen	jstrommen@kennedy-graven.com	Kennedy & Graven, Chartered	470 U.S. Bank Plaza 200 South Sixth Stree Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	SPL_SL_11-852_Interested Parties
Linda	Taylor	taylor@fresh-energy.org	Fresh Energy	408 St Peter St Suite 220 St. Paul, MN 55102-1125	Electronic Service	No	SPL_SL_11-852_Interested Parties
Steve	Thompson		Central Minnesota Municipal Power Agency	459 S Grove St Blue Earth, MN 56013-2629	Paper Service	No	SPL_SL_11-852_Interested Parties
SaGonna	Thompson	Regulatory.Records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	SPL_SL_11-852_Interested Parties
Douglas	Tiffany	tiffa002@umn.edu	University of Minnesota	316d Ruttan Hall 1994 Buford Avenue St. Paul, MN 55108	Paper Service	No	SPL_SL_11-852_Interested Parties
Pat	Treseler	pat.jcplaw@comcast.net	Paulson Law Office LTD	Suite 325 7301 Ohms Lane Edina, MN 55439	Electronic Service	No	SPL_SL_11-852_Interested Parties
Darryl	Tveitbakk		Northern Municipal Power Agency	123 Second Street West Thief River Falls, MN 56701	Paper Service	No	SPL_SL_11-852_Interested Parties
Roger	Warehime	warehimer@owatonnautilities.com	Owatonna Public Utilities	208 South WalnutPO Box 800 Owatonna, MN 55060	Paper Service	No	SPL_SL_11-852_Interested Parties
Paul	White	paul@projectresources.net	Project Resources Corp.	618 Second Avenue SE Minneapolis, MN 55414	Paper Service	No	SPL_SL_11-852_Interested Parties
Robyn	Woeste	robynwoeste@alliantenergy.com	Interstate Power and Light Company	P.O. Box 351 200 First St SE Cedar Rapids, IA 524060351	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Thomas J.	Zaremba		WHEELER, VAN SICKLE & ANDERSON	Suite 801 25 West Main Street Madison, WI 537033398	Paper Service	No	SPL_SL_11-852_Interested Parties

MISSOURI RIVER
ENERGY SERVICES®

3724 West Avera Drive
PO Box 88920
Sioux Falls, SD 57109-8920
Telephone: 605.338.4042
Fax: 605.978.9360
www.mrenergy.com

October 19, 2011

VIA E-Filing and U.S. Mail

Dr. Burl Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

RE: In the Matter of the Utility Renewable Energy Cost Impact Reports Required by Minnesota Statutes Section 216B.1691, Subd. 2(e)
Dkt E-999/CI-11-852

Dear Dr. Haar:

Enclosed for filing is the MRES Renewable Energy Rate Impact Report, in regard to the above referenced docket.

We have served a copy to all parties on the official service list. Please contact me at 800.678.4042 or by email at tasha.altmann@mrenergy.com if you have any questions regarding this filing.

Sincerely,

Tasha Altmann

Tasha Altmann, CP
Certified Paralegal, Legal

Enc.

c: Service List

STATE OF MINNESOTA
BEFORE THE PUBLIC UTILITIES COMMISSION

Ellen Anderson	Chair
Dr. David C. Boyd	Commissioner
J. Dennis O'Brien	Commissioner
Phyllis A. Reha	Commissioner
Betsy Wergin	Commissioner

In the Matter of the Utility Renewable Energy Cost Impact Reports Required by Minnesota Statutes Section 216B.1691, Subd. 2(e)	Docket No. E-999/CI-11-852 October 19, 2011

MRES RENEWABLE ENERGY RATE IMPACT REPORT

Missouri Basin Municipal Power Agency, doing business as Missouri River Energy Services (MRES) submits to the Minnesota Public Utilities Commission (Commission) its report on the impact on its rates of the Minnesota Renewable Energy Objective and Standard, pursuant to Minn. Stat. 216B.1691, subd. 2(e).

Introduction

MRES is a not-for-profit, joint action agency serving 61 member municipal electric utilities in Iowa, Minnesota, North Dakota and South Dakota. As a member-based entity, MRES is governed by a board of directors, elected from and by the member municipal utilities it serves. As the governing body, the MRES Board of Directors is responsible for setting the wholesale rates for the energy and energy services it provides to it members.

Most of the members of MRES receive a fixed allocation of hydroelectric power and energy from the Western Area Power Administration (WAPA), and purchase from MRES the supplemental power and energy to meet their needs over and above their WAPA allocation. On average, 45 percent of the power supply for MRES members is met by hydropower. As part of its responsibility, MRES provides its members with a balanced power supply portfolio, including renewable generation. MRES has included wind energy in its power supply program since 2002.

The primary resources MRES uses to meet its power supply obligations to its members are owned by Western Minnesota Municipal Power Agency (Western Minnesota). Western Minnesota's principal activity is the acquisition and ownership of generation and transmission facilities and the sale of its entitlement to power, energy and transmission capability associated therewith to MRES pursuant to an exclusive power supply contract. Western Minnesota is a Minnesota municipal power agency, organized under Minn. Stat. Ch. 453.51 et. seq. As such,

Western Minnesota is governed by a board of directors, elected by and from its 24 Minnesota member communities, all of which own municipal utilities.

As a wholesale utility that provides energy and energy services to municipal utilities in Minnesota, MRES files an integrated resource plan with the Commission, pursuant to Minn. Stat. 216B.2422. Its most recent plan, the 2011-2025 Resource Plan, Docket ET10/RP-10-735, was filed on July 1, 2010, and is pending before the Commission.

MRES and Western Minnesota are joint-action agencies that are uniquely structured. Neither MRES nor Western Minnesota provides retail service in Minnesota to end use customers. However, as a wholesale electricity supplier to 24 member distribution utilities in the state, MRES has the responsibility for providing a balanced power supply portfolio, including meeting renewable energy objectives (REO) and renewable energy standards (RES). Since the inception of the Minnesota Renewable Energy Objective (which went into effect in 2005), and its development into the Renewable Energy Standard, the Commission has consistently found that MRES has complied with the state-mandated goals and directives to incorporate additional renewable energy into its portfolio. *See, e.g., In the Matter of Commission Consideration and Determination on Compliance with Renewable Energy Obligations and Renewable Energy Standards*, Docket No. E-999/N-10-989, "Order Finding Utilities in Compliance and Clarifying Requirements for Reporting Wholesale Electricity Sales" (May 13, 2011). As of this writing, MRES anticipates that twelve percent (12%) of its resources supplied to its members in all four states will be from renewable sources.

Rate Impact of Renewable Energy Requirements

The 2011 Minnesota Legislature adopted a new requirement that each utility must estimate the wholesale rate impact of activities necessary to comply with Minn. Stat. 216B.1691.[1] Since the first renewable energy requirement of section 216B.1691 went into effect in 2005, MRES has had a wholesale rate increase to its members in three years: 2007, 2008 and 2009. The rate increases for these years assumed that the cost of renewable energy was lower than the cost of market purchases and therefore, renewable energy did not impact the rate increases for these years. There has been no rate increase for wholesale power supply since 2009.

---

[1] Minn. Stat. 216B.1691, Subd. 2e. provides: **"Rate impact of standard compliance; report.** Each electric utility must submit to the commission and the legislative committees with primary jurisdiction over energy policy a report containing an estimation of the rate impact of activities of the electric utility necessary to comply with section 216B.1691. The rate impact estimate must be for wholesale rates and, if the electric utility makes retail sales, the estimate shall also be for the impact on the electric utility's retail rates. Those activities include, without limitation, energy purchases, generation facility acquisition and construction, and transmission improvements. An initial report must be submitted within 150 days of the effective date of this section. After the initial report, a report must be updated and submitted as part of each integrated resource plan or plan modification filed by the electric utility under section 216B.2422. The reporting obligation of an electric utility under this subdivision expires December 31, 2025, for an electric utility subject to subdivision 2a, paragraph (a), and December 31, 2020, for an electric utility subject to subdivision 2a, paragraph (b)."

For MRES, renewable energy is assumed to replace market purchases. The actual cost per MWh of renewable energy in 2006, 2007 and 2008 was less than the actual cost per MWh of market purchases. As a result, renewable energy reduced MRES costs by an average of 0.7% in these years. However, the actual cost per MWh of renewable energy in 2009 and 2010 was greater than market purchases. For those two years, renewable energy increased MRES costs by an average of 3.4%. In total, renewable energy increased MRES costs from 2006-2010 by 1.2%. Because renewable energy in the MRES portfolio typically replaces market purchases, the difference between renewable energy and the market price of energy has a direct impact on total MRES costs. Substantially all of the renewable resources in the MRES portfolio have a fixed cost. In years when the market price is higher than the fixed price, the average cost of MRES renewable resources may prove to be a benefit. However, when the market price of energy is lower, it results in a cost to MRES.

Environmental, transmission, and capacity costs have not been considered for purposes of this report. In addition, the wholesale rate impact for future years has not been estimated and included in this report. This information can be found in the MRES 2011-2025 Resource Plan that is currently pending before the Commission.

Conclusion

MRES respectfully requests that the Commission accept for filing this report on the rate impact of renewable energy requirements.

Respectfully submitted,

MISSOURI RIVER ENERGY SERVICES

By: 

Derek Bertsch
Staff Attorney, Legal
Missouri River Energy Services
P.O. Box 88920
Sioux Falls, SD 57109-8920
605-338-4042

STATE OF MINNESOTA
BEFORE THE PUBLIC UTILITIES COMMISSION

Ellen Anderson	Chair
Dr. David C. Boyd	Commissioner
J. Dennis O'Brien	Commissioner
Phyllis A. Reha	Commissioner
Betsy Wergin	Commissioner

In the Matter of the Utility Renewable Energy Cost Impact Reports Required by Minnesota Statutes Section 216B.1691, Subd. 2(e)

Docket No. E-999/CI-11-852
October 19, 2011

MRES RENEWABLE ENERGY RATE IMPACT REPORT

AFFIDAVIT OF SERVICE

STATE OF SOUTH DAKOTA)
) SS.
COUNTY OF LINCOLN)

I, Tasha Altmann, being first duly sworn, depose and state that on the 19 day of October, 2011, I filed the MRES Renewable Energy Rate Impact Report on behalf of Missouri River Energy Services by E-Docket with the Minnesota Public Utilities Commission, 121 7th Place East, Suite 350, Saint Paul, MN 55101-2147, and where not served by email, I have served a true and correct copy thereof by depositing the same in the US Mail at Sioux Falls, South Dakota.

Tasha Altmann

Subscribed and sworn to before me

this 19 day of October, 2011.

GERALDYNE SHUMAKER
SEAL NOTARY PUBLIC SEAL
SOUTH DAKOTA

Geraldyne Shumaker
My commission expires: Geraldyne Shumaker
Notary Public, South Dakota
My Commission Expires Nov. 16, 2016

Northwestern
Wisconsin Electric Company

Phone (715) 463-5371
FAX (715) 463-2765

104 South Pine Street • P.O. Box 9 • Grantsburg, WI 54840-0009

Dr. Burl Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East
Suite 350
Saint Paul, MN 55101

Re: In the Matter of Utility Renewable Energy Cost Impact Reports Required by Minnesota Statues Section 216B.1691, Subk. 2e. Docket No. E-999/CI-11-852

Dear Dr. Haar:

NWE serves approximately 100 customers in Minnesota with annual sales of 552 Mwh's. Our WI requirement (RPS) is at 14.48%.

Historically, we have met our renewable requirements with inventory and procurement within our wholesale contracts with wholesale suppliers. We do not feel that the Minnesota Renewable Energy Objectives have had a rate impact on any of our customers.

Sincerely,

John J. Richards
Northwestern Wisconsin Electric Company

215 South Cascade Street
PO Box 496
Fergus Falls, Minnesota 56538-0496
218 739-8200
www.otpco.com (web site)

October 24, 2011

Dr. Burl Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

Representative Tom Hackbarth
Chair, Energy Subcommittee
409 State Office Building
100 Rev. Martin Luther King Jr. Blvd.
St. Paul, MN 55155-1206

Representative Denny McNamara
Chair, Environment, Energy and
Natural Resources Committee
375 State Office Building
100 Rev. Martin Luther King Jr. Blvd.
St. Paul, MN 55155-1206

Senator Julie Rosen
Chair, Energy Committee
322 State Capitol
75 Rev. Martin Luther King Jr. Blvd.
St. Paul, MN 55155-1606

RE: In the Matter of Utility Renewable Energy Cost Impact Reports Required by Minnesota Statutes Section 216B.1691, Subd. 2e.
Docket No. E-999/CI-11-852

Dear Dr. Haar, Rep. Hackbarth, Rep. McNamara, Sen. Rosen,

Otter Tail Power Company respectfully submits its report estimating the rate impacts of activities of the company necessary to comply with section 216B.1691 to the Minnesota Public Utilities Commission and to the legislative committees with primary jurisdiction over energy policy.

Please contact me at bhdraxten@otpco.com or (218)-739-8417 with any questions you may have.

Sincerely,

/s/ BRIAN DRAXTEN
Brian Draxten
Manager, Resource Planning

wao
Enclosures
c: Service List
Darrell Nitschke
Patricia Van Gerpen

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of Utility Renewable Energy Cost Impact Reports Required by Minnesota Statutes Section 216B.1691, Subd. 2e.	Docket No. E-999/CI-11-852

OTTER TAIL POWER COMPANY RENEWABLE ENERGY COST IMPACT REPORT

Introduction

Minnesota Laws 2011, Chapter 97, Section 15, amends Minn. Stat. §216B.1691 [Renewable Energy Objectives] by adding a Subdivision 2e. This subdivision requires each electric utility subject to the statute to submit to the Minnesota Public Utilities Commission (Commission) and to the legislative committees with primary jurisdiction over energy policy *"a report containing an estimate of the rate impact of activities of the electric utility necessary to comply with section 216B.1691."* This initial report is to be submitted within 150 days of the effective date of the legislation. The report must be updated and submitted in subsequent resource plans.

If the electric utility makes retail sales, the estimate shall be for the impact on the electric utility's retail rates. Those activities include energy purchases, generation facility acquisition and construction, and transmission improvements. The reporting obligation for an electric utility subject to Section 216B.1691, subdivision 2a, paragraph (a), expires December 31, 2025.

Otter Tail Power Company's Perspective on Renewable Energy

Beginning in 2003, Otter Tail Power Company (Otter Tail) has made a significant commitment to renewable wind energy. Each of the owned wind projects and purchase power agreements (PPA) that Otter Tail has entered into has been a least cost resource. Planned future wind investments included in the company's current Integrated Resource Plan (IRP) are also part of the least cost plan. While Otter Tail's existing and planned future wind resources will assure that the company complies with the Minnesota RES and the North Dakota and South Dakota Renewable Energy Objectives through 2025, it is important to note that the company would have added these resources with or without legislative mandates.

Federal and state tax incentives are an important component of the cost structure of Otter Tail's wind projects. Otter Tail expects any future wind projects to be completed prior to the expiration of any renewable tax credits.

Methods and Assumptions

This is Otter Tail's initial report under subdivision 2e of Section 216B.1691. This report, which estimates the rate impact of the RES on Otter Tail's customers, is provided in two sections. The first section compares the revenue requirements of Otter Tail's renewable resources that were placed into service from January 1, 2007 through December 31, 2010 to the hourly MISO Locational Marginal Price (LMP). Section one is referred to as "Past RES Compliance." The second section compares the net present value of revenue requirements (NPVRR) produced by Otter Tail's capacity expansion planning model (Strategist) in its 2010 base case resource plan to the NPVRR produced by a Strategist scenario run assuming no additional renewable resources will be added after 2010. Section two is referred to as "Future RES Compliance."

Past RES Compliance

Since the enactment of the MN RES, Otter Tail has added wind energy resources with a nameplate capacity rating of 157.5 MW. Wind energy resources with a nameplate capacity rating of 108 MW were added in 2008 and an additional 49.5 MW were added in 2009.

The table and graph below show the replacement energy costs, annual revenue requirements, and levelized revenue requirements for those wind energy resources from year 2008 through year 2025.

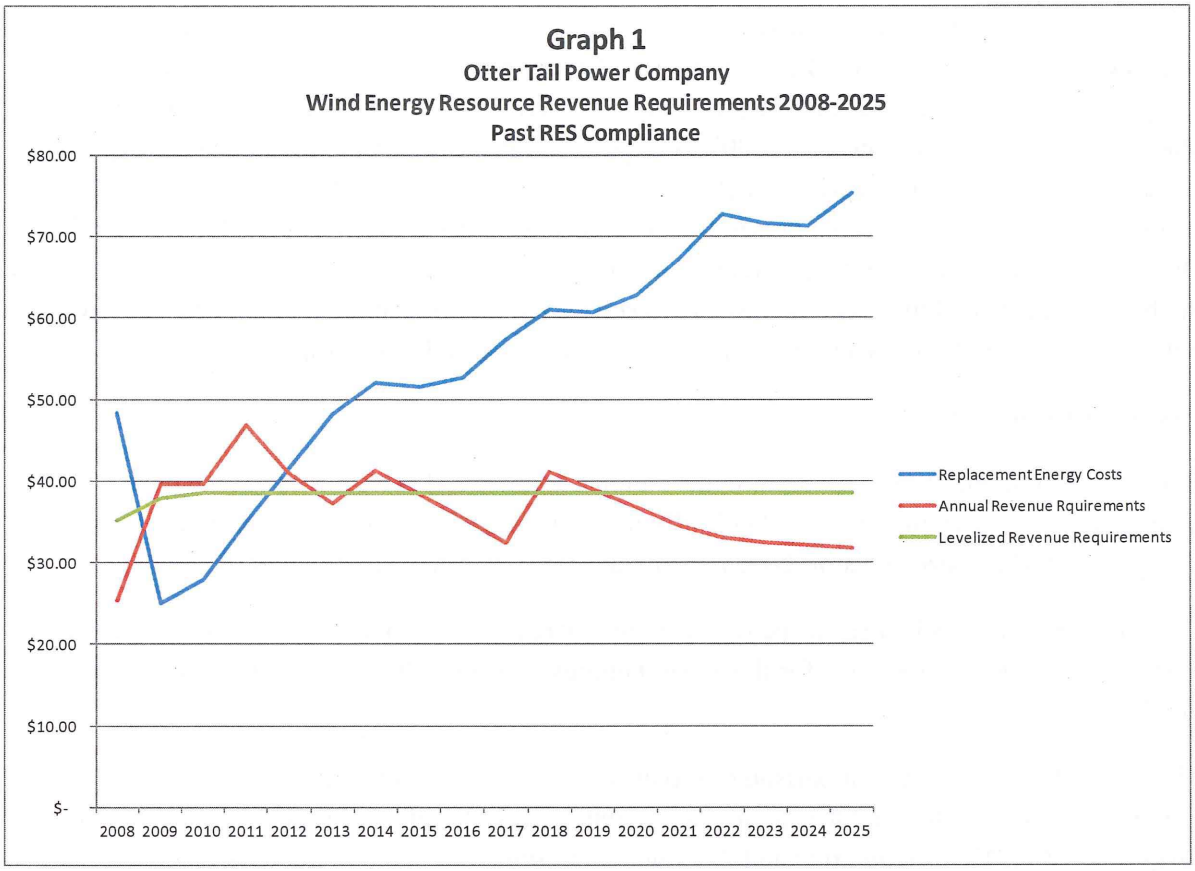
The 2008-2010 historical comparison of replacement energy costs to annual revenue requirements shows that in 2008 the impact on retail rates of wind additions were a reduction to retail rates of 1.8% while in 2009 and 2010 wind additions increased retail rates by 2.16% and 2.06% respectively.

Replacement energy costs for the years 2008-2010 reflect the Day Ahead MISO LMP at the OTP load zone. Replacement energy costs for the years 2011-2025 reflect forecasted prices for the MISO Minnesota Hub LMP that were used in Otter Tail's 2010 IRP.

Annual revenue requirements for the years 2008-2010 reflect the amounts that were billed to customers through renewable energy riders. Annual revenue requirements for the years 2011-2025 reflect the annual revenue requirements from the company's 2010 IRP and that were used in Otter Tail's analysis of potential renewable projects.

Levelized revenue requirements for the year 2008-2025 reflect the average revenue requirements over the useful life of the wind energy resources as determined in Otter Tail's analysis of potential renewable projects.

Otter Tail recognizes that using the MISO LMP as a replacement energy cost and comparing it to annual revenue requirements to calculate a rate impact is filled with limitations, sensitivities and uncertainties. Please see the section below titled "Limitations, Sensitivities, and Uncertainties" for more information.



Otter Tail Power Company Wind Energy Resource Revenue Requirements 2008-2025									
	2008	2009	2010	2011	2012	2013	2014	2015	2016
Replacement Energy Costs	$ 48.32	$ 25.13	$ 28.00	$ 35.04	$ 41.57	$ 48.24	$ 52.05	$ 51.54	$ 52.74
Annual Revenue Requirements	$ 25.35	$ 39.62	$ 39.69	$ 46.83	$ 40.92	$ 37.27	$ 41.31	$ 38.41	$ 35.44
Levelized Revenue Requirements	$ 35.16	$ 37.83	$ 38.55	$ 38.55	$ 38.55	$ 38.55	$ 38.55	$ 38.55	$ 38.55
	2017	2018	2019	2020	2021	2022	2023	2024	2025
Replacement Energy Costs	$ 57.40	$ 61.01	$ 60.74	$ 62.73	$ 67.33	$ 72.79	$ 71.62	$ 71.30	$ 75.27
Annual Revenue Requirements	$ 32.42	$ 41.05	$ 39.03	$ 36.76	$ 34.51	$ 33.06	$ 32.49	$ 32.11	$ 31.76
Levelized Revenue Requirements	$ 38.55	$ 38.55	$ 38.55	$ 38.55	$ 38.55	$ 38.55	$ 38.55	$ 38.55	$ 38.55

Future RES Compliance

Otter Tail's 2010 IRP included an additional 50 MW of wind energy resources in 2012. The company ran an alternate Strategist scenario that did not allow any additional wind energy or other renewable energy resource in the 2011 through 2025 planning period. The NPVRR from the resource plan Base Case and the alternate case were compared to determine the cost/benefit of the MN RES. The net amount was then divided by estimated retail sales for the 2010 through 2025 planning period to determine the rate impact.

The NPVRR of the alternate case where no new wind or other renewables were allowed was $34,541,300 more expensive than the Base Case despite not including any environmental externalities benefits. Based on estimated sales over the 2011 through 2025 planning period, retail rates were 0.6% less with renewable included as opposed to a scenario where no new renewable energy was allowed.

Environmental Costs and Benefits

It is difficult to predict the future of externality costs, especially carbon. While the Commission has prescribed a range of $9 - $34 per MWh for CO2 beginning in 2012, it is extremely unlikely that any carbon legislation could be in place that quickly. While the company did not attempt to calculate a dollar cost of environmental impacts, any MWh produced by wind would not be assessed environmental externality costs.

Wholesale Rate Impacts

Otter Tail's wholesale sales are only .1% of its total retail sales so the impact is insignificant. The rate impact of the RES on an individual customer would be very similar to that of a retail customer.

Transmission Costs and Benefits

From 2007 through 2010, Otter Tail invested in transmission improvements due to the interconnection of wind energy resources at Langdon, Ashtabula, and Luverne. The following transmission improvements are considered generation costs and are included in the table above as part of Annual and Levelized Revenue Requirements.

- Langdon Wind Collector 115 kV Line Addition
- Langdon 115 kV Substation Addition
- Maple River 230 kV Line Addition
- Pillsbury 230 kV Line Addition
- Pillsbury 230 kV Switch Station Addition
- Sheyenne 230 kV Line Upgrade
- Wilton 115 kV Line Upgrade

Transmission improvements including the Sheyenne 230 kV line upgrade and Wilton 115 kV Line upgrade were completed as a result of studies completed for wind projects but they also support load serving in the region. Wind additions drove the need for these projects before load serving required it.

Limitations, Sensitivities, and Uncertainties

Otter Tail suggests a focus on the Future RES Compliance section because there are several limitations of the Past RES Compliance, which Otter Tail interpreted as being required by the legislation. Some of the limitations, sensitivities, and uncertainties with the Past RES Compliance comparison follow:

1. As with any resource addition, renewable projects are analyzed based on all of the project costs and revenues over the entire life of the project. Viewing renewable projects for the first one to three years of a project is an incomplete analysis because the first years often bear the highest cost of the project due to the upfront investment. When viewed in isolation over a short period of time, as was done in the "Past RES Compliance" section above, it would appear that the project is more expensive than other options. However, when looking at the project over its entire life as was done in the "Future RES Compliance" section above, the project is correctly viewed as a least cost option.

2. It is important to note that in this study, the assumed alternative to a wind resource is the MISO Day Ahead LMP market. This alternative exposes the customer to much greater risk than a longer-term forward Purchase Power Agreement. In fact, the Department of Commerce and the Commission have not favored the practice of relying on the short-term market to meet a company's energy needs. Prices of forward looking purchase alternatives that could be obtained to mitigate this hourly spot market volatility and risk exposure are generally materially higher than historical marginal costs that drive the LMP market.

3. By definition, the hourly LMP market is based upon marginal costs. This marginal cost is primarily driven by the variable costs of resources. Therefore, any resource comparison using the all-in fixed and variable cost of a resource addition to this hourly LMP is a false comparison that can result in inaccurate conclusions.

4. Any long-term resource analysis is based on a multitude of assumptions at a given point in time. Using historical comparisons to determine if projects were lower cost than other options is essentially using "20/20 hindsight."

5. Otter Tail's rate comparisons were made for the company as a whole, not just Minnesota customers. Also, the rate impacts shown are an average for all customer rate classes. It would be very complicated to breakdown the rate impacts into various rate groups with greatly differing rate design issues.

6. Comparing the all-in cost of a wind project to Day Ahead MISO LMP prices does not give the wind resource any credit for the capacity rating of the wind resource. Otter Tail's current wind resources are accredited for approximately 40 MW in MISO Module E. Based upon an avoided $1,000,000/MW gas peaking plant, this capacity is valued at approximately $40 million of offsetting investment needs. That value is reflected in the Future RES Compliance analysis but is not in the Past RES Compliance analysis.

Conclusion

There are some individual years early in the study period where the inclusion of wind energy could be viewed as resulting in a slight increase in electricity cost to customers of Otter Tail when compared to Day Ahead MISO LMP prices. However, over the entire life of a wind project, there is a significant reduction in electricity costs to Otter Tail's customers.

Dated: October 24, 2011

Respectfully submitted,

OTTER TAIL POWER COMPANY

By: */s/ BRIAN DRAXTEN*

Brian Draxten
Manager, Resource Planning
Otter Tail Power Company
215 South Cascade Street
P. O. Box 496
Fergus Falls, MN 56538-0496
(218) 739-8417

CERTIFICATE OF SERVICE

RE: In the Matter of Utility Renewable Energy Cost Impact Reports Required by Minnesota Statutes Section 216B.1691, Subd. 2e.
Docket No. E-999/CI-11-852

I, Wendi A. Olson, hereby certify that I have this day served a copy of the following, or a summary thereof, on Dr. Burl W. Haar and Sharon Ferguson by e-filing and to Tom Hackbarth, Denny McNamara, Julie Rosen and all other persons on the attached service list by electronic service or by First Class mail.

Otter Tail Power Company
Report

Dated this **24th** day of **October, 2011**.

/s/ WENDI A. OLSON
Wendi A. Olson
Regulatory Filing Coordinator
Otter Tail Power Company
215 South Cascade Street
Fergus Falls MN 56537
(218) 739-8699

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
David	Aafedt	daafedt@winthrop.com	Winthrop & Weinstine, P.A.	Suite 3500, 225 South Sixth Street Minneapolis, MN 554024629	Paper Service	No	SPL_SL_11-852_Interested Parties
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Christopher	Anderson	canderson@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022191	Electronic Service	No	SPL_SL_11-852_Interested Parties
William A.	Blazar	bblazar@mnchamber.com	Minnesota Chamber Of Commerce	Suite 1500 400 Robert Street North St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
Michael	Bradley	bradleym@moss-barnett.com	Moss & Barnett	4800 Wells Fargo Ctr 90 S 7th St Minneapolis, MN 55402-4129	Electronic Service	No	SPL_SL_11-852_Interested Parties
Jon	Brekke	jbrekke@grenergy.com	Great River Energy	12300 Elm Creek Boulevard Maple Grove, MN 553694718	Paper Service	No	SPL_SL_11-852_Interested Parties
Mark B.	Bring	mbring@ottertail.com	Otter Tail Corporation	215 South Cascade Street PO Box 496 Fergus Falls, MN 565380496	Paper Service	No	SPL_SL_11-852_Interested Parties
B. Andrew	Brown	brown.andrew@dorsey.com	Dorsey & Whitney LLP	Suite 1500 50 South Sixth Street Minneapolis, MN 554021498	Paper Service	No	SPL_SL_11-852_Interested Parties
Christina	Brusven	cbrusven@fredlaw.com	Fredrikson & Byron, P.A.	200 S 6th St Ste 4000 Minneapolis, MN 554021425	Electronic Service	No	SPL_SL_11-852_Interested Parties
Tammie	Carino	tcarino@GREnergy.com	Great River Energy	12300 Elm Creek Blvd. Maple Grove, MN 55369-4718	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Douglas M.	Carnival		McGrann Shea Anderson Carnival	Straugn & Lamb 800 Nicollet Mall, Suite 2600 Minneapolis, MN 554027035	Paper Service	No	SPL_SL_11-852_Interested Parties
Christopher	Clark	christopher.b.clark@xcelenergy.com	Xcel Energy	5th Floor 414 Nicollet Mall Minneapolis, MN 554011993	Paper Service	No	SPL_SL_11-852_Interested Parties
Kenneth A.	Colburn	kcolburn@symbioticstrategies.com	Symbiotic Strategies, LLC	26 Winton Road Meredith, NH 32535413	Paper Service	No	SPL_SL_11-852_Interested Parties
George	Crocker	gwillc@nawo.org	North American Water Office	PO Box 174 Lake Elmo, MN 55042	Paper Service	No	SPL_SL_11-852_Interested Parties
Mark F.	Dahlberg	markdahlberg@nweco.com	Northwestern Wisconsin Electric Company	P.O. Box 9 104 South Pine Street Grantsburg, WI 548400009	Paper Service	No	SPL_SL_11-852_Interested Parties
Jeffrey A.	Daugherty	jeffrey-daugherty@centerpointenergy.com	CenterPoint Energy	800 LaSalle Ave Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Curt	Dieren	cdieren@dgrnet.com	L&O Power Cooperative	1302 South Union Street PO Box 511 Rock Rapids, IA 51246	Paper Service	No	SPL_SL_11-852_Interested Parties
Mike	Eggl	smeier@bepc.com	Basin Electric Power Cooperative	1717 East Intertate Avenue Bismarck, ND 58503	Paper Service	No	SPL_SL_11-852_Interested Parties
Kristen	Eide Tollefson	ket@wro-ns.net	R-CURE	P O Box 129 Frontenac, MN 55026	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Bob	Eleff		Regulated Industries Cmte	100 Rev Dr Martin Luther King Jr Blvd Room 600 St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Pam	Fergen		Henepin County Government Center CAO	A2000 300 S. Sixth Street Minneapolis, MN 55487	Paper Service	No	SPL_SL_11-852_Interested Parties
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	SPL_SL_11-852_Interested Parties
Henry	Fischer	terry.grabau@ecemn.com	East Central Energy	412 North Main Braham, MN 550060039	Paper Service	No	SPL_SL_11-852_Interested Parties
Lori	Frisk Thompson	lorift@utplus.com	Central Minnesota Municipal Power Agency	459 S Grove St Blue Earth, MN 56013	Electronic Service	No	SPL_SL_11-852_Interested Parties
John	Fuller		MN Senate	75 Rev Dr Martin Luther King Jr Blvd Room G-17 St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Edward	Garvey	garveyed@aol.com		32 Lawton Street St. Paul, MN 55102	Paper Service	No	SPL_SL_11-852_Interested Parties
Darrell	Gerber		Clean Water Action Alliance of Minnesota	308 Hennepin Ave. E. Minneapolis, MN 55414	Paper Service	No	SPL_SL_11-852_Interested Parties
Ronald	Giteck	ron.giteck@ag.state.mn.us	Office of the Attorney General-RUD	Residential Utilities Division 445 Minnesota Street, 1400 BRM Tower St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Elizabeth	Goodpaster	bgoodpaster@mncenter.org	MN Center for Environmental Advocacy	Suite 206 26 East Exchange Street St. Paul, MN 551011667	Paper Service	No	SPL_SL_11-852_Interested Parties
Bryan	Gower	N/A	APX, Inc.	224 Airport Parkway Suite 600 San Jose, CA 95110	Paper Service	No	SPL_SL_11-852_Interested Parties
Michael R.	Gravelle	michael.gravelle@avantenergy.com	Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Todd J.	Guerrero	tguerrero@fredlaw.com	Fredrikson & Byron, P.A.	Suite 4000 200 South Sixth Street Minneapolis, MN 554021425	Electronic Service	No	SPL_SL_11-852_Interested Parties
Burl W.	Haar	burl.haar@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Ronald	Harper	rharper@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 585030564	Paper Service	No	SPL_SL_11-852_Interested Parties
Bill	Heaney	billheaney@billheaney.com	IBEW Minnesota State Council	P. O. Box 65397 St. Paul, MN 551550397	Paper Service	No	SPL_SL_11-852_Interested Parties
John	Helmers	helmers.john@co.olmsted.mn.us	Olmsted County Waste to Energy	2122 Campus Drive SE Rochester, MN 55904-4744	Electronic Service	No	SPL_SL_11-852_Interested Parties
Annete	Henkel	mui@mnutilityinvestors.org	Minnesota Utility Investors	413 Wacouta Street #230 St.Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
Ashley	Houston			120 Fairway Rd Chestnut Hill, MA 24671850	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Lori	Hoyum	lhoyum@mnpower.com	Minnesota Power	30 West Superior Street Duluth, MN 55802	Electronic Service	No	SPL_SL_11-852_Interested Parties
Casey	Jacobson	cjacobson@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 58501	Paper Service	No	SPL_SL_11-852_Interested Parties
Amanda A	James	AmandaJames@alliantenergy.com	Interstate Power & Light Company - Gas	200 First St SE PO Box 351 Cedar Rapids, IA 52401-0351	Paper Service	No	SPL_SL_11-852_Interested Parties
Larry	Johnston	lw.johnston@smmpa.org	SMMPA	500 1st Ave SW Rochester, MN 55902-3303	Paper Service	No	SPL_SL_11-852_Interested Parties
Nancy	Kelly	nkelly@greeninstitute.org	The Green Institute	#110 2801 21st Avenue Minneapolis, MN 55407	Electronic Service	No	SPL_SL_11-852_Interested Parties
Julie	Ketchum		Waste Management	1901 Ames Drive Burnsville, MN 55306	Paper Service	No	SPL_SL_11-852_Interested Parties
Hank	Koegel	N/A	enXco	10 Second St., NE, Ste 107 Minneapolis, MN 55413	Paper Service	No	SPL_SL_11-852_Interested Parties
Nancy	Lange	nlange@iwla.org	Izaak Walton League of America	Suite 202 1619 Dayton Avenue St. Paul, MN 55104	Paper Service	No	SPL_SL_11-852_Interested Parties
Douglas	Larson	dlarson@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	SPL_SL_11-852_Interested Parties
Robert S	Lee	RSL@MCMLAW.COM	Mackall Crounse & Moore Law Offices	1400 AT&T Tower 901 Marquette Ave Minneapolis, MN 554022859	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Deborah Fohr	Levchak	dlevchak@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 585030564	Paper Service	No	SPL_SL_11-852_Interested Parties
John	Lindell	agorud.ecf@state.mn.us	Office of the Attorney General-RUD	900 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Mark	Lindquist		The Minnesota Project	1026 North Washington Street New Ulm, MN 56073	Paper Service	No	SPL_SL_11-852_Interested Parties
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E St. Paul, MN 55106	Paper Service	No	SPL_SL_11-852_Interested Parties
Mike	McDowell		Heartland Consumers Power District	PO Box 248 Madison, SD 570420248	Paper Service	No	SPL_SL_11-852_Interested Parties
Dave	McNary		Hennepin County DES	417 N. Fifth Street Minneapolis, MN 55401	Paper Service	No	SPL_SL_11-852_Interested Parties
John	McWilliams	jmm@dairynet.com	Dairyland Power Cooperative	3200 East Ave SPO Box 817 La Crosse, WI 54601-7227	Electronic Service	No	SPL_SL_11-852_Interested Parties
Valerie	Means	meansv@moss-barnett.com	Moss-Barnett	4800 Wells Fargo Center 90 South Seventh Street Minneapolis, MN 55402	Electronic Service	No	SPL_SL_11-852_Interested Parties
Brian	Meloy	brian.meloy@leonard.com	Leonard, Street & Deinard	150 S 5th St Ste 2300 Minneapolis, MN 55402	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Peder	Mewis	Peder.Mewis@senate.mn	Senate Energy, Util and Telecom Committee	Room 322, State Capitol 75 Rev. Dr. Martin Luther King Jr. Blvd. St. Paul, MN 55155-1606	Paper Service	No	SPL_SL_11-852_Interested Parties
Carl	Michaud	carl.michaud@co.hennepin.mn.us	Hennepin County DES	417 N. Fifth Street #200 Minneapolis, MN 554013206	Paper Service	No	SPL_SL_11-852_Interested Parties
Stacy	Miller	stacy.miller@state.mn.us	Office of Energy Security	State Energy Office 85 7th Place East, Suite 500 St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
David	Moeller	dmoeller@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022093	Electronic Service	No	SPL_SL_11-852_Interested Parties
Andrew	Moratzka	apm@mcmlaw.com	Mackall, Crounse and Moore	1400 AT&T Tower 901 Marquette Ave Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Bryan	Morlock	bmorlock@otpco.com	Otter Tail Power Company	215 South Cascade Street Box 496 Fergus Falls, MN 565380496	Electronic Service	No	SPL_SL_11-852_Interested Parties
Carl	Nelson	cnelson@mncee.org	Center for Energy and Environment	212 3rd Ave N Ste 560 Minneapolis, MN 55401	Electronic Service	No	SPL_SL_11-852_Interested Parties
David W.	Niles		Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Thomas L.	Osteraas	tomosteraas@excelsiorenergy.com	Excelsior Energy	225 S 6th St Ste 1730 Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Greg	Oxley	N/A	MMUA	3025 Harbor Ln N Ste 400 Plymouth, MN 55447-5142	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Joshua	Pearson	N/A	enXco, Inc.	15445 Innovation Drive San Diego, CA 92128	Paper Service	No	SPL_SL_11-852_Interested Parties
Mary Beth	Peranteau	mperanteau@wheelerlaw.com	Wheeler Van Sickle & Anderson SC	Suite 801 25 West Main Street Madison, WI 537033398	Paper Service	No	SPL_SL_11-852_Interested Parties
Randall	Porter		Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Kent	Ragsdale	kentragsdale@alliantenergy.com	Alliant Energy-Interstate Power and Light Company	P.O. Box 351 200 First Street, SE Cedar Rapids, IA 524060351	Paper Service	No	SPL_SL_11-852_Interested Parties
John C.	Reinhardt		Laura A. Reinhardt	3552 26Th Avenue South Minneapolis, MN 55406	Paper Service	No	SPL_SL_11-852_Interested Parties
Kevin	Reuther		MN Center for Environmental Advocacy	Suite 206 26 East Exchange Street St. Paul, MN 551011667	Paper Service	No	SPL_SL_11-852_Interested Parties
Trudy	Richter	trichter@rranow.com	Minnesota Resource Recovery Assn.	477 Selby Avenue St. Paul, MN 55102	Paper Service	No	SPL_SL_11-852_Interested Parties
Amy	Rudolph	Amy.Rudolph@house.mn	House Env, Energy & Natural Res Committee	Rom 363, State Office Bldg. 100 Rev. Dr. Martin Luther King Jr. Blvd. St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Robert K.	Sahr	bsahr@eastriver.coop	East River Electric Power Cooperative	P.O. Box 227 Madison, SD 57042	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Raymond	Sand	rms@dairynet.com	Dairyland Power Cooperative	P.O. Box 8173200 East Avenue South LaCrosse, WI 546020817	Electronic Service	No	SPL_SL_11-852_Interested Parties
Richard	Savelkoul	rsavelkoul@felhaber.com	Felhaber, Larson, Fenlon & Vogt, P.A.	444 Cedar St Ste 2100 St. Paul, MN 55101-2136	Paper Service	No	SPL_SL_11-852_Interested Parties
Matthew J.	Schuerger P.E.		Energy Systems Consulting Services, LLC	P.O. Box 16129 St. Paul, MN 55116	Paper Service	No	SPL_SL_11-852_Interested Parties
Robert H.	Schulte	rhs@schulteassociates.com	Schulte Associates LLC	15347 Boulder Pointe Road Eden Prairie, MN 55347	Paper Service	No	SPL_SL_11-852_Interested Parties
Dean	Sedgwick		Itasca Power Company	PO Box 457 Spring Lake, MN 566800457	Paper Service	No	SPL_SL_11-852_Interested Parties
Mrg	Simon	mrgsimon@mrenergy.com	Missouri River Energy Services	3724 W. Avera Drive P.O. Box 88920 Sioux Falls, SD 571098920	Electronic Service	No	SPL_SL_11-852_Interested Parties
Beth H.	Soholt	bsoholt@windonthewires.org	Wind on the Wires	Suite 203 1619 Dayton Avenue St. Paul, MN 551046206	Paper Service	No	SPL_SL_11-852_Interested Parties
Dale	Sollom	dsollom@minnkota.com	Minnkota Power Cooperative, Inc.	PO Box 13200 Grand Forks, ND 58208-3200	Electronic Service	No	SPL_SL_11-852_Interested Parties
David	Strom	davids@mnfmi.org	Minnesota Free Market Institute	P.O. Box 120449 St. Paul, MN 55112	Paper Service	No	SPL_SL_11-852_Interested Parties
James M.	Strommen	jstrommen@kennedy-graven.com	Kennedy & Graven, Chartered	470 U.S. Bank Plaza 200 South Sixth Stree Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	SPL_SL_11-852_Interested Parties
Linda	Taylor	taylor@fresh-energy.org	Fresh Energy	408 St Peter St Suite 220 St. Paul, MN 55102-1125	Electronic Service	No	SPL_SL_11-852_Interested Parties
Steve	Thompson		Central Minnesota Municipal Power Agency	459 S Grove St Blue Earth, MN 56013-2629	Paper Service	No	SPL_SL_11-852_Interested Parties
SaGonna	Thompson	Regulatory.Records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	SPL_SL_11-852_Interested Parties
Douglas	Tiffany	tiffa002@umn.edu	University of Minnesota	316d Ruttan Hall 1994 Buford Avenue St. Paul, MN 55108	Paper Service	No	SPL_SL_11-852_Interested Parties
Pat	Treseler	pat.jcplaw@comcast.net	Paulson Law Office LTD	Suite 325 7301 Ohms Lane Edina, MN 55439	Electronic Service	No	SPL_SL_11-852_Interested Parties
Darryl	Tveitbakk		Northern Municipal Power Agency	123 Second Street West Thief River Falls, MN 56701	Paper Service	No	SPL_SL_11-852_Interested Parties
Roger	Warehime	warehimer@owatonnautilities.com	Owatonna Public Utilities	208 South WalnutPO Box 800 Owatonna, MN 55060	Paper Service	No	SPL_SL_11-852_Interested Parties
Paul	White	paul@projectresources.net	Project Resources Corp.	618 Second Avenue SE Minneapolis, MN 55414	Paper Service	No	SPL_SL_11-852_Interested Parties
Robyn	Woeste	robynwoeste@alliantenergy.com	Interstate Power and Light Company	P.O. Box 351 200 First St SE Cedar Rapids, IA 524060351	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Thomas J.	Zaremba		WHEELER, VAN SICKLE & ANDERSON	Suite 801 25 West Main Street Madison, WI 537033398	Paper Service	No	SPL_SL_11-852_Interested Parties

SOUTHERN MINNESOTA
MUNICIPAL POWER AGENCY

Bringing power to your life.

October 25, 2011

VIA E-Filing and U.S. Mail

Dr. Burl Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

RE: In the Matter of Utility Renewable Energy Cost Impact Reports Required by Minnesota Statutes Section 216B.1691, Subd. 2e, Docket No. E-999/CI-11-852

Dear Dr. Haar:

Enclosed for filing is the Renewable Energy Cost Impact Report for Southern Minnesota Municipal Power Agency, in regard to the above referenced docket.

This report is being submitted electronically and copies are being served to the attached service list. The Report is also being submitted by U.S. Mail to the Minnesota Senate and Minnesota House Energy Committees. Please contact me at 507.292.6440 or by email at lw.johnston@smmpa.org if you have any questions regarding this filing.

Regards,

Larry W. Johnston
Dir. of Corporate Development, Agency Relations and
Officer of Legislative & Regulatory Affairs

LWJ:dd:2k11011
Enclosures
cc: Service List

STATE OF MINNESOTA
BEFORE THE PUBLIC UTILITIES COMMISSION

Ellen Anderson	Chair
Phyllis Reha	Vice Chair
Dr. David C. Boyd	Commissioner
J. Dennis O'Brien	Commissioner
Betsy Wergin	Commissioner

In the Matter of Utility Renewable Energy Cost Impact Reports Required by Minnesota Statutes Section 216B.1691, Subd. 2e.	Docket No. E-999/CI-11-852

HISTORY

During the 2011 Legislative session, Minnesota Laws 2011, Chapter 97, Section 15, amended Minn. Stat. §216B.1691 [Renewable Energy Objectives] by adding a Subdivision 2e. This subdivision requires each electric utility subject to the statute to submit to the Minnesota Public Utilities Commission and to the Legislative Committees with primary jurisdiction over energy policy "a report containing an estimation of the rate impact of activities of the electric utility necessary to comply with Section 216B.1691. The initial report is to be submitted within 150 days of the effective date of the legislation. The reports must be updated and submitted in subsequent resource plans.

This filing is Southern Minnesota Municipal Power Agency's (SMMPA) initial filing in conjunction with the above referenced docket.

INTRODUCTION

Subsequent to the passage of the amended legislation, SMMPA participated in several meetings with the Minnesota Chamber of Commerce as well as conference calls with representatives of both consumer owned and investor owned utilities. The purpose of those meetings was to discuss what type of modeling was appropriate (to address the subject matter of the amendment) and what was possible to complete within the time-line of the initial filing period.

BACKGROUND

SMMPA is a wholesale generation and transmission company serving the needs of its eighteen member municipal utility owners. SMMPA member utilities are located throughout Minnesota and according to the U.S. Census Bureau, the eighteen Members had a combined population of approximately 240,610 in 2010. As of December 31, 2010, SMMPA's eighteen members provided electric service to approximately 110,300 residential, commercial, and industrial customers. SMMPA has developed a portfolio approach to meeting the Renewable Energy

Standard (RES). The goal of the portfolio approach is to utilize a variety of renewable resource types, sources and ownership structures. Table 1 below outlines those resources.

Table 1
SMMPA RES Resources

Renewable Facility	Location	Ownership Structure	Year Acquired	Capacity MW
Windmill Farms Turbines	Fairmont	SMMPA Owned	2003	1.9
Fairmont Wind Phase II	Fairmont	SMMPA Owned	2004/2005	3.3
Redwood Falls Phase II	Redwood Falls	SMMPA Owned	2004/2005	3.3
Member Biodiesel	Various SMMPA Members	Member Owned	1949 – 2009	150[1]
Olmsted County Waste to Energy Facility	Olmsted County (Rochester)	Purchase Power Agreement (PPA)	1987, with RECs after 2006[2]	2 - 7[3]
Redwood Falls Hydro Credits	Redwood Falls	REC Purchase from Member	2008 SMMPA[4] Purchase	.3
Mora Landfill Gas	Mora	SMMPA Owned	2011[5]	1.6
Renewable Energy Certificates (REC)	M-RETS, MN eligible projects	REC Purchase	2011 Purchase[6]	NA
Wapsipinicon PPA	SE MN	Purchase Power Agreement (PPA)	2009 PPA	100.5

There is a balance to be struck in developing resources to meet the RES. From a cost perspective, most utilities try to minimize developing resources too early. On the other hand, a cost-effective project with adequate transmission can have lengthy lead times, and resources must be available to meet the ramped thresholds of the RES. In 2008, SMMPA was recognized by the American Wind Industry Association (AWEA) in its Annual Wind Industry Report as having the 5th largest amount of wind power of all municipally-owned utilities in the nation. In 2009, the U.S. DOE ranked SMMPA 4th in the nation of all utilities with more than 100 MW of wind power for the estimated percentage of retail sales expected from wind power. With the estimated annual energy contribution of the resources listed in Table 1 above and taking into account SMMPA's load forecast and allowable renewable energy credit banking, we anticipate sufficient RES resources to meet the increasing targets of the statute through 2020.

---

[1] SMMPA members have approximately 150MW of diesel generation which use either diesel as their primary fuel or as a pilot fuel with natural gas. SMMPA began testing and promoting biodiesel in member generating units well before Minnesota considered requiring biodiesel content in diesel fuel. Today, biodiesel blends range as high as 20% of total fuel, but are blended to different levels throughout the year based upon biodiesel availability, price and need to blend to lower levels in colder periods to mitigate fuel congealing. Renewable generation is proportional to biodiesel fuel proportion.

[2] SMMPA originally began purchasing the energy output of the Waste to Energy Facility in 1987. With changes to the RES legislation, the PPA was renegotiated and in 2006, SMMPA began receiving renewable credit for those energy purchases.

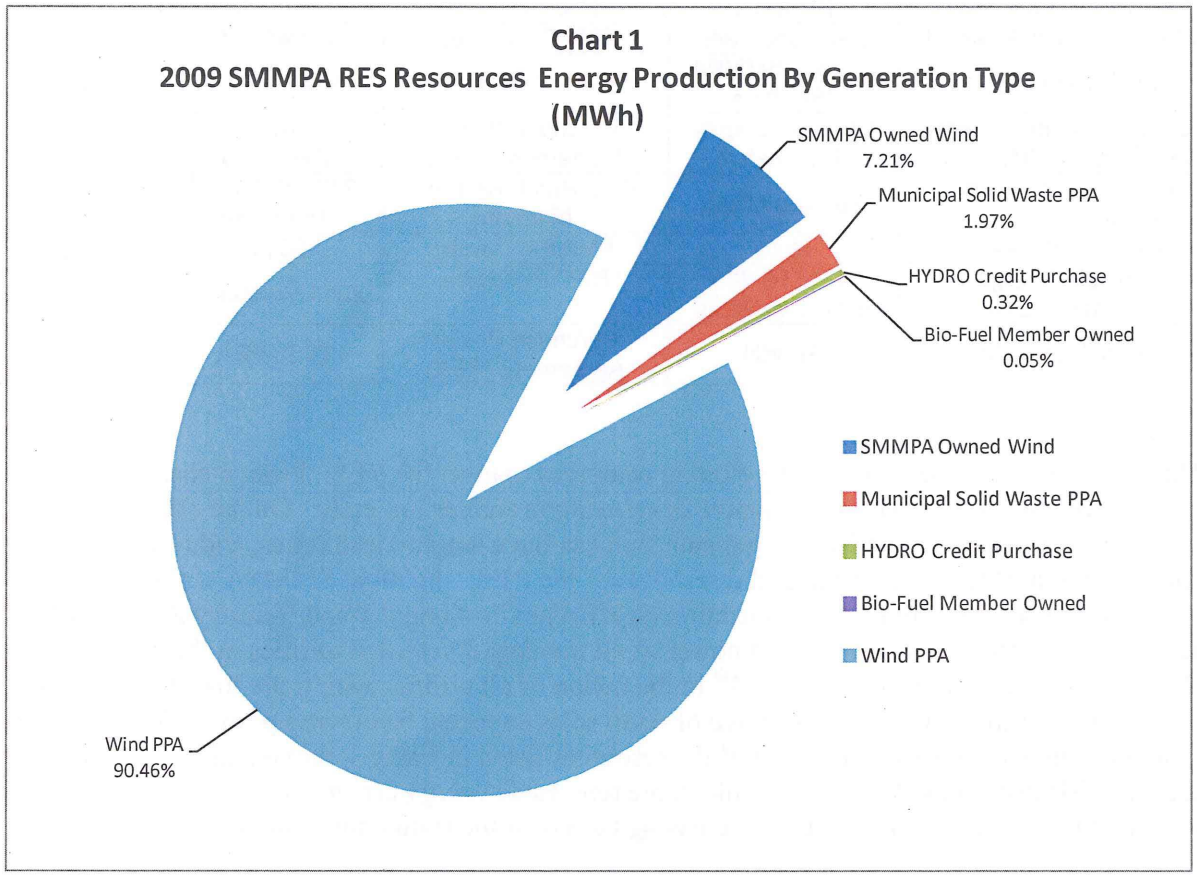
[3] The energy from the Waste To Energy Facility is used to serve the energy needs of the Olmsted County Campus. Residual energy and the associated RECs are purchased by SMMPA. The initial unit was 2MW. Olmsted County is in the process of bringing an additional 5 MW unit online.

[4] The Redwood Falls hydro unit was damaged in the fall flood of 2010. The unit will be refurbished but the operational date has not yet been established.

[5] Facility is anticipated to be generating in November of 2011.

[6] SMMPA purchased a total of 520,000 RECs from M-RETS based, MN eligible, hydro and waste-to-energy projects.

Table 1 provides an overview of the diversity of SMMPA's portfolio of RES resources. Chart 1 shows the relative energy production, in megawatt hours (MWh), from SMMPA's RES resources. Each MWh produced by a qualifying renewable resource equates to one renewable energy certificate (RECs) created in the Midwest Renewable Energy Tracking System (M-RETS). As can be seen from the chart, even with the diversity of generation types, the vast majority of SMMPA renewable generation in 2009 (over 97%) comes from wind.



Approximately 7% of that comes from SMMPA owned and operated wind turbines, with the balance (approximately 90%) coming from a wind PPA. Municipal solid waste accounts for approximately 2%, with hydro and bio-fuel each contributing less than 1% to the total.

RES COST METHODOLOGY

SMMPA has used two approaches to estimate the cost impact of the RES: 1) A market based assessment – comparing the costs associated with acquiring the RES resource relative to the Locational Marginal Price (LMP) received from the Midwest Independent System Operator (MISO) for the injection of that renewable generation, and 2) A modeling approach based upon SMMPA's current (2009) Integrated Resource Plan (IRP) filing.

Market Based Assessment.

As outlined in Chart 1, over 90% of SMMPA's renewable generation is attributable to a wind purchased power agreement. The market based assessment focuses on that resource. That resource was added to ensure that SMMPA would have sufficient resources to meet the step up in RES requirements in 2010 (7%) and beyond. The resource is located in the southeastern portion of Minnesota and was selected because of the significant wind regime, the economies of scale associated with the development of the project, and efforts to mitigate significant transmission difficulties associated with other projects evaluated. SMMPA began taking trial energy from that project in December of 2008, and the project went commercial in February of 2009. For confidentiality purposes, financial data will be discussed in the aggregate only. Information in the following charts represents the difference between the aggregate costs under the PPA and aggregate injection revenues received from MISO based upon LMP prices at the time of generation.

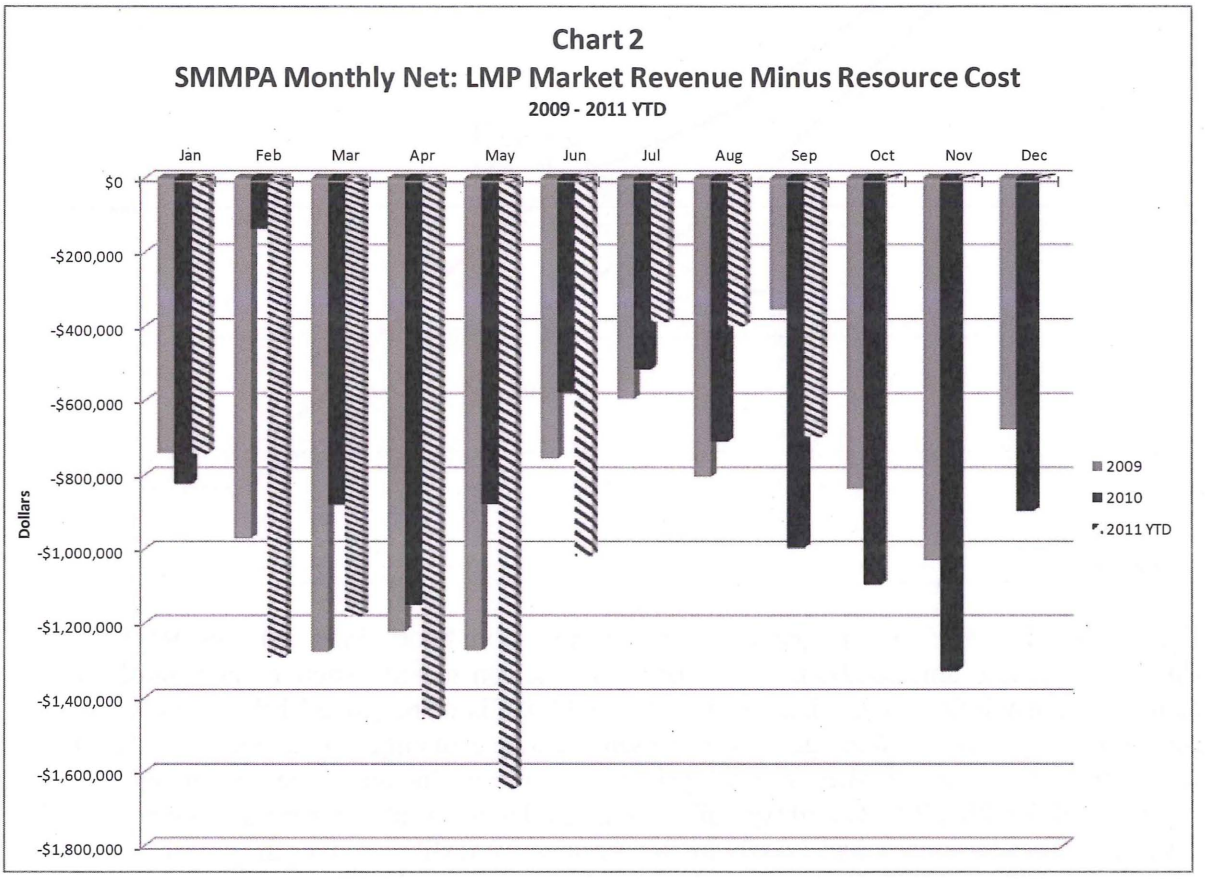
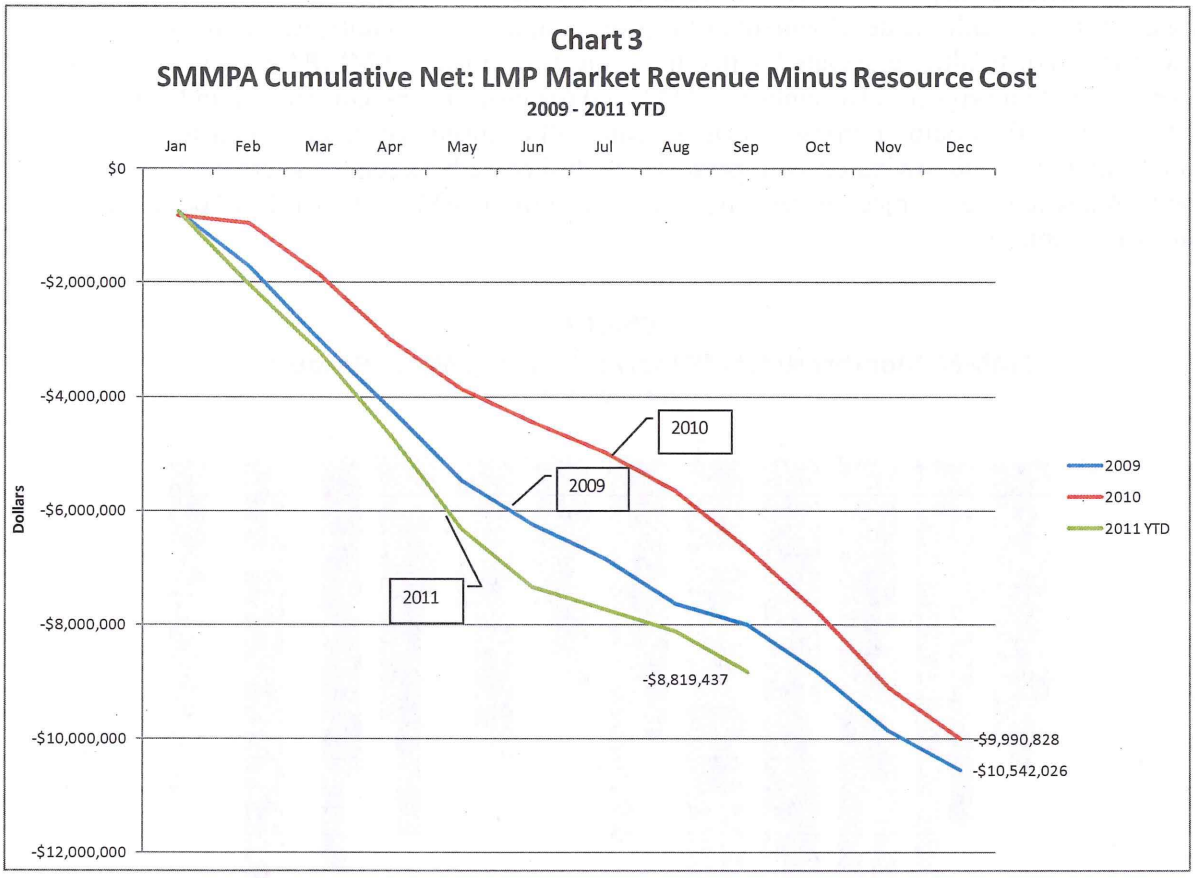


Chart 2 shows the net between the PPA cost and the MISO LMP market injection revenues received from January of 2009 through September of 2011. Since the project came on line in 2009, there has not been a month in which SMMPA received more in revenues from MISO injection than it pays in generation costs for the project. Monthly losses range from a low of approximately $136,000 in February of 2010 (a month in which there was an outage from a transformer issue for part of the month), to over $1.6 million in May of 2011.

Chart 3 provides the same information in a cumulative chart for 2009 through September of 2011. Loses in 2009 and 2010 were $10.5 and $9.99 million respectively. In 2011, the project is operating at slightly higher capacity factors and through September of 2011, the cumulative loss is $8.8 million, compared to September losses in 2009 and 2010 of $8.0 and $6.7 million respectively.



These charts show the net of project costs and revenues from hourly injections into MISO. However there are some additional costs that need to be considered. There remain significant periods of transmission congestion which causes MISO to issue negative LMPs to encourage generators to go off-line. Wind generation presents unique challenges in that they are typically seen as must-run units regardless of LMP prices. That means that during periods of negative LMPs, a utility with a PPA would typically be expected to incur all of the production costs of the developer plus additionally have to pay MISO the negative LMP to deliver the power – a particularly uneconomical event.

To mitigate that negative impact, SMMPA structured its PPA with the project developer to allow for economic curtailments. However, if SMMPA calls an economic curtailment, the developer loses production. Given that the Production Tax Credit (PTC) is awarded based upon production, if SMMPA calls for a curtailment, we must compensate the developer for the lost PTC. While over simplified, if the negative LMP exceeds the level where it is more economic

for SMMPA to simply make the developer whole on the PTC and the lost production, SMMPA calls a curtailment. Table 2 below provides the number of hours of negative LMPs, the number of hours in which SMMPA called a curtailment, and the additional costs to compensate the developer.

Table 2			
Year	**# Hours of MISO Negative LMP**	**# Hours of Curtailment**	**Additional SMMPA Cost $**
2009	606	81	$348,064
2010	328	28	$286,424
2011	445	85	$304,899[7]

When the costs shown in Chart 3 are combined with the additional costs for curtailment in Table 2, the costs for 2009, 2010 and 2011 YTD are $10.9, $10.3 and $9.1 million respectively.

Offsetting the above costs are two benefits the LMP energy market does not recognize, a small capacity benefit and renewable energy credit (REC) benefit. Historically, MISO offered 20% capacity credit for wind power projects in the 2009 time frame which in the case of this PPA, would mean approximately 20MW of capacity credit. Beginning in 2010, MISO began assessing capacity credit based upon the availability of the wind power projects at the time of the prior year's peak. As a result, in 2010 SMMPA received a capacity credit of 8MW, and in 2011, 16MW. If, on a go forward basis, SMMPA were to receive an average capacity value of 12MW, and capacity was valued in the $2.50/kW per month range, this capacity value would provide a value to SMMPA of approximately $360,000 annually.

While the Midwest Renewable Energy Tracking System (M-RETS) does not provide a trading function, renewable energy credits (RECs) are bought and sold in the M-RETS footprint and traded in other tracking systems nationwide. Wind REC values vary based upon vintage. If a current wind REC value of $0.60 is used and annual production is assumed to be 300,000 MWh, SMMPA's wind PPA provides an additional renewable energy credit value of $180,000 – a value that is not obtained through a MISO LMP market purchase.

From looking at 2009 through September of 2011, SMMPA has incurred costs of about $31 million above the market value of the energy. With current market conditions, and the consideration of capacity and REC value, the project has an annual cost to SMMPA members, and ultimately their customers, of approximately $10 to $11 million. This cost represents approximately 5% of SMMPA's annual revenue from its members.

Strengths and Weaknesses of the Market Based Approach.

Low LMP prices in MISO relative to the costs of the wind power PPA significantly affect project losses. Natural gas prices drive MISO LMP prices and lower natural gas prices drive LMP prices lower. The recession has also likely played a role in dampening demand, and therefore LMP prices.

[7] Hours and costs for 2011 are through September only.

However, there are several structural components which tend to depress LMP prices regardless of natural gas pricing. First, there remains significant transmission congestion on the system which depresses LMP prices and in those worst case scenarios, results in negative LMP prices from MISO as illustrated in Table 2 above. Second, the nature of wind power production in this region is diurnal, with significant production in off-peak periods. The result is twofold; 1) production is not well matched with load and as a result, the market prices offered in the off-peak period are lower and depress the overall revenue associated with the project, and 2) significant generation is during low-load or off-peak periods, adding to balancing and congestion problems which can result in low or negative LMPs.

The ***strength*** of the Market Based Assessment is the simple empirical nature of the process. Most frequently, concepts and projects are modeled with little thought given to after-the-fact monitoring and evaluation. While such an analysis doesn't cover all aspects of investment, undeniably there is a significant three-year cash flow shortfall which has to be covered from somewhere. In a not-for-profit utility, ultimately that recovery comes from the consumer owner.

The ***weakness*** of the market based assessment is that it is a relatively narrow snapshot. The approach is not capable of an assessment over the life of the asset. While market prices may be currently upside down with respect to project costs, will that always be so? Is there a crossover point where market prices exceed project costs? These questions can only be answered qualitatively by assessing the underlying drivers and estimating whether or not current conditions can be expected to continue into the foreseeable future:

- Will economic recovery increase demand and underlying LMPs?
- Will natural gas prices rise? Or as many recent articles suggest, are we entering a "golden age" of natural gas with sustained prices in the sub $4 range?
- Will shale gas and fracking face environmental challenges?
- Will exports of relatively cheap natural gas to a world market force prices up?
- Will enough transmission be built, and at what cost, to mitigate the need for congestion pricing with low and negative LMPs?
- Will LMP volatility increase or decrease as more wind resources are developed and operate during low load periods?
- Will there be a breakthrough in storage technologies (or rapid adoption of plug-in electric vehicles) which could provide on-peak value?

The market based assessment approach also cannot directly assess whether, if new generation resources were needed, there would also have been additional costs associated with the installation of conventional generation. This methodology would also need to address these questions qualitatively.

- Was the installation of the resource driven by increased load or added to meet regulatory considerations?
- Would there have been a potential fuel or carbon penalty associated with a conventional alternative?
- Is there renewable energy certificate (REC) value that needs to be considered?

- Would the conventional alternative better match load and could it have been sited and operated to mitigate LMP impacts?

IRP Modeling Assessment.

The statutory changes to 216B.1691call for utilities subject to the RES to incorporate RES cost analysis into future integrated resource plans. SMMPA's current resource plan was filed in 2009 and was accepted by the Minnesota Public Utilities Commission on January 6, 2011.

SMMPA uses the Electric Generation Expansion Analysis System (EGEAS) optimization model to determine the least-cost combination of generation resources to meet the load requirements of its member utilities. The EGEAS model optimizes a set of future generation resources based upon:

- SMMPA's energy and peak demand forecast.
- The operating costs and characteristics of SMMPA's existing resources.
- The capital and operations and maintenance (O&M) costs and operating characteristics of supply side resources. Included in that analysis are fossil fuel generating units, renewable generating units and market purchases.
- The capital and operations and maintenance (O&M) costs and operating characteristics of demand-side (efficiency and load management) options.
- Fuel prices for various fuel types and future escalations, and
- Externality and allowance costs for various emissions.

The final step in the optimization process is assessing the preferred plans' robustness by performing a series of sensitivities utilizing:

- Base, high and low natural gas prices.
- High and low externality costs.
- Base, high and low capital costs, and
- Base, high and low load forecasts.

SMMPA's next resource plan is due to be filed July 2013. As we work on that plan over the next year, we thought it might provide some insight into the RES cost analysis process to look at the 2009 – 2024 plan and compare the base planning case selected in that plan with a case in which no RES resources were included. Table 3 below shows a summary of SMMPA's resource planning case (Case 2) selected as the least cost case which did not include nuclear or coal resources. Cases including nuclear and coal were eliminated because of the nuclear moratorium and the limitations placed on coal by the Next Generation Energy Act of 2007. Additional information about SMMPA's resource plan can be found on the Minnesota Public Utility Commission web site at http://www.puc.state.mn.us/PUC/index.html and searching for Docket No. ET9/RP-09-536.

Table 3
EGEAS RESULTS

EGEAS Case Number	Case Description	W/O Ext PW Costs (Million $)	DSM Programs Accepted (Y/N)				Renewable Resources				Peaking Purchases (10 MW)	Quick Start Diesels (20 MW)	Spark Fired Gas Diesels (20 MW)	Combustion Turbine (50 MW)	Combined Cycle (50 MW)	IGCC Unit (50 MW)	Supercritical Pulverized Coal Unit (50 MW)	Nuclear Reactor (50 MW)
			CI Other	CI Lite	Res Other	Res Lite	Future Wind (100 MW)	enXco Wind (100.5 MW)	CBED (15 MW)	Landfill Gas (2.4 MW)								
Case 2	W/O Nuclear Reactor & Coal WITH CAIR & CAMR Rules Base Load Forecast Low Externality Costs Base Capital Costs Base Gas Price	$2,176	Y	Y	Y	Y	2019 2024	2009			44	2013	2013 2017 2022					

Case 2 includes wind resources sufficient to meet the RES targets (2009, 2019, 2024), diesel engines in 2013, 20 MW natural gas engine plants in 2013, 2017 and 2022, aggressive DSM, and some market peaking purchases. The present value of Case 2 for the 15 year planning horizon is $2.176 billion (shown in column 3).

Using the existing 2009 IRP model, an additional case (Case 133) was evaluated without including any of the wind resources for the RES. The results of that case are shown in Table 4 below. For that case, the model selected:

- All DSM – similar to Case 2.
- Diesel engines in 2013 – similar to Case 2.
- 3 - 20MW natural gas engine plants - beginning in 2013 similar to Case 2, but the second and third plants were needed earlier in 2014 and 2018.
- Peaking purchases, although a bit fewer (36 – 10 MW purchases throughout the period vs. 44 in Case 2).
- A 50 MW Combined Cycle natural gas plant - This plant was not selected in Case 2, but in the No-RES case, it was needed to supply additional energy in 2022.

Table 4
EGEAS RESULTS

EGEAS Case Number	Case Description	W/O Ext PW Costs (Million $)	DSM Programs Accepted (Y/N)				Renewable Resources				Peaking Purchases (10 MW)	Quick Start Diesels (20 MW)	Spark Fired Gas Diesels (20 MW)	Combustion Turbine (50 MW)	Combined Cycle (50 MW)	IGCC Unit (50 MW)	Supercritical Pulverized Coal Unit (50 MW)	Nuclear Reactor (50 MW)
			CI Other	CI Lite	Res Other	Res Lite	Future Wind (100 MW)	enXco Wind (100.5 MW)	CBED (15 MW)	Landfill Gas (2.4 MW)								
Case 133 NO RES	W/O Nuclear Reactor & Coal WITH CAIR & CAMR Rules Base Load Forecast Low Externality Costs Base Capital Costs Base Gas Price	$2,185	Y	Y	Y	Y					36	2013	2013 2014 2018		2022			

The present worth of the No-RES Case (Case 133) over the 15 year horizon, at $2.185 billion, was slightly higher ($9 million) than the RES Case. On an annualized basis, SMMPA's selected case with the RES resources included was projected to be approximately $900,000 less costly, providing a small cost savings to SMMPA.

We know, however, from the empirical evidence described in the Market Based Assessment section above, that at least in the initial three years of the project, a small savings has not been recognized. Instead, we have experienced three years of significant losses. The IRP model's prediction is not surprising given the model's fuel price assumptions. The model assumed $6.49 /mmBtu natural gas pricing in 2009 – escalating to over $10/mmBtu by the end of the study period. The high natural gas prices would have driven higher MISO market prices, a much different scenario than what we find with our current conditions.

Strengths and Weaknesses of the IRP Modeling Assessment.

The ***strength*** of the IRP modeling assessment is that the assessment makes every effort to evaluate all of the resources – their costs and their operating characteristics relative to each other, and it does so with consistent planning assumptions over a longer planning horizon.

The ***weakness*** of the IRP modeling assessment is that it is based upon a series of planning estimates and of course, forecasts. The past provides us with significant insight as to how our models will predict future events, but they are not infallible. What forecast isn't conditioned with the words "…the forecast is only as good as the assumptions." In modeling we need to accurately estimate future demand, technology cost, technology reliability, fuel prices, cost of capital, transmission availability, regulations and new technologies – all many years into the future. Looking back only three years in our rearview mirror, it would have been difficult to predict what we are experiencing with natural gas prices and MISO LMPs. In that respect, the underlying assumptions suffer from the same limitations discussed in our market assessment, including:

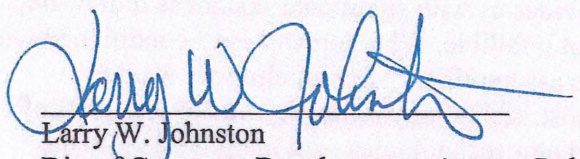
- Will economic recovery increase demand and underlying LMPs?
- Will natural gas prices rise? Or as many recent articles suggest, are we entering a "golden age" of natural gas with sustained prices in the sub $4 range?
- Will shale gas and fracking face environmental challenges?
- Will exports of relatively cheap natural gas to a world market force prices up?
- Will enough transmission be built, and at what cost, to mitigate the need for congestion pricing with low and negative LMPs?
- Will LMP volatility increase or decrease as more wind resources are developed and operate during low load periods?
- Will there be a breakthrough in storage technologies (or rapid adoption of plug-in electric vehicles) which could provide on-peak value?
- Will there be increasing externality costs for certain types of generation – when and how much?

Models are the best tools we have available, but they too have their limitations. SMMPA is currently in the process of implementing an hourly production cost model which will allow us to better model LMP prices and to better assess the relative costs between our conventional and renewable resources. SMMPA currently anticipates incorporating this market analysis into our 2013 IRP filing.

SMMPA is following this Docket with great interest and hopes to gain additional insight as to approaches which might be incorporated into our next IRP due in July of 2013.

Respectfully,

Southern Minnesota Municipal Power Agency

By: 

Larry W. Johnston
Dir. of Corporate Development, Agency Relations and
Officer of Legislative & Regulatory Affairs
SMMPA
500 1St Ave. S.W.
Rochester, MN 55902-3303

STATE OF MINNESOTA
BEFORE THE PUBLIC UTILITIES COMMISSION

Ellen Anderson	Chair
Phyllis Reha	Vice Chair
Dr. David C. Boyd	Commissioner
J. Dennis O'Brien	Commissioner
Betsy Wergin	Commissioner

In the Matter of Utility Renewable Energy Cost Impact Reports Required by Minnesota Statutes Section 216B.1691, Subd. 2e.

Docket No. E-999/CI-11-852

October 25, 2011 RES Compliance Report
By Southern Minnesota Municipal Power Agency

AFFIDAVIT OF SERVICE

STATE OF MINNESOTA)
) SS.
COUNTY OF OLMSTED)

I, Larry W. Johnston, being first duly sworn, depose and state that on the 25th day of October, 2011, I filed the attached Renewable Energy Cost Impact Report for Southern Minnesota Municipal Power Agency, by electronic filing with the Minnesota Public Utilities Commission, 121 7th Place East, Suite 350, Saint Paul, MN 55101-2147, served the attached service list, and the Minnesota Senate and Minnesota House of Representatives Energy Committees of the filing by United States first class mail at the City of Rochester, MN.

Larry W. Johnston

Subscribed and sworn to before me this
25 day of October, 2011

Naomi A. Goll

Naomi A. Goll
Notary Public

NAOMI A. GOLL
NOTARY PUBLIC - MINNESOTA
My Commission Expires Jan. 31, 2014

My Commission Expires: 1-31-2014

Stacy Miller
Office of Energy Security
State Energy Office
85 7th Place East, Suite 500
St. Paul MN 55101

Bob Eleff
Regulated Industries Cmte
100 Rev Dr Martin Luther King Jr Blvd
Room 600
St. Paul MN 55155

Amy Rudolph
House Env, Energy & Natural Res Commit
Rom 363, State Office Bldg.
100 Rev. Dr. Martin Luther King Jr. Blvd.
St. Paul MN 55155

Jon Brekke
Great River Energy
12300 Elm Creek Boulevard
Maple Grove MN 55369-4718

Douglas M. Carnival
McGrann Shea Anderson Carnival
Straugn & Lamb
800 Nicollet Mall, Suite 2600
Minneapolis MN 55402-7035

George Crocker
North American Water Office
PO Box 174
Lake Elmo MN 55042

Curt Dieren
L&O Power Cooperative
1302 South Union Street
PO Box 511
Rock Rapids IA 51246

Pam Fergen
Henepin County Government Center CAO
A2000
300 S. Sixth Street
Minneapolis MN 55487

Darrell Gerber
Clean Water Action Alliance of Minnesota
308 Hennepin Ave. E.
Minneapolis MN 55414

Bryan Gower
APX, Inc.
224 Airport Parkway
Suite 600
San Jose CA 95110

Burl W. Haar TS
Public Utilities Commission
Suite 350
121 7th Place East
St. Paul MN 55101-2147

John Fuller
MN Senate
75 Rev Dr Martin Luther King Jr Blvd
Room G-17
St. Paul MN 55155

David Aafedt
Winthrop & Weinstine, P.A.
Suite 3500, 225 South Sixth Street
Minneapolis MN 55402-4629

Mark B. Bring
Otter Tail Corporation
215 South Cascade Street
PO Box 496
Fergus Falls MN 56538-0496

Christopher Clark
Xcel Energy
5th Floor
414 Nicollet Mall
Minneapolis MN 55401-1993

Mark F. Dahlberg
Northwestern Wisconsin Electric Company
P.O. Box 9
104 South Pine Street
Grantsburg WI 54840-0009

Mike Eggl
Basin Electric Power Cooperative
1717 East Intertate Avenue
Bismarck ND 58503

Henry Fischer
East Central Energy
412 North Main
Braham MN 55006-0039

Ronald Giteck
Office of the Attorney General-RUD
Antitrust and Utilities Division
445 Minnesota Street, 1400 BRM Tower
St. Paul MN 55101

Michael R. Gravelle
Avant Energy Services
Suite 300
200 South Sixth Street
Minneapolis MN 55402

Julia Anderson TS
Office of the Attorney General-DOC
1400 BRM Tower
445 Minnesota St
St. Paul MN 55101-2131

Peder Mewis
Senate Energy, Util and Telecom Commit
Room 322, State Capitol
75 Rev. Dr. Martin Luther King Jr. Blvd.
St. Paul MN 55155-1606

William A. Blazar
Minnesota Chamber Of Commerce
Suite 1500
400 Robert Street North
St. Paul MN 55101

B. Andrew Brown
Dorsey & Whitney LLP
Suite 1500
50 South Sixth Street
Minneapolis MN 55402-1498

Kenneth A. Colburn
Symbiotic Strategies, LLC
26 Winton Road
Meredith NH 32535413

Jeffrey A. Daugherty
CenterPoint Energy
800 LaSalle Ave
Minneapolis MN 55402

Kristen Eide Tollefson
R-CURE
P O Box 129
Frontenac MN 55026

Edward Garvey
32 Lawton Street
St. Paul MN 55102

Elizabeth Goodpaster
MN Center for Environmental Advocacy
Suite 206
26 East Exchange Street
St. Paul MN 55101-1667

Ronald Harper
Basin Electric Power Cooperative
1717 East Interstate Avenue
Bismarck ND 58503-0564

Bill Heaney
IBEW Minnesota State Council
O. Box 65397
St. Paul MN 55155-0397

Annete Henkel
Minnesota Utility Investors
413 Wacouta Street
#230
St.Paul MN 55101

Ashley Houston
120 Fairway Rd
Chestnut Hill MA 24671850

Casey Jacobson
Basin Electric Power Cooperative
1717 East Interstate Avenue
Bismarck ND 58501

Amanda A James
Interstate Power & Light Company - Gas
200 First St SE
PO Box 351
Cedar Rapids IA 52401-0351

Larry Johnston
SMMPA
500 1st Ave SW
Rochester MN 55902-3303

Julie Ketchum
Waste Management
1901 Ames Drive
Burnsville MN 55306

Hank Koegel
enXco
10 Second St., NE, Ste 107
Minneapolis MN 55413

Nancy Lange
Izaak Walton League of America
Suite 202
1619 Dayton Avenue
St. Paul MN 55104

Robert S Lee
Mackall Crounse & Moore Law Offices
1400 AT&T Tower
901 Marquette Ave
Minneapolis MN 55402-2859

Deborah Fohr Levchak
Basin Electric Power Cooperative
1717 East Interstate Avenue
Bismarck ND 58503-0564

John Lindell TS
Office of the Attorney General-RUD
900 BRM Tower
445 Minnesota St
St. Paul MN 55101-2130

Mark Lindquist
The Minnesota Project
1026 North Washington Street
New Ulm MN 56073

Pam Marshall
Energy CENTS Coalition
823 7th St E
St. Paul MN 55106

Mike McDowell
Heartland Consumers Power District
PO Box 248
Madison SD 57042-0248

Dave McNary
Hennepin County DES
417 N. Fifth Street
Minneapolis MN 55401

Carl Michaud
Hennepin County DES
417 N. Fifth Street #200
Minneapolis MN 55401-3206

Andrew Moratzka
Mackall, Crounse and Moore
1400 AT&T Tower
901 Marquette Ave
Minneapolis MN 55402

David W. Niles
Avant Energy Services
Suite 300
200 South Sixth Street
Minneapolis MN 55402

Thomas L. Osteraas
Excelsior Energy
225 S 6th St Ste 1730
Minneapolis MN 55402

Greg Oxley
MMUA
3025 Harbor Ln N Ste 400
Plymouth MN 55447-5142

Joshua Pearson
enXco, Inc.
15445 Innovation Drive
San Diego CA 92128

Mary Beth Peranteau
Wheeler Van Sickle & Anderson SC
Suite 801
25 West Main Street
Madison WI 53703-3398

Randall Porter
Avant Energy Services
Suite 300
200 South Sixth Street
Minneapolis MN 55402

Kent Ragsdale
Alliant Energy-Interstate Power and Light
P.O. Box 351
200 First Street, SE
Cedar Rapids IA 52406-0351

John C. Reinhardt
Laura A. Reinhardt
3552 26Th Avenue South
Minneapolis MN 55406

Kevin Reuther
MN Center for Environmental Advocacy
Suite 206
26 East Exchange Street
St. Paul MN 55101-1667

Trudy Richter
Minnesota Resource Recovery Assn.
7 Selby Avenue
St. Paul MN 55102

Richard Savelkoul
Felhaber, Larson, Fenlon & Vogt, P.A.
444 Cedar St Ste 2100
St. Paul MN 55101-2136

Matthew J. Schuerger P.E.
Energy Systems Consulting Services, LLC
P.O. Box 16129
St. Paul MN 55116

Robert H. Schulte
Schulte Associates LLC
15347 Boulder Pointe Road
Eden Prairie MN 55347

Dean Sedgwick
Itasca Power Company
PO Box 457
Spring Lake MN 56680-0457

Beth H. Soholt
Wind on the Wires
Suite 203
1619 Dayton Avenue
St. Paul MN 55104-6206

David Strom
Minnesota Free Market Institute
P.O. Box 120449
St. Paul MN 55112

James M. Strommen
Kennedy & Graven, Chartered
470 U.S. Bank Plaza
200 South Sixth Street
Minneapolis MN 55402

Steve Thompson
Central Minnesota Municipal Power Agen
459 S Grove St
Blue Earth MN 56013-2629

Douglas Tiffany
University of Minnesota
316d Ruttan Hall
1994 Buford Avenue
St. Paul MN 55108

Darryl Tveitbakk
Northern Municipal Power Agency
123 Second Street West
Thief River Falls MN 56701

Roger Warehime
Owatonna Public Utilities
208 South WalnutPO Box 800
Owatonna MN 55060

Paul White
Project Resources Corp.
618 Second Avenue SE
Minneapolis MN 55414

Robyn Woeste
Interstate Power and Light Company
P.O. Box 351
200 First St SE
Cedar Rapids IA 52406-0351

Thomas J. Zaremba
WHEELER, VAN SICKLE & ANDERSON
Suite 801
25 West Main Street
Madison WI 53703-3398

Xcel Energy®

414 Nicollet Mall
Minneapolis, Minnesota 55401-1993

October 25, 2011

- Via Electronic Filing -

Dr. Burl W. Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, Minnesota 55101

Representative Denny McNamara
Chair, Environment, Energy and Natural Resources Committee
375 State Office Building
100 Rev. Martin Luther King Jr. Blvd.
St. Paul, MN 55155-1206

Representative Tom Hackbarth
Chair, Energy Subcommittee
409 State Office Building
100 Rev. Martin Luther King Jr. Blvd.
St. Paul, MN 55155-1206

Senator Julie Rosen
Chair, Energy Committee
322 State Capitol
75 Rev. Martin Luther King Jr. Blvd.
St. Paul, MN 55155-1606

RE: RATE IMPACT REPORT
IN THE MATTER OF UTILITY RENEWABLE ENERGY COST IMPACT REPORTS
DOCKET NO. E-999/CI-11-852

Dear Dr. Haar:

Northern States Power Company a Minnesota corporation ("Xcel Energy" or the "Company") submits our Renewable Energy Rate Impact report to the Minnesota Public Utilities Commission ("Commission") pursuant to Minn. Stat. § 216B.1691, subd. 2e.

The attached filing comports with the Commission's updated filing instructions issued on October 17, 2011.

Copies of this filing have been served on those parties on the attached service list to include the legislative committees with primary jurisdiction over energy policy. Please contact Sara Cardwell at sara.j.cardwell@xcelenergy.com or (612) 330-7975 if you have any questions regarding this filing.

Sincerely,

/S/

SARA CARDWELL
MANAGER, REGULATORY ADMINISTRATION
REGULATORY AFFAIRS

Enclosures
c: Service List

XCEL ENERGY'S RENEWABLE ENERGY STANDARD RATE IMPACT REPORT
Minnesota Public Utilities Commission Docket No. E999/CI-11-852

Northern States Power Company a Minnesota corporation ("Xcel Energy" or the "Company") is pleased to submit the following report addressing the rate impacts of compliance with the Minnesota Renewable Energy Standard ("RES").[1] While we have provided information on the rate impacts of the RES in both our 2007 and 2010 Resource Plans, the preparation of this report has created an opportunity to review the impacts in greater detail. Our primary conclusions detailed in the report include:

- During the 2008/2009 time frame, energy prices were about 0.7% lower with the wind resources that were part of our system than prices would have been without them. During this same period, biomass resources were slightly more expensive but still not significantly higher than non-renewables.
- We project that customers will pay approximately 1.4% more for energy over the next 15 years as the result of complying with the RES. Two key assumptions drive this result: 1.) the Wind Energy Production Tax Credit ("PTC") expires in 2013, and 2.) the cost of natural gas for generation remains low as currently forecasted. If the PTC is extended through 2025, rate impact of renewables is reduced to 0.7%.
- While the results show renewables to be slightly more expensive over the planning period, the differences do not appear significant. Changes in comparative factors, such as the cost of fuel, could result in renewables being less expensive than non-renewable alternatives.

The Company addresses in this report: 1) the history of the RES and our investment in renewables; 2) the methodology we applied to determine the rate impacts of the RES; and 3) our study results.

[1] Minn. Stat. § 216B.1691, subd. 2e (2011).

I. HISTORY OF THE RES AND COMPANY COMPLIANCE

In 2007, the Minnesota State Legislature passed comprehensive energy legislation that, among other things, directed each investor-owned, municipal and cooperative electric utility to obtain a certain percentage of their energy from renewable fuels. Minn. Stat. § 216B.1691 lays out the requirements for this RES, including the eligible technologies, the percentage of retail sales that must come from renewables and the conditions under which the Minnesota Public Utilities Commission ("Commission") can delay implementation of the RES.

Xcel Energy has a long history of acquiring and operating renewable resources. Like many utilities, throughout the 20th century the Company developed a number of smaller hydroelectric projects on rivers in Minnesota and western Wisconsin. In the 1980's, we converted two of our older coal plants to utilize refuse-derived fuel, and constructed transmission to take advantage of abundant hydroelectric power from Manitoba Hydro in Canada.

Our first foray into large-scale wind development came in 1992, when as part of our first Resource Plan we proposed to construct up to 100 MW of utility scale wind in our service territory. As our first 25 MW of wind energy came on line in 1994 in Lake Benton, MN, the legislature was addressing another important energy question: whether to allow the Company to store spent nuclear fuel in dry casks at the Prairie Island nuclear generating plant. As part of the legislation that authorized dry cask storage, the Company was required to acquire 425 MW of wind energy generated within the state of Minnesota, with an additional 400 MW to be ordered by the Commission should they determine that wind was a least-cost resource.[2] The wind mandate included the 25 MW that the Company had recently developed. In addition, the Company was

[2] Minn. Stat. Section 216B.2423 (2010)

required to install 125 MW of biomass generation.[3] This requirement was later reduced to 110 MW.

In 2003, as a result of legislation to authorize additional dry cask storage, the Company was instructed to acquire another 300 MW of wind.[4] In the same legislation, the fledgling Renewable Energy Objective ("REO") for utilities in Minnesota became a mandate for Xcel Energy. This objective required the Company to obtain one percent of energy from renewables by 2005 and increase our energy from renewables to 10% by 2015. The energy generated by the prior mandates was specifically excluded from eligibility to meet the REO.

Xcel Energy worked diligently to acquire the renewables prescribed. By 2007, we had 1075 MW of wind and 111 MW of biomass under contract[5]. The RES allowed the Company to include the investments made to comply with the previous mandates, but set the RES higher for Xcel Energy than for other utilities. As a result, Xcel Energy's RES requirement is to obtain 30% of retail sales from renewable energy by 2020. In addition, we must meet interim milestones as follows:

2010 - 15 percent
2012 - 18 percent
2016 - 25 percent

In 2010, Xcel Energy generated or purchased 13%[6] of our retail sales from renewable resources eligible for compliance with our renewable portfolio

[3] Minn. Stat. Section 216B.2424, Subd.5
[4] 83rd Legislature, 2003, 1st Special Session, Chapter 11, Article 1.
[5] A portion of the renewable capacity acquired for these early renewable mandates was from contracts that were silent on REC ownership. The capacity from the contracts in which the ownership of the RECs was assigned to the generator owners or that was later assigned to the generator owners is included in these figures. However, these projects are not included in Table 1 since they are no longer eligible for RES compliance. Windsource resources are also not included in Table 1.
[6] This does not include the Manitoba Hydro contract as this contract is not eligible for compliance in any of the states we serve. This value also excludes Windsource resources and contracts that are silent on REC ownership where the Commission order granted REC ownership to the generator.

standards and retired a combination of banked RECs and calendar year RECs to comply with the 15% RES requirement. These RECs were generated from a portfolio which consisted of the following commercially operational resources:

Table 1: 2010 Renewable Resources

Eligible Technology	**Nameplate Capacity (MW)**
Owned Wind	301.5
PPA Wind	1,058
Biomass	164
RDF and Landfill Gas	94
Small Hydro	277
Solar (AC)	3

In addition, we have signed contracts for an additional 478 MW of wind that is expected to be on line by the end of 2012, and are in negotiations for an additional 150 MW.

Since 1992, Xcel Energy has procured most of our renewable resources through competitive bidding or other competitive processes. Each contract or owned resource has been submitted to the Commission for individual approval, and those filings have included information on the costs and other characteristics of the project as compared to alternatives. Our RES compliance strategy has been carried out with careful attention to the cost of renewable resources as well as our other requirements under Minnesota law and Commission Orders. In the future we plan to continue with these processes to ensure that our compliance with the RES is prudent.

II. RES RATE IMPACT METHODOLOGY

A. Calculation of Rate Impacts

As noted above, Minn. Stat. §216B.1691 lays out the requirements and implementation of the RES. Subdivision 2b lists issues that the Commission must consider when deciding whether it should modify or the delay the standard. These conditions include:

> (1) the impact of implementing the standard on its customers' utility costs, including the economic and competitive pressure on the utility's customers;
> (2) the effects of implementing the standard on the reliability of the electric system;
> (3) technical advances or technical concerns;
> (4) delays in acquiring sites or routes due to rejection or delays of necessary siting or other permitting approvals;
> (5) delays, cancellations, or nondelivery of necessary equipment for construction or commercial operation of an eligible energy technology facility;
> (6) transmission constraints preventing delivery of service; and
> (7) other statutory obligations imposed on the commission or a utility.

The statute further states that the Commission may only modify the standard under clauses (1) to (3) if it finds that implementation would cause significant rate impact, requires significant measures to address reliability, or raises significant technical issues. The rate impact report required in Subdivision 2e of the statute is designed to provide the Commission and other interested parties information regarding the rate impact of implementing the RES.

A rate impact is defined as the financial effect on utility rates of implementing a particular business or policy decision. For the purpose of this study, we calculated the rate impact using two steps. First, we determined the difference between the costs of implementing and not implementing the RES. Next, we determined the cost difference on a cents per kWh basis by dividing the costs by total retail sales. Because utility rates are presumed to be cost-based, the cost difference translates directly into a price impact, or rate difference. The rate impact can be expressed as an absolute number or a percentage change.

Xcel Energy develops resource plans with a goal to minimize the impact of the plans on customer rates. When faced with a decision between two resources, we analyze the options to determine, among other things, which option has the lowest cost. A rate impact is not simply the increase in current rates as a result of acquiring a new resource. If a resource need exists, the rate impact is the difference between the cost of the proposed resource and the cost of the alternative resource the Company would acquire instead. For example, we could consider filling a resource need with a combustion turbine or a combined cycle facility. The rate impact would be the difference between the annualized costs of those two options.

In developing this report, Xcel Energy is providing data on our estimate of rate impacts as a result of implementing the RES as laid out in Minn. Stat. § 216B.1691. In so doing, we do not believe the impact is significant. While cost is an important element in determining our resource selections, it is only one of many considerations. There are a number of reasons why an electric utility may choose and the Commission may approve a more expensive resource over a less expensive one. For example, the higher cost resource may be more reliable than another resource, or it could it could have lower risk with respect to factors like fuel cost volatility.

The rate impacts contained in this report are estimates and are highly dependent on the assumptions that we make about the costs of wind and

alternative resources and fuels. The economic downturn as well as a sharp reduction in natural gas prices reduced loads, increased excess capacity and significantly reduced the cost of natural gas generation. Wind projects that were demonstrated to be cost effective at the time they were acquired look less so in the current market place. However, wind costs also experienced a price drop in 2011, bringing them closer to parity with natural gas. As the relationship between these costs change over time, so will the impact of complying with the RES.

B. Transmission Costs

The forward looking analysis of rate impacts provides us mainly with information regarding the differences between the costs of capacity and energy with and without the RES, including costs for interconnection and wind integration. Most new non-renewable generating resources also require additions or upgrades to the transmission system.

Typically, we do not model transmission system costs in our long-range resource plans. Transmission needs are highly location specific and cannot be determined without a series of complex studies analyzing the impact of a specific generating resource connecting at a specific point on the system. Long term resource plans use generic resource additions to develop future expansion plans, and the type of information needed to estimate transmission costs is not available. Transmission cost analysis is used in proceedings where we are working with particular projects to fill an identified need. In these cases, the alternatives are known and the specific transmission system costs can be evaluated and compared along with other project costs.

It is possible that the transmission resources needed to integrate wind energy into our system will be more expensive than transmission resources needed to deliver energy from conventional generating resources. The best wind

resources are located well outside of our major load centers, and in areas that do not have a high demand for electricity.

Transmission lines serve many purposes. Major new transmission lines can create additional capacity for a number of future generating projects, relieve congestion on the rest of the system and provide additional reliability benefits. New transmission lines have many beneficiaries, which makes it difficult to allocate their costs. As a result, we can only provide a rough estimate for costs of transmission needed to meet the RES.

The amount and type of transmission needed to move large quantities of wind to electric utility customers within Minnesota has been studied in other forums. In particular, CapX2020, a joint effort by several Minnesota utilities, has studied and identified a number of lines that will be needed to enhance the reliability of the system to deliver energy to load centers including the wind energy necessary to meet the state's RES. The transmission facilities listed in the following chart were triggered or initiated in response to wind generation proposals. However, once in place, they are part of the integrated transmission network that provides multiple benefits to customers.

Table 2: Transmission Projects Implemented Predominately for Wind Resources

Project	In-Service Date	Total Costs(a)	Annual O&M Costs(b)
BRIGO (Buffalo Ridge Incremental Generation Outlet) - Expansion of the 825 MW Project	2010	$ 68,780,954	$ 19,480
RIGO (Region Incremental Generation Outlet) - Under MN 2010 RES (Pleasant Valley/Byron)	2012	$ 5,546,199	$ 8,400
RES 2010 Projects - Blue Lake-Wilmarth- Lakefield 345 kV uprate	2010	$ 3,072,335	$ 44,640
Brookings (c)	2015	$ 532,785,834	$ 77,600

Notes:
(a) Includes AFDC
(b) For Planning Purposes we assume costs of $300 to $500 per mile per year. Therefore we have used $400 in this analysis.
(c) This is the Company's portion of the costs of this shared line.

C. Timeframe of Analysis

In the summer of 2011, the Minnesota Chamber of Commerce hosted a series of meetings with electric utilities and other interested parties to discuss the Rate Impact Report. During those meetings, the Chamber indicated its interest in seeing RES rate impacts starting from the passage of the RES in 2007. As a group, we discussed the ability of utilities to provide this historical data. While some utilities may have had plans that discussed what they might have done absent the RES, for most of us, data for that period no longer exists in a form that can be easily modeled and analyzed.

Xcel Energy, for example, updates the version, costs and content of our resource planning model regularly. As such, it is difficult to go back and construct historic costs and alternatives. In addition, when the RES was passed, Xcel Energy had already been actively acquiring renewables for many years; some in response to previous mandates, some to meet REO obligations and some that were acquired as least-cost resources in our 1999 and 2001 All-

Source Bid Processes. To the extent that these renewables are eligible energy technologies under the statute, they all qualify toward meeting Xcel Energy's RES obligations.

In contrast, in our forward-looking view we can compare our proposed renewable energy plan to an alternative plan that does not include RES compliance. In our 2010 Resource Plan (Docket No. E002/RP-10-825), we anticipated that the cost of implementing the standard may be important in the future. We developed a baseline "no new renewables" case that shows a "preferred" expansion plan if we did not install any more renewable energy to meet our RES requirements. As we model our requirements into the future, this expansion plan can be used as a reference point to examine the difference between plans that meet the RES and plans that do not.

In this report we provide two distinctly different views of rate impacts. We provide a retrospective view in which we estimate the actual impact of renewables on our system during 2008 and 2009. We then provide a prospective view of future rate impacts of ongoing compliance with RES requirements that, like any longer term forecast, relies heavily on several assumptions of what the future will be like in our industry.

III. RES RATE IMPACT: STUDY RESULTS

A. Historic Rate Impacts

While it is difficult to determine what Xcel Energy would have done absent the passage of the RES and prior renewable energy policies, the market is a potential proxy for an alternative cost of incremental resources added to the system for the years 2008 and 2009. Minnesota utilities operate in the Midwest Independent System Operator ("MISO") market, which maintains historical records of hourly market prices at each of its nodes. For the historic period, we are presenting data that compares the total annual cost of our renewable

portfolio with the market cost of the same amount of capacity and energy in the MISO market. Dividing the difference between these costs by annual retail sales provides an estimate of the cost differential between the renewables on our system and the market price.

While we recognize that this is an imperfect estimate of the historic rate impact of renewables, we believe that it is a reasonable comparison for this period. Without the energy from our renewable portfolio, we would have to obtain energy from other sources: increased production from our other facilities, new resources, and short- or long-term purchases. The market price incorporates hourly information on the costs of resources that are available to the system, and approximates the cost of the resources that would replace our renewable portfolio.

For years 2008 and 2009 we used the actual costs of our renewable energy resources, as determined by paid invoices for contracted energy or annual revenue requirements for owned facilities. We compared these costs with the monthly average locational marginal prices at the Minnesota Hub[7]. For purposes of this analysis, we are providing a breakdown of the various types of resources that make up our renewable portfolio. The historical view does not add any costs for carbon or transmission investment. The results of our analysis are shown in Table 2.

Table 3: Rate Impact of Renewable Portfolio 2008-2009 As Compared to MISO Average Annual LMP

Renewable Resource	2008	2009
Wind	-1.21%	1.09%
Biomass	0.56%	1.16%
Owned RDF	0.28%	0.67%
Owned Hydro	-0.42%	0.06%

[7] The MISO Minnesota Hub comprises approximately 170 nodes in and around the Twin Cities.

Our wind acquisitions are shown to have been cost effective in 2008 and 2009, with a cumulative benefit over the two years of approximately 0.7% less than the market prices, even given the fundamental market shift in 2009. Our biomass acquisitions are slightly higher than market. The biomass does not include costs for the St. Paul Cogeneration project, as pursuant to Commission Order the RECs from that project belong to the project owner.[8]

B. Renewable Expansion Plan

The Minnesota RES is a long term commitment to acquire a portfolio of renewable energy for our customers. For the most part, we have signed long-term contracts or invested in assets to meet our requirements. If we had not invested in renewables, we would instead have acquired long-term non-renewable resources to meet our customers' needs. We believe that a good faith estimate of the rate impacts of these long-term investments also requires a long term, system view.

Xcel Energy's system consists of over 10,000 MW of generation with various fuel types and generation characteristics. As our customers' need for energy varies over time, different units are started, ramped up or down, or taken off-line to create an economic mix of energy for each demand level. When we add new resources to our generation portfolio, the addition results in changes in the way the entire system operates. For example, a new, efficient natural gas combined cycle plant may result in less operation of our combustion turbine facilities. Similarly, a wind contract that requires we take or pay for all energy generated may require us to turn down other facilities when demand is lower and wind generation is high.

A long-term view of the operation of our system with and without the RES captures not just the direct costs of RES resources and their alternatives, but

[8] Commission Order dated June 2, 2011 in Docket No. E002/M-08-440.

also the costs of the changes in our system dispatch as a result of the different resource mixes. A system view captures all of the cost differences that result from implementing the RES, including, for example, any capacity additions necessary to meet our reliability requirements.

In order to estimate the rate impact of complying with the RES, we first need to define our compliance plan. As part of our overall RES requirements, we must generate 25% of our retail sales from wind energy by 2020[9]. To reach this level nearly all of our incremental renewable resources will need to be wind generation.

In our 2010 resource plan, Xcel Energy calculated the incremental resources needed to meet our RES requirements by 2020. We estimate that in addition to the projects we currently have on line or under contract, between 2011 and 2020 we will need approximately 1,100 MW of new wind generation to meet our 30% RES requirement and our 25% wind generation requirement.

While we have some flexibility as to when we need to bring new wind facilities on line, as a general rule, we believe that the market for renewable resources will develop in a more efficient manner if we spread our additions out evenly over the compliance window. This approach will allow for an orderly development of wind projects and provide for stability in the marketplace that will encourage the establishment of sustainable manufacturing and labor pools. For this reason, we developed a wind expansion plan that spreads the acquisition of 1,100 MW evenly over the remaining years until full compliance is achieved. The expansion plan used to model RES compliance is as follows:

[9] This requirement is included in the total 30% RES, and we are authorized to count a limited amount of solar energy (1%) towards this 25 percent. Minn. Stat. § 216B.1691, subd.2a(b) (2010).

Table 4: Xcel Energy's Proposed Wind Expansion Plan

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
MW	201*	200	100	100	100	100	100	100	100	200

*Xcel Energy's Nobles Wind Farm

It should also be noted that this renewable expansion plan represents the highest amount of wind energy that we would need to add to comply with the RES. In 2007, the Commission developed protocols for banking and trading renewable energy credits (RECs).[10] As part of these protocols, the Commission determined that RECs that were not needed to comply with the RES in the year they were generated could be banked and used for compliance at any time during the next four years. Xcel Energy has generated surplus RECs each year since 2008. Thus, we have a number of banked RECs that we can use for compliance with the RES instead of installing additional renewable generation. The REC bank provides us with flexibility to defer the installation of some new renewables and use banked RECs to comply with our RES obligations. We would likely choose to rely on banked RECs if we cannot find new renewable projects that are beneficial to acquire. Depending on future conditions, we may install less renewable energy than is proposed above, but would remain in compliance with the RES as long as banked credits are available and can be used to comply.

To provide additional information on our renewable energy portfolio and expansion plans, we have attached as Appendix A, a copy of our current Renewable Energy Plan, as filed with the Commission on August 2, 2010[11].

[10] Order Establishing Initial Protocols for Trading Renewable Energy Credits, Dockets E-999/CI-04-1616 and E-999/CI=03-869, issued December 18, 2007.

[11] We will be filing an update to the 2010 Resource Plan on December 1, 2011. We believe that at present, this Renewable Energy Plan still provides a good guideline to use in evaluating the rate impact as required by statute.

C. Developing the Long-Term Cost Impact of the RES

Xcel Energy uses the Strategist model for long-term planning. Strategist is used to estimate the cost of various resource expansion plans, to evaluate specific capacity alternatives and to measure the potential risks of new environmental legislation and other policy scenarios.

In the context of developing long term rate impacts, Strategist helps us determine the difference in costs between Resource Plans with and without RES compliance. In addition, it allows us to look at those plans under various assumptions and test the sensitivity of any cost differences to changes in timing, capital costs, fuel costs, environmental costs and other items that may affect the costs of the various plans.

The model consists of four primary components.

- *Load Module* that contains Xcel Energy's load forecast, load management, and conservation programs. This module produces long-range estimates of the Company's net energy requirements and peak capacity requirement.
- *Generation Module* that contains the operating costs and performance characteristics for our thermal units, renewable resources, and transactions. This module uses an hourly dispatch simulation to estimate how demand will be met and what the associated costs and emissions will be.
- *Capital Project Module* that estimates the revenue requirement for capital projects such as new generating resources. This module keeps track of rate base, depreciation, taxes, and rate of return for existing and future capital projects.
- *Expansion Planning Module* that uses a dynamic programming algorithm to derive the least cost expansion plan under the assumptions used.

> This module calculates the customer and societal costs for thousands of different resource combinations to arrive at the least cost plan.

For each expansion plan, Strategist calculates fuel consumption, fuel costs, O&M costs, emission rates, capital costs, and total revenue requirement. The total system costs are reported as the net present value of revenue requirements or "PVRR." This value is the sum of all operating, depreciation, return on rate base, and tax costs, less any revenues from sales discounted back to 2010 using the Company's most recently authorized weighted after-tax cost of capital of 7.56%.

By comparing the PVRRs of different resource plans, we can explore how the costs of complying with the RES compare with the costs of not installing additional renewable resources on our system. The PVRR differences represent the cost difference of the two plans over the long term. We can also use the model to look at the relationship between the plans' costs on an annual basis.

To determine the cost differences due to RES compliance, Xcel Energy developed two base models. One model fully implements the RES based on the expansion plan filed with our 2010 Resource Plan. The second model removes all of the incremental wind resources from our plan and allows the model to dispatch the system and add non-renewable resources as needed to meet the forecast of our customers' capacity and energy needs in a cost-efficient manner.

We used the Strategist model that we filed in our June 14, 2011 Black Dog Certificate of Need update filing in Docket E002/CN-11-184. The model uses our Spring 2011 forecast and has been updated to include current quarterly forecasts for fuel costs. It does not include costs for carbon dioxide or any other environmental externalities. The base model also assumes that the PTC

expires at the end of 2012 and is not renewed. A list of our modeling assumptions is attached to this report as Appendix B.

In addition to the base model, we also developed other scenarios to look at the impact of the RES under various conditions:

- **PTC Scenario**: instead of expiring at the end of 2012, the PTC is extended to 2020.
- **Carbon Dioxide Cost Scenario:** a charge of $17/ton of CO_2 is added for all carbon dioxide emissions starting in 2012.
- **High Gas Price Scenario**: gas prices are 20% higher than our base forecast.

The tables below demonstrate the overall cost of RES compliance from 2010-2025, and also provide an annual breakdown of the rate impact of RES compliance.[12]

Table 5: System Cost Differential
Net Present Value 2010-2025 ($000)

Scenario	No RES	RES	% Change
Base Case	$50,142,085	$50,842,891	1.40%
PTC Extended	$50,142,085	$50,514,235	0.74%
CO_2 Cost	$53,753,421	$53,975,089	0.41%
High Gas	$50,822,706	$51,318,994	0.98%

As shown above, all of the RES cases are slightly more costly than the No RES cases. When we assume that the PTC is extended, carbon is regulated or gas

[12] Minn. Stat. 216B.1691, subd 2e directs utilities to estimate the rate impact of the RES for "wholesale rates, and if the electric utility makes retail sales, the estimate shall also be for the impact on the electric utility's retail rates." Xcel Energy sells very little wholesale energy. As a result, we have not developed a standard wholesale rate. For purposes of this report, we are reporting retail rate impacts only.

cost is higher than currently forecasted, the cost of complying with the RES is reduced.

To develop the rate impacts, we used annual total system costs and retail sales to estimate a retail rate level for each year for the RES and No RES case, including estimates of transmission, distribution and general and administrative costs. We then calculated the annual cost differences between the RES and No RES cases and expressed them as a percentage increase or decrease of the No RES annual rate. In the table below, a positive number means that the RES rate was higher than the No RES rate, and a negative number means the RES rate is lower than the No RES rate.

Table 6: Estimated Annual RES Rate Impact
% Different from No RES Case

Scenario	2010	2011	2012	2013	2014	2015	2016	2017
Base	0.18%	1.06%	1.25%	1.82%	1.75%	1.48%	1.63%	1.50%
PTC Ext.	0.18%	1.06%	1.25%	1.65%	1.41%	1.00%	1.02%	0.75%
CO_2 cost	0.18%	1.06%	0.54%	0.69%	0.62%	0.36%	0.53%	0.34%
High Gas	0.18%	0.97%	1.04%	1.54%	1.43%	1.07%	1.22%	1.03%

Scenario	2018	2019	2020	2021	2022	2023	2024	2025
Base	1.54%	1.47%	1.66%	1.70%	1.93%	1.49%	1.23%	0.85%
PTC Ext.	0.66%	0.47%	0.42%	0.52%	0.75%	0.34%	0.11%	-0.24%
CO_2 cost	0.35%	0.23%	0.34%	0.40%	0.63%	0.25%	0.05%	-0.23%
High Gas	1.01%	0.92%	1.08%	1.06%	1.33%	0.84%	0.55%	0.19%

These results provide an annual breakdown of the total cost differentials shown above. In some years, the rate impact is higher than the overall cost difference, and in other years it is lower. Each of the cases show that the rate impact declines over time, as variable fuel resources become costlier while annual wind costs either remain stable or, in the case of owned projects, decline.

This analysis clearly shows the positive impact of a PTC extension beyond 2012. The PTC benefits reduce the rate impact and improve the cost effectiveness of wind relative to the current market estimates for natural gas generation. Xcel Energy would support an extension of the PTC, as it would allow us to comply with the RES at a lower cost to our customers.

CONCLUSION

With the exception of certain mandated resources, the renewable based resources that we have acquired to date have been cost effective. We have locked in our wind contracts at relatively stable prices and they provide a hedge for our customers when fuel prices and market prices are high.

As we look ahead to the additional facilities required to meet our RES, we estimate that the cost of RES compliance will be slightly higher than that of a plan that does not include additional renewables. The actual cost to meet the RES will depend on a number of variables: the cost of wind generation, the cost of natural gas generation and fuel, the growth rate for energy consumption and demand on our system and the existence of any other incentives or costs. For this reason, we plan to continue to analyze our renewable additions on a project by project basis, and will seek approval for each project as we propose to implement it. We will use our banked RECs as needed to reduce compliance costs, and will petition the Commission for modifications of the standard if we believe that new renewable additions will have a significant impact on our customers.

APPENDICES

Chapter 5. Renewable Energy

As part of our Resource Plan, we are pleased to submit this update to our Renewable Energy Plan, in compliance with Minn. Stat. § 216B.1691, subd. 10, and the Commission's June 19, 2009 order approving our previous Renewable Energy Plan,[1] outlining how we intend to secure the renewable energy resources needed to comply with the Minnesota renewable energy standard (RES) and the renewables policies of the other states we serve in the Upper Midwest. We submit this update to our Renewable Energy Plan both as a stand-alone report, and as a chapter embedded in our Resource Plan.

Overview

In this chapter, we review Xcel Energy's current renewable resources – wind, hydroelectric power, biomass and solar – and our plans for compliance with the renewable energy targets in the states in the Upper Midwest in which we operate. Situated within some of the best wind resources in the world, with access to cost-effective, reliable Canadian hydro resources directly to our north, our renewable energy portfolio provides multiple benefits to our rate payers, as an intrinsic part of our diverse and robust generation portfolio.

We currently have over 2,370 MW of installed renewable capacity (owned and contracted) serving the NSP system:

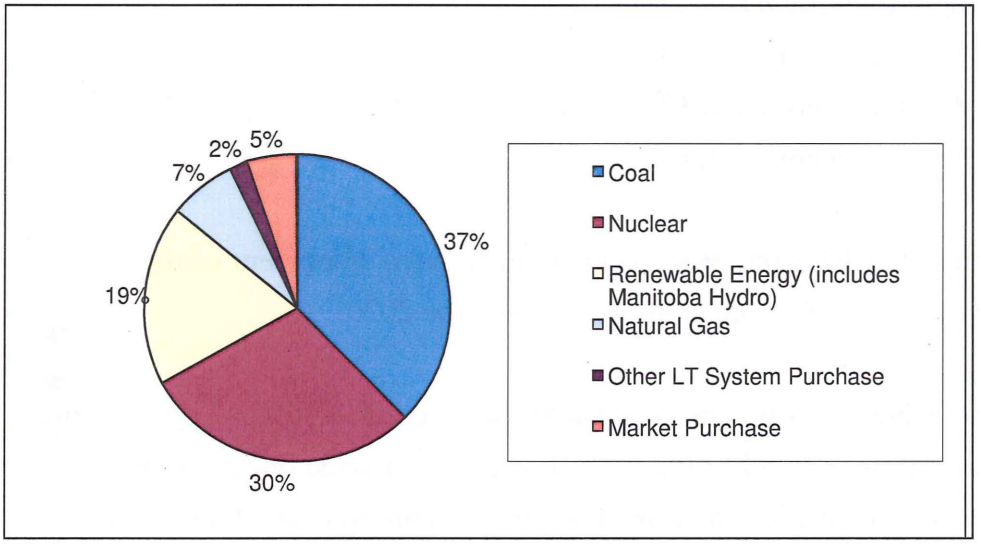
- 1,270 MW of wind generation
- 812.5 MW of hydro-electric power, including our supply arrangement with Manitoba Hydro
- 290 MW of biomass generation

In addition, we have just over 1 MW of solar energy on our system. When all of the energy from these resources is tallied, renewable energy accounts for 19% of the

[1] In the Matter of Northern States Power Company d/b/a Xcel Energy's Application for Approval of its Renewable Energy Plan, MPUC Docket No. E-002/M-07-1558.

energy provided to our customers across all of the NSP system (NSP-MN and NSP-WI) service territories in 2010, as shown in Figure 5.1.

Figure 5.1
Energy Mix for NSP System – 2010



State Renewable Energy Targets

Each of the five states in which we provide service in the Upper Midwest establishes a renewable energy target for Xcel Energy. Each of these targets is expressed as a specified percentage of the electricity sold in that state at retail to come from qualifying resources by a date certain:

- North Dakota and South Dakota each has a voluntary Renewable and Recycled Energy Objective which establishes a goal for each retail provider of electricity to have 10 percent renewable or recycled energy by 2015.[2]

[2] N.D. Cent. Code § 49-02-28 (2010) and S.D. Codified Laws § 49-34A-101 (2010). As defined in N.D. Cent. Code § 49-02-25, recycled energy means "systems producing electricity from currently unused waste heat resulting from combustion or other processes into electricity and which do not use an additional combustion process. The term does not include any system whose primary purpose is the generation of electricity unless the generation system consumes wellhead gas that would otherwise be flared, vented, or wasted." S.D. Codified Laws § 49-34A-94 (2010) contains a similar definition.

- Michigan has a RES that requires Xcel Energy to have 10 percent renewable energy by 2015.
- Wisconsin has a Renewable Portfolio Standard (RPS) that requires Xcel Energy to have approximately 12.9 percent renewable energy by 2015.
- Minnesota has a RES that requires Xcel Energy to have 30 percent by 2020, including interim targets of:
    - 15 percent by 2010
    - 18 percent by 2012
    - 25 percent by 2016.

In addition, Minnesota's RES requires Xcel Energy to have 25 percent of the electricity it provides at retail come from wind energy by 2020.[3]

We are currently generating sufficient renewable energy credits (RECs)[4] on an annual basis to ensure that approximately 14% of the energy we provide our customers comes from RES/REO eligible renewable resources.[5] This amount climbs to at least 19% by the end of 2012, assuming all of the projects we have under contract come on line as planned. Together with the REC bank we have accumulated due to our early actions to add renewable generation to our portfolio, we are well ahead of all of our renewable energy targets.

Our early actions to add renewable resources to our system provides for reduced environmental regulatory risk and a hedge against volatility in fuel markets. Perhaps most importantly to our ratepayers, we added these generation resources at a time when renewable generation, wind energy in particular, was a low cost resource relative to other alternatives.

---

[3] This requirement is included in the total 30% RES, and we are authorized to count a limited amount of solar energy towards this 25 percent. Minn. Stat. § 216B.1691, subd. 2a(b) (2010).

[4] RECs are the renewable energy attributes associated with each kilowatt-hour of renewable energy generation, and are the currency for compliance with state renewable targets. We retire RECs as necessary to comply with those renewable targets, and are allowed to "bank" RECs that are not yet needed for compliance for up to four years from the year in which the REC is generated.

[5] Under state law in Minnesota and Wisconsin, renewable energy from large hydroelectric facilities is not considered eligible to be counted toward the renewable energy requirements of those states. See Minn. Stat., section 216B.1691, and Wisc. Stat, section 196.378.

Current Renewable Resources

Wind

Xcel Energy began contracting for wind resources in 1993, pursuant to our 1991 Resource Plan requirement to develop at least 50 MW of wind energy by 1997. Since then, in response to various mandates, state programs and all-source bid selections, we now have 1,270 MW of wind operational on the NSP.[6]

Our first Company-owned wind project, the 100 MW Grand Meadows Wind Project in Mower County, Minnesota, became operational at the end of 2008. The other 1,170 MW of wind have been acquired through power purchase agreements (PPAs), in which the project is owned by an entity other than Xcel Energy, and we contract to purchase the energy generated by the project. These PPA projects range from projects that are smaller than 2 MW to the 205 MW Fenton project in Nobles and Murray Counties, Minnesota.

About 142.5 MW of these PPAs are with very small locally-owned projects that were developed under the Minnesota Renewable Energy Production Incentive (REPI) program. The Minnesota REPI program pays locally owned projects of 2 MW or less a production incentive of between 1 and 1.5 cents per for each kilowatt-hour produced for the first 10 years of operation. Payments are made from the Xcel Energy Renewable Development Fund. The program was entirely subscribed as of 2005.

Another 85.25 MW of these projects are Community-Based Energy Development (C-BED) wind projects. C-BED is the Minnesota program designed to replace the now-closed REPI program. Like REPI, the mission of C-BED is to promote local economic benefit from development of wind generation. We have issued three C-BED wind requests for proposals since 2007, in which we looked at hundreds of

[6] Of this 1,270 MW, approximately 1,218 MW is dedicated to complying with our renewable energy targets. The balance is allocated to our Windsource program, our voluntary green pricing program discussed further below.

projects and thousands of MWs of wind capacity. Of these many proposals, we selected 40 C-BED projects (about 860 MW), with which to negotiate PPAs. Ultimately, we signed PPAs with 26 C-BED projects (470 MW), and offered PPAs to another nine projects (292 MW). These nine projects, along with eight of the projects with which we had a signed PPA, did not go forward due to turbine availability, financing, or transmission interconnection issues. Seven projects have become operational, with 10 projects (about 240 MW) pending construction.

Table 5.1 on the following page provides an update of the status of these pending C-BED projects.

Table 5.1
Pending C-BED Wind Projects

Project	MW	Date PPA Executed	Date of MPUC Approval	Expected Commercial Operation Date
Grant	20	August 12, 2009	August 27, 2009	Late summer 2010
Winona	1.5	October 15, 2009	Dec 1, 2009	October 1, 2010
Community Wind North	30	May 28, 2010	Filed w/ MPUC June 30, 2010	March 31, 2012
Valley View	10	Sept 26, 2008	March 9, 2009	Dec 30, 2010
Ridgewind	25.3	Nov 3, 2008	January 2, 3009	October 31, 2010
Goodhue Wind South	39	October 20, 2009	April 28, 2010	Dec 31, 2011
Goodhue Wind North	39	October 20, 2009	April 28, 2010	Dec 31, 2011
Danielson	19.8	October 27, 2009	Dec 24, 2009	Dec 30, 2010
Adams	19.8	October 27, 2009	Dec 24, 2009	Dec 30, 2010
Big Blue	36	June 1, 2010	Filed w/ MPUC June 30, 2010	July 1, 2011

The balance of our wind generation portfolio, about 940 MW, consists of projects owned by Independent Power Producers (IPPs) who develop, own and operate generation facilities and sell the output to electric utilities.

In addition to these operational wind projects, we have about 590 MW of projects that we expect to add to our system by the end of 2011 or 2012. These projects include 351 MW of Xcel Energy owned wind projects:

- The 201 MW Nobles Wind Project in Nobles County, Minnesota, which will be operational by the end of 2010; and
- The 150 MW Merricourt Wind Project in McIntosh and Dickey Counties in North Dakota, is planned for completion by the end of 2011. Development work for the project is on-going. The project developer, enXco, is working to acquire major permits and approvals and working through environmental issues. It is anticipated that construction will start in May 2011.

If these projects and all of the aforementioned CBED projects that are under contract are completed, we will have acquired or contracted for about 1,860 MW of wind projects on the NSP system by the end of 2012. See Table 5.2 below.

Table 5.2
Wind Projects on the NSP System by 2012

Project Type	Known Wind Projects (end of 2012)	Percentage of Total
C-BED	327	18%
REPI	142.5	8%
Xcel	450	24%
IPP	940.5	50%
Total	1860	100%

Hydro

The Company owns 253 MW of hydroelectric generation in Minnesota and Wisconsin. In addition, Xcel Energy purchases 24 MW of small hydro from other parties, and significant generation from Manitoba Hydro that is sourced primarily from its fleet of hydroelectric facilities.

In June of 2010, we filed a petition for approval of a series of agreements with Manitoba Hydro for up to 850 MW (summer) system resources from its almost exclusively hydroelectric system. If approved, these agreements would become effective in 2015, when the first of the existing set of agreements with Manitoba Hydro is set to expire. This set of agreements will be more fully discussed later in this chapter.

Biomass

Our biomass generation resources include a wide variety of biomass resources. We receive landfill gas-fired generation from the Burnsville, Flying Cloud and Pine Bend landfills. Xcel Energy also contracts with St. Paul Cogen, Fibrominn, and Laurentian Energy Authority for biomass energy:

- St. Paul Cogen's waste wood-fired generator, which began operating in early 2003, produces 25 MW.
- Fibrominn, LLC produces 50 MW of biomass generation using poultry litter and went into commercial service in August 2007.
- The Laurentian Energy Authority, an LLC jointly owned by the cities of Hibbing and Virginia, produce 35 MW of energy in two plant facilities that attained commercial biomass operation on December 31, 2006.

Our biomass resources also include the existing wood-fired generation at two of the three units at our Bay Front plant, and refuse derived fuel (RDF)-fired generation from the Red Wing, Wilmarth and French Island plants. Each of these facilities is discussed below.

Bayfront. As noted above, we currently use biomass at two of the three units at this generation facility. We are exploring expanding our use of biomass at Bay Front through the reconfiguration of the third unit at that facility. Initially, the goal of the project was to install a biomass gasifier, and convert the plant's remaining coal-fired unit to a technology that will allow it to use 100 percent biomass. When the gasification project application was initially filed with our regulators in February 2009, the cost was estimated to be $58-$70 million based on the first phase of engineering studies. Following approval of the project by the Public Service Commission of Wisconsin in December 2009, we completed a more detailed engineering and design phase for the project. Those studies show that additional enhancements will be needed in order to maintain stable combustion using synthetic gas, and the cost is likely to be much higher than expected. As a result of the increased project scope, we have decided to review other alternatives for the Bay Front Unit #5 over the next six months.

Red Wing and Wilmarth. Both of these RDF plants are located south of the Twin Cities area. The Red Wing plant is located in Red Wing, Minnesota and the Wilmarth plant in Mankato, Minnesota. Both plants are 20 MW generating facilities.

These plants were built in the 1940s as coal-fired generating facilities. They were both converted in the late 1980's to burn RDF. The processed municipal solid waste provides a low-cost fuel alternative to generate electricity and reduces the amount of material going to landfills. Both plants employ scrubbers with fabric filter baghouses to meet their respective emissions permits. The scrubbers treat flue gas with water and hydrated lime, while the baghouses trap particulate by forcing flue gas streams through large filter bags. These systems are considered to be best available control technology ("BACT"), which allows energy production from Red Wing and Wilmarth to be counted toward the RES.

The RDF for both plants is produced at a resource recovery facility in Newport, Minnesota. The structure of the current RDF supply contract requires that we make a decision about the continued operation of these plants prior to June 30, 2011. In the

previous Resource Plan, we assumed that we would discontinue operation of the plants in 2012, but initiated a life extension study to assist in the determination of whether to continue to operate these plants beyond that date. That study did not identify any major issues for either of the facilities that would require major additional capital investment for operation through 2017. We are now assuming continued operation of these plants, pending successful resolution of RDF fuel supply contract discussions.

French Island Generating Plant. The French Island Generating Plant is located in La Crosse, Wisconsin, on the Mississippi and Black rivers. Units 1 and 2 were retrofitted with fluidized bed boilers, and use wood waste, railroad ties and RDF as primary fuels. Units 1 and 2 combined produce 21 MW. The current fuel supply contract for French Island Units 1 and 2 runs through 2023, which is also the end of book life for these units.

Solar

Although the solar resource in the NSP-MN/NSP-WI service territories is not nearly as good as in our Colorado, New Mexico, and Texas operations,[7] we have added just over a megawatt of solar electricity production to our NSP system in the past three years. Under our current programs, we expect this amount to grow over the next decade to approximately 20 MW of solar photovoltaics ("PV").

Absent large gains in PV productivity and additional reductions in the cost of PV systems, solar PV will likely not be a cost effective generation resource in the Upper Midwest for some time. However, our current strategic additions of solar energy will help us gain experience with the operation of solar technologies in this northern climate, explore various project sizes, ownership configurations and technologies and help build the solar industry in this region. This experience will stand our customers

[7] Capacity factors for solar PV in the southwestern US can be about 20% In Minnesota, capacity factors for solar PV are more likely to be in the 12% to 15% range. See, e.g. the Minnesota Solar Electric Rebate Program Report 2002-2008 which found that solar energy production among projects in the state's solar rebate program had an average capacity factor of 13.4%. Minnesota Office of Energy Security, April 8, 2009, at page 4. Capacity factor is the expected energy production of a generation facility divided by its total potential production.

in good stead if and when the cost and production efficiency of solar technologies evolves to the point where solar can be a cost effective resource in this region.

Solar generation is being added to our system currently through three programs:

- *Solar*Rewards.* Solar*Rewards is an energy conservation program that is available to Xcel Energy residential and commercial customers beginning March 2010. The program's goal is to increase the installation of solar photovoltaic (PV) systems and help Xcel Energy business and residential customers capture energy savings from their systems. At the current level of funding, the program could result in up to 6 MW of solar PV by 2012. The program was included in the Company's 2010-2012 Conservation Improvement Program ("CIP") Triennial Plan approved through the Office of Energy Security (OES) in Docket No. E,G002/CIP-09-198. Under Solar*Rewards, Xcel Energy is providing an incentive payment not to exceed $2.25 per watt to help offset solar PV system installation costs. The amount may change as solar project economics change or as other funds become available. The program is limited to one qualifying solar PV system no larger than 40 kW per business or residential customer building location. The average size of a residential system is expected to be approximately 4.5 kW. [8]
- *Solar grants and rebates through the Xcel Energy Renewable Development Fund.* In the past grant cycle, the Renewable Development Fund awarded over $8 million to support the development of solar projects totaling about 3.5 MW on the NSP system. In addition, state rebates funded through the RDF supported the development of nearly 800 kW in Minnesota in 2010. In the 2010 legislative session, the Renewable Development Fund was directed to allocate $21 million over the next five years to support Solar*Reward installations on the NSP system that use solar equipment manufactured in Minnesota.[9]

---

[8] The projected increase in solar PV through 2020 would primarily be through continued implementation of the Solar*Rewards program, and thus is contingent on continued approval of our regulators of that program and future customer enrollment.

[9] See Laws of Minnesota 2010, chapter 361, article 5, section 3.

- *Solar in Windsource.* The Commission has authorized us to add one-half to one MW of solar resources to the generation portfolio of the Windsource program (described below) in each of the next three years.[10] By including solar, customers will be able to expand their support of environmentally friendly electric generation to non-wind resources. We believe making this change to Windsource will increase the attractiveness of this successful voluntary program, already the largest voluntary renewable energy program in the country.

Windsource

We offer our customers an opportunity to purchase additional wind energy under a green pricing program to meet their electric needs. Xcel Energy began offering the Windsource program in March 2003. During the first year we sold almost 8,000 MWH of wind energy under this program to just over 5,500 customers. In 2009, we supplied almost 147,400 MWh to 23,500 customers. The Company has about 52 MW of wind generation dedicated to the program, and has certified a total of 89 MW so that as our Windsource needs grow, we have identified the resources necessary to meet customer expectations. As noted above, the Commission has approved the addition of one-half to 1 MW of solar energy starting in 2011 to our Windsource portfolio. These resources (both wind and solar) do not count toward meeting the RES.

Going Forward

The environment for renewable energy development, and wind energy in particular, over the next few years is decidedly less certain than when we filed our 2007 Resource Plan. The economy has made it difficult especially for smaller projects to obtain financing. In addition, wind generation costs seem to be increasing; natural gas costs appear likely to remain relatively low; federal production tax credits once again expire in 2012; federal legislation to establish carbon markets and/or a federal renewable requirement appears to be stalled; integration costs may be higher than we originally

[10] In the Matter of Xcel Energy's Request for Approval of Revisions to its Voluntary Renewable and High Efficiency Purchase Rider, MPUC Docket No. E002/M-09-1177.

anticipated; and transmission capacity continues to be scarce, although that is likely to ease somewhat in the next few years as the CapX2020 projects are constructed and become operational.

This combination of factors creates an environment in which we need to act more cautiously in our renewable acquisition strategy, to ensure that our generation portfolio continues to provide our customers with reliable, affordable and clean electric service.

One benefit to our early actions to add cost-effective renewable generation to our portfolio is that we are well ahead of our compliance schedule for the state renewable targets in the jurisdictions in which we operate. This has allowed us to bank a significant number of RECs that we can draw upon for compliance as needed.

Based on our assessment of our current renewable portfolio, forecasted future generation and REC banking and retirements, we would be able to comply with the 2012 and 2016 milestones of the Minnesota RES without adding any new renewable resources. However, we continue to believe that a measured approach to installing cost-effective renewable resources provides greater stability in the market and avoids scenarios where Xcel Energy would need to acquire large amounts of wind over a relatively short time period. In addition, with the federal PTC expiring in 2012, it may be prudent to secure another increment of wind generation before the tax credit expires. As a result, we are proposing a flexible approach to expanding our renewable portfolio.

Our REC bank allows us to manage the type, size and timing of renewable energy additions on our system to ensure that we identify and acquire the renewable generation resources that provide our customers with the greatest value at the lowest cost. To do that we will continue to:

- Rely predominantly on the most productive and cost-effective renewable resources and technologies available to us;

- Invest to the extent practicable in renewable generation resources that we will own;
- Compare proposed resources against the cost and productivity of other resources, renewable and non-renewable, available to us in the marketplace; and
- Time the acquisition of new resources to allow advantageous tax and other incentive treatment when feasible.

Table 5.3 demonstrates our compliance with the renewable targets for the states NSP operates in, in the aggregate, for years 2010, 2012, 2016 and 2020, assuming that we add all of the wind capacity shown in our proposed plan.

Table 5.3
Compliance with Renewable Targets
with Planned Wind[11]

	2010	2012	2016	2020
1. NSP Retail Sales	41,643,581	42,783,901	44,377,881	45,870,669
2. Banked RECs at Beginning of Year	9,216,299	11,813,364	23,960,864	27,941,381
3. RECs Generated During Year	5,849,380	8,835,721	10,649,851	11,634,954
4. RECs Generated During Year as a % of NSP Retail Sales	14.0%	20.6%	24.0%	25.4%
5. RECs Needed for Compliance (all jurisdictions)	5,231,014	6,314,257	9,558,751	11,564,050
6. Banked RECs After Full Compliance (2+3-5)	9,834,665	14,334,828	25,051,964	28,012,285

[11] These figures include the RECs associated with our PPAs that are silent on the treatment of the environmental attributes associated with the renewable energy we are purchasing. See MPUC Docket No. E002/M-08-440. These so-called "silent RECs" are RECs from PPAs signed prior to the establishment of renewable tracking. It is the Company's position that the RECs are an integral part of the purchase and belong to Xcel Energy as part and parcel of its purchase of renewable energy and therefore should be available to be used for our compliance purposes. This issue has been presented to the Commission for consideration and the Company has been working to try to negotiate settlements. A number of these contracts have been successfully resolved. The sellers under other agreements do not agree and have maintained that these "silent" RECs belong to them.

Similarly, Table 5.4 demonstrates our compliance with the renewable targets for the states NSP operates in, in the aggregate, for years 2010, 2012, 2016 and 2020, assuming that we add no additional wind capacity beyond the projects we currently have under contract.

Table 5.4
Compliance with Renewable Targets, without Planned Wind

	2010	2012	2016	2020
1. NSP Retail Sales	41,643,581	42,783,901	44,377,881	45,870,669
2. Banked RECs at Beginning of Year	9,216,299	11,813,364	18,689,492	12,649,390
3. RECs Generated During Year	5,849,380	8,099,878	8,439,160	7,634,761
4. RECs Generated During Year as a % of NSP Retail Sales	14.0%	18.9%	19.0%	16.6%
5. RECs Needed for Compliance (all jurisdictions)	5,231,014	6,314,257	9,558,751	11,564,050
6. Banked RECs After Full Compliance (2+3-5)	9,834,665	13,598,985	17,569,901	8,720,101

As can be seen in Table 5.4, we would generate sufficient amount of RECs in 2012, and very nearly so in 2016, to satisfy our renewable obligations in those years without adding any wind capacity beyond the projects we currently have under contract. In addition, utilizing our banked RECs, we would be able to comply with all of the various renewable targets of the states in which we operate through 2020, without any additional wind beyond those contracted projects.

While the above table demonstrates our favorable position with respect to compliance with the RES, we have also considered construction scenarios and public policy goals in creating our Wind Expansion Plan. If we were to decide not to add wind to our

portfolio until 2020, we would immediately need to add about 1,100 MW of wind in order to continue to comply in 2021. In addition, because many of our states also have economic development goals related to the construction of renewable projects, we would like to ensure that development happens in a way that fosters a robust renewable industry. Although we do not plan to defer construction of new wind resources until our bank is depleted, we do intend to take advantage of the flexibility our early actions to add renewable to our system provides us, to ensure the best possible value for our ratepayers. Using this flexibility will help ensure cost effective compliance with renewable targets.

Wind Expansion Plan

We estimate that we would need approximately 1,150 MW of wind generation, in addition to those renewable projects that are operational, under contract, or under construction, to meet our 2020 RES requirement primarily from annual generation. As noted above, we would also be able to install a lesser amount of new wind generation and use a larger portion of our banked RECs to comply.

As a general rule, we believe that the market for renewable resources will develop in a more efficient manner if we spread our additions out more evenly over the compliance window. This approach will allow for orderly development of wind projects and provide for stability in the marketplace that will encourage the establishment of sustainable manufacturing and labor pools. Given that the federal Production Tax Credit for wind may expire at the end of 2012, we also believe it is important to maintain the flexibility to pursue economic projects even in advance of the milestones anticipated by the various state renewable statutes. We further think that competition for wind resources will continue to be strong as regional utilities seek to comply with state requirements, and that early acquisition of quality resources may be prudent.

To benefit from these considerations, Xcel Energy plans to issue a Request for Proposals (RFP) in August of 2010 to seek up to 250 MW of wind power by the end of 2012.

Price will be an important factor in determining how much wind we will acquire through the RFP. As demonstrated in our modeling discussion below, recent wind pricing proposals that we have received carry a premium over a natural gas alternative under today's forecasts. There are signs, however, that wind pricing has been coming down in other parts of the country. We expect that the proposals submitted in the RFP will reveal substantial improvement in the economics of wind as compared to past experience. If that is not the case, we will look closely at the the risks and benefits and could take advantage of our flexibility and opt not to add wind resources at this time.

Depending on the results of this RFP, the continued availability of the PTC or other incentives, and our ongoing evaluation of the cost impacts wind has on our system, our Wind Expansion Plan (WEP) would add another 400 MW between 2013 and 2016, and 500 MW between 2017 and 2020 to achieve RES compliance primarily with annual generation. For purposes of Strategist modeling we have suggested that these resources may be added at a rate of 100 MW per year, but we intend to retain the flexibility to install the wind earlier or later in this period, as necessary to ensure the best value to our ratepayers. Beyond 2020, we would only need to add wind as necessary to replace expiring contracts and keep up with retail sales growth. It is our intention to use the results o fthe 250 MW Wind RFP to help inform the pace of our Wind Expansison Program. We will bring the results back to the Commission if we see significant impediments to our expansion schedule and we will continue to evaluate this issue in future resource plans.

Wind Expansion Plan Cost Evaluation

To examine the cost impacts of our wind expansion plan, we have evaluated the addition of 1,150 MW of new wind by 2020, assuming wind costs similar to what we have seen recently in this region. The cost effectiveness of this level of wind resource depends highly on the continuation of the PTC, the operational and market experience associated with higher wind penetration levels, technological

advancements and the cost of additional transmission resources, as well as the cost of alternative generating resources.

In the proposed plan, projected energy production from all Xcel Energy owned or purchased renewable resources were included in the assessment, and wind generation was added according to the WEP described above.

We evaluated the Wind Expansion Plan with a base assumption that the PTC will be extended once more through 2014. Rather than attempting to forecast uncertain future wind prices, we also assumed that future wind project costs would be similar to the cost of projects we have seen recently. We also looked at the impact of wind on our plan if the PTC expired at the current date of 2012, and if it were extended to 2020. Not surprisingly, our analysis shows that wind with PTC pricing is more economic than non-PTC pricing, assuming that the entire lost value of the PTC is made up in the PPA through increased prices. While this result is intuitive, the magnitude of the difference indicates how much of wind energy economics is driven by the availability of the federal subsidy.

Finally, as discussed in Chapter 4, we compared our wind expansion plan with a scenario in which no new wind is added beyond the projects we currently have under contract, all of which is to be installed by the end of 2012. The purpose of this scenario is twofold. First, as discussed by the Chamber of Commerce in their October 2, 2009 comments in MPUC Docket E-999/CI-03-869, we are using this scenario to establish a baseline with which the costs of wind additions can be compared in order to determine the rate impact of meeting the Minnesota RES. As the Chamber noted, this information is important for evaluating whether any party wishes to petition the Commission for a reduction of the RES under Minn. Stat. 216B.1691, subd. 2a.

Second, the "no new wind" scenario illustrates the differences in costs and expansion plans were we to have a lower RES system-wide. Several of our jurisdictions with lower RES requirements or objectives are interested in evaluating the cost and impact

of the Minnesota RES on customer cost allocations and rates in their states. This scenario provides them with information that can help them review those costs and decisions. See Table 5.5 below.

Table 5.5
Wind Cost Evaluation ($000s)

	PVRR	$ Difference from Base
WEP with 2014 PTC Expiration (Base Assumption)	$90,702,859	
WEP with 2012 PTC Expiration	$90,863,004	$160,145
WEP with 2020 PTC Expiration	$90,256,401	-$446,458
No New Wind after 2012	$89,302,895	-$1,399,964

There are three key takeaways from this analysis. Assuming wind generation costs are roughly similar to the costs we have seen in this region recently:

- If the PTC expires in 2012, implementing our 1,150 MW wind expansion plan will have a PVRR impact of $160 million more than doing so if the PTC is extended until 2014.
- If the PTC is extended until 2020, implementing our WEP will reduce total PVRR by almost $450 million, relative to our base assumption.
- Under recent price levels, acquiring additional wind generation on the schedule and in the amounts we have described in our Wind Expansion Plan results in a PVRR of $1.4 billion more than a plan where no wind is acquired beyond our current commitments.

That last point is important – given wind costs similar to what we have seen in this region recently, we estimate that our total system costs would be over $1 billion more than if we used natural gas generation to provide the energy that the wind generation would supply. Looked at another way, to the extent that we can drive down the costs of wind generation to be closer to what we estimate natural gas generation would cost our ratepayers, we can reduce this PVRR difference.

To that end, we have also estimated a wind price at which we would be indifferent between wind energy and a natural gas alternative ("the breakeven price"). Using our base gas price forecast and a mid-range cost for carbon, we estimated that the breakeven cost for wind including PTCs is in the mid-$50's/MWh. This price range is substantially lower than the wind prices we have seen in this region recently.

Wind Expansion Plan cost analysis summary

Table 5-5 shows that under current pricing, the implementation of our full wind expansion plan would have a higher cost than an alternative portfolio that does not include this level of wind. However, we believe there may be an opportunity for reduced wind costs in the future. Xcel Energy is actively acquiring wind for all of our operating companies. In recent bidding processes we have seen substantially lower wind pricing in our Colorado and Texas utilities. We are hopeful that our 250 MW wind RFP will result in wind costs that are significantly lower than prices we have seen in the recent past. However, if we do not see the level of pricing we expect from this RFP, we may need to adjust our plans for wind expansion. In that event we will engage the Commission and stakeholders to work toward appropriate refinements.

Our assessment indicates that the overall cost and reliability impacts of implementation of the wind expansion plan needs to be monitored on an on-going basis as the market evolves and issues such as the life of the PTC are determined. Meanwhile, we intend to manage this situation as effectively as we can in the near term, and plan to seek up to 250 MW of PTC-qualifying wind between now and our next Resource Plan. We will bring the issue of the cost effectiveness of wind back to

the Commission if we do not see the wind prices that we expect, or if the PTC is not extended.

Related Renewable Energy Issues

Off-Ramps and Natural Gas Prices

The Minnesota RES provides the Minnesota Commission with the authority to modify or delay implementation of the RES under certain conditions, including when necessary to avoid a significant rate impact to a utility's ratepayers. This authority has come to be known as the "RES off-ramps." This potential also helps ensure that we will comply with our renewable obligations in Minnesota Statutes, section 216B.1691, subdivision 2b:

> Subd. 2b.Modification or delay of standard.
>
> (a) The commission shall modify or delay the implementation of a standard obligation, in whole or in part, if the commission determines it is in the public interest to do so. The commission, when requested to modify or delay implementation of a standard, must consider:
>
> (1) the impact of implementing the standard on its customers' utility costs, including the economic and competitive pressure on the utility's customers;
>
> (2) the effects of implementing the standard on the reliability of the electric system;
>
> (3) technical advances or technical concerns;
>
> (4) delays in acquiring sites or routes due to rejection or delays of necessary siting or other permitting approvals;
>
> (5) delays, cancellations, or nondelivery of necessary equipment for construction or commercial operation of an eligible energy technology facility;
>
> (6) transmission constraints preventing delivery of service; and
>
> (7) other statutory obligations imposed on the commission or a utility.

This authority has never been used, due in part to the fact that the statute is still relatively new. But another reason is that most utilities have relied heavily on wind generation for RES compliance, and wind generation has been a cost-effective resource over the past several years. With the potential for low, stable natural gas costs, the cost-effectiveness of wind generation may be changing. To better track the cumulative cost impact of the Minnesota RES on our ratepayers, we have forecast cost impacts with and without RES compliance. See Table 5.6 below.

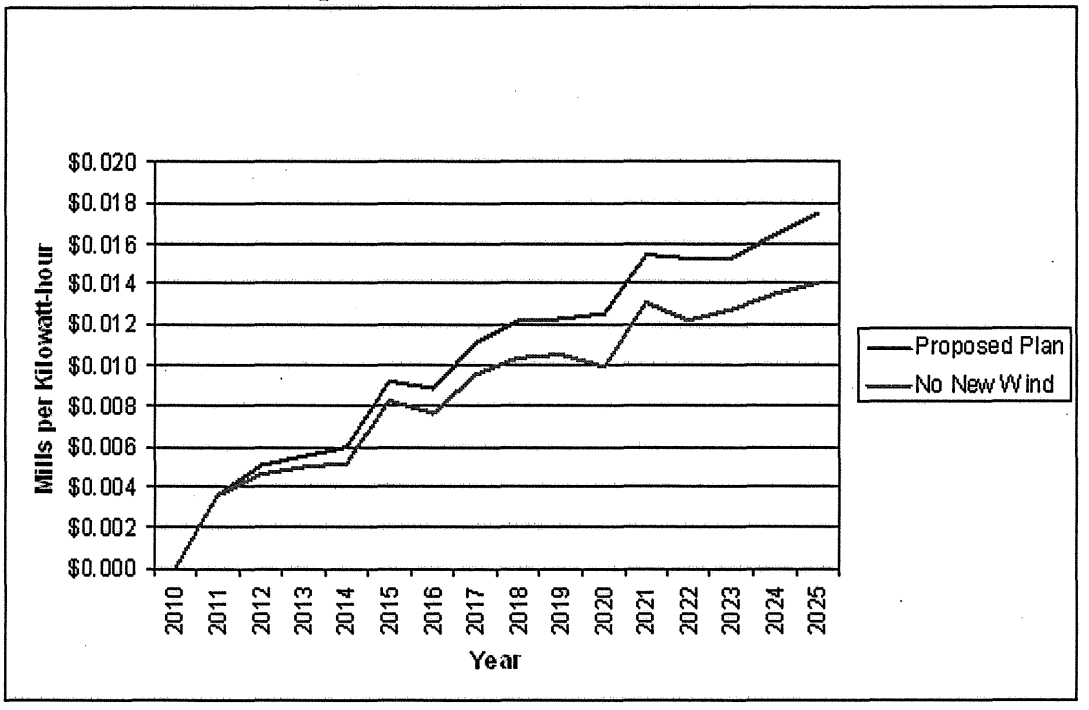
Table 5.6
Estimated Energy Cost Impacts
for Selected Years ($/kwh)

	2015 Increase over 2010	2020 Increase over 2010	2025 Increase over 2010
Proposed Plan with Wind Expansion Plan	$0.009	$0.013	$0.017
No New Wind after 2012	$0.008	$0.010	$0.014

This table shows the incremental cost per kilowatt-hour increase over a 2010 base cost per kwh. Under this analysis, our proposed plan with the WEP as described above would have a cost impact in 2020 of $0.003 per kilowatt-hour more than not adding additional wind generation beyond our current commitments.

Figure 5.2 graphs the incremental difference between these two scenarios over the full planning period.

Figure 5.2
Incremental Cost Per Kilowatt-hour Over 2010
Proposed Plan and No New Wind Scenarios



Even a small shift in our current expectations for gas prices, carbon regulation and wind cost could result in significant future cost impacts to fulfill the RES. In addition, individual wind projects may result in rate impacts that in aggregate could be significant. In order to monitor these impacts, Xcel Energy proposes to track, with each wind project approval process, both the incremental and aggregate rate impact of fulfilling RES requirements as compared to a reasonable alternative. We are not offering any specific proposals as to what might constitute a "significant rate impact," but providing this data will allow Xcel Energy and stakeholders to evaluate the impacts if an examination of adjustments to renewables policy is judged necessary.

Transmission

Transmission availability is a key factor in the cost-effective development of wind resources and is needed to ensure developments can continue to occur in prime wind areas of the state. The development of additional transmission resources is critical to

the success of utilities' resource plans, both to minimize the cost of wind resources through the elimination or reduction of curtailment payments to producers, and to avoid the need for expensive contingency plans of additional resources in the event the renewable resources are not available to meet growing customer needs. The Biennial Transmission Plan, submitted to the Commission by the Minnesota utilities, provides additional information on how we plan to fulfill this important role.

With regard to transmission needed to support the Minnesota RES, the Minnesota OES found in its review of the 2009 Biennial Transmission Plan that there is or will be sufficient transmission capacity to allow the Minnesota utilities to remain on course to meet the 2010 and 2012 milestones established by the Minnesota RES. The OES also found that meeting the RES milestones of 2016 and beyond will require additional transmission capability. To ensure adequate transmission capacity to meet those milestones, the Minnesota transmission owning utilities (including Xcel Energy) listed a number of potential transmission projects at various stages of the plan-permit-build-cost recovery process. Table 5.7 shows the various projects.

Table 5.7
MTO Identified Transmission Projects

Project *** Denotes Xcel Energy Involved In.**	**Est. Additional Capacity Enabled (MW)**	**Current Status**
Blue Lake Upgrade*	600	Under construction
Brookings – Twin Cities *	700	In permitting
Fargo – Twin Cities*	700	In permitting
DC Line Purchase	355	In permitting
RIGO*	500	In permitting
Corridor*	2,000	Under review
La Crosse – Madison*	1,600	Under study
Fargo – Split Rock*	1,000	Under study

Although we have successfully acquired certificates of need for many of these lines, the construction of the Brookings line has been delayed due to the uncertainty surrounding how the costs to build the line will be allocated. More information in MISO's cost allocation proposal is presented in the Transmission chapter of this Resource Plan.

Wind Integration and Baseload Cycling

As the percentage of wind energy on our system and in the MISO region continues to increase, we remain concerned about the cost and reliability of integrating wind with our other resources. The intermittent nature of wind resources requires supportive, ancillary services to follow the generation and respond instantaneously as wind resource production rises and falls. Although the ability to integrate wind resources across MISO has kept our integration costs relatively low, we are starting to see higher impacts on the operation of our facilities as wind penetration increases. This effect will become even greater if significant amounts of wind are developed in Minnesota and the Dakotas for export to eastern states.

Adding wind resources to the level of 25 percent or more of our system energy requirements will require operational changes. It is already important to develop methods to manage both variable wind resources and dispatchable resources, including how to manage the transmission grid to accommodate the variability of wind output. As a result, our expansion plan provides for the addition of more flexible, gas-fired resources, including the 680 MW of combined cycle generation to be added at our Black Dog facility. However, even these more flexible resources can be subject to startup costs, minimum loadings and ramping requirements that do not allow us to fully follow the wind.

Wind integration costs include a number of components that have been quantified in several studies, including the 2006 Minnesota Wind Integration Study, such as regulation, load following, unit commitment, uncertainty and variability. One component of wind integration costs that has not been yet been quantified is the costs associated with increased ramping on our baseload facilities.

Baseload generating plants operate at their peak efficiency when running at full load around the clock. When the combination of nuclear and coal generation on our system is higher than our customer demand, these plants need to reduce generation to meet available load. When wind is operating, especially in low load periods, these resources may also need to ramp generation up and down to respond to the variability of the wind generation. This additional ramping results in stress on plant components and leads to higher O&M costs and reduced efficiency of generation.

The Company has been studying the effect of cycling on our base load coal generating facilities. Our studies have focused on three coal fired thermal units, one each in Minnesota (Sherco 1), Colorado, and Texas. These studies are not yet complete but preliminary results do indicate that cycling our baseload plants can result in an increase in O&M cost, a reduction in the life of key plant components, a decrease in unit reliability and an increase in fuel costs per unit of output..

Wind generation is only one reason that base load generation is ramped. Based on an evaluation of 2009 data, our generating units were backed down specifically to accommodate wind generation approximately 18% of the hours in which any plant was backed down. Variation in customer load and MISO dispatch decisions also contribute to the cycling of these plants, and some of the base load reduction due to MISO dispatch decisions may be due to wind generation. We know that increased cycling will lead increased costs associated with additional wear on the facilities and suboptimal operating conditions. However, we have not yet been able to quantify these costs or to estimate the direct effect that wind generation has on these cost increases.

As the amount of power generated from renewable energy sources like wind and solar becomes a larger part of our generation fleet, so does the impact of its variability. At the same time, new environmental controls and operating limits may reduce the ability of our coal plants to move up and down as frequently as they may now. Planning for, reacting optimally to, and quickly responding to these varying generation sources can

have a significant impact on our overall fleet which will require careful management to assure optimization.
We will be continuing this study and will update the Commission on our progress in our next Resource Plan.

Wind Forecasting
We are investigating the integration of wind resources with our real-time operations to allow for real-time dispatch of wind resources at some level. Every day, our customers' demand for electricity increases in the morning, drives toward a peak in the late afternoon to early evening, and then decreases. Often, wind patterns show increasing generation at the same time that load is dropping. This mismatch creates a load-following burden on the system. By integrating signals from the real-time operations to the wind turbine regulating system, we could ease this load-following burden at times when traditional generation has trouble keeping up with the changes in load and wind generation.

In the spring of 2009, the National Center for Atmospheric Research (NCAR) agreed to work with Xcel Energy to provide highly detailed, localized weather forecasts to enable the utility to better integrate electricity generated from wind into the power grid. The forecasts will help operators make critical decisions about powering down traditional coal- and natural gas-fired plants when sufficient winds are predicted, allowing the utility to increase reliance on alternative energy while still meeting the needs of its customers.

The U.S. Department of Energy's National Renewable Energy Laboratory (NREL) is helping to support the project by developing mathematical formulas to calculate the amount of energy that turbines generate when winds blow at various speeds.

NCAR will use a suite of tools, including cutting-edge computer models, to issue high-resolution wind forecasts for wind farm sites every three hours. If the prediction system is successful, wind forecasting companies may adopt the technology to help utilities in the United States and overseas transition away from fossil fuels.

Wind Curtailment

We have been providing monthly wind curtailment reports for more than five years, beginning with May 2004. Transmission system limitations continue to be the primary reason for curtailment of wind production. With the addition of several transmission improvements in 2009, system limitations have been significantly reduced. As a result, we do not anticipate significant curtailment events in the coming years. Over the next five years, we expect wind generation curtailment and the associated payments to vendors to decrease significantly compared to historical levels. In our 2009 curtailment report, curtailment payments were projected to be approximately $2.6 million. Compare this amount to 2004, when curtailment payments exceeded $10 million, and 2006, where such payments were in excess of $6 million. In the 2010 to 2014 time frame, curtailment payments should be minimal under current wind project plans (both transmission and generation) for the NSP area. Of course, actual curtailment experience will depend on the timing of wind development relative to the timing of ongoing system improvements to support them.

Ownership of generation

As the wind industry has evolved, several different ownership structures have emerged. One primary structure is an independent developer that owns and operates a wind facility, selling its output to a utility through a long-term PPA. Xcel Energy has also entered into small wind contracts with individuals, and community-based energy development (C-BED) projects. In 2008, we placed our first owned wind project into service, the 100 MW Grand Meadow project. We now have an additional 350 MW of owned wind under development. Maintaining all of these ownership structures in our wind portfolio allows us to capitalize on the various strengths of market participants, by working toward a robust marketplace where all market participants compete for and contribute to our renewable energy plan.

We believe utility ownership of renewable generation has proven to be of value to our customers, and should continue to be an option for some portion of the additional resources we will need to acquire for compliance by 2020. By the end of 2011, we will have 450 MW of Xcel Energy owned wind generation on our system. Going forward,

utility ownership of wind resources may take different forms than this build-transfer/complete ownership model we have used thus far. Our investments in wind generation in the future may include smaller, targeted, partnerships or partial ownership of projects or some other structure. We believe this balanced portfolio offers benefits to all stakeholders.

We continue to support the objective of creating and retaining local benefits through wind development, as envisioned by the Minnesota C-BED program. Our compliance strategy reflects this commitment through continued efforts to secure C-BED resources for our system, but with a renewed focus on the cost-effectiveness of those resources.

Going forward, it will be increasingly important that C-BED projects are competitive with other projects available to us. In a recent proceeding before the Commission, our regulators expressed a growing concern that C-BED projects may require too high a premium relative to non-C-BED projects, and directed us to take steps to ensure against that possibility in the future. We understand that concern, and will take steps in the future to further ensure the competitiveness of the C-BED projects we propose to add to our supply portfolio. Legislation was enacted in the 2010 Minnesota legislative session to reform the C-BED statute. Proponents of that legislation stated that the legislation expands the variety of project structures that can qualify as C-BED, and clarifies the requirements and process for C-BED eligibility. As a result, the advocates for the legislation believe that it will help C-BED projects be more competitive with non-C-BED projects.

In the Renewable Energy Plan approved by the Commission, long term targets for different types of ownership structures, CBED, traditional developer PPA, and utility ownership, were established. Our plan called for approximately a third of each. While we have the same underlying goals in mind we do not believe it is necessary or productive to focus on long term goals at this time. The appropriate mix will be determined in the near term, in large part, as the result of our 250 MW Wind RFP. We believe utility ownership will continue to be an effective way to bring value to

customers and mitigate some of the risk associated with heavy reliance on power purchases but we too must compete. We propose our statement of long term targets be adjusted slightly to reflect the importance of cost competitive proposals and suggest consolidating the targets to roughly a third utility owned and two thirds power purchases of all types, including C-BED. As we note above, it is very possible the distinctions we have used to describe ownership structures will blur considerably over time.

Renewable Resources and DSM Cases

Minn. Stat. § 216B.2422, subdivision 2 requires that a utility must, in its Resource Plan, develop scenarios for obtaining 50 and 75 percent of its new and refurbished resource capacity needs from renewable resources and demand-side management. This requirement, which preceded the Minnesota RES and the legislated increase in our Minnesota DSM goals, ensured that utilities seriously considered the role of renewable energy and DSM could play in their resource mixes, and appropriately evaluated the associated costs.

With the passage of the RES and the higher DSM requirements, it appears that this requirement has become somewhat redundant. Based on our analysis of our proposed plan, we find that 75% of our incremental energy needs in this plan are being supplied by renewable energy or demand-side management. Supplying less, as the 50% scenario contemplates, would not fulfill the RES and DSM statutes; thus, we did not perform a separate analysis of that scenario.

Renewable Contingency Plan

The Minnesota RES sets an aggressive goal that we are committed to achieving. That said, it is only prudent that we recognize the possibility that we will be unable to implement all of the wind energy needed to fulfill our RES requirements, or that the economics will change and the costs of compliance would no longer be reasonable. The RES requires that we continue to monitor the costs and progress through each Resource Plan, and provides two specific mechanisms to assist if we are unable to meet the RES through our Wind Expansion Plan. First, the legislation required the

Commission to establish a trading system for renewable energy credits ("RECs"). In Docket No. E999/CI-04-1616, the Commission established the Midwest Renewable Energy Tracking System ("MRETS") as the means for tracking RECs and set out the basis for a system that would allow for trading over a broader regional area. If Xcel Energy is unable to meet the RES through cost-effective installation or acquisition of wind resources, our first contingency will be utilize our existing REC bank for compliance. The second contingency is to attempt to purchase RECs to meet the RES. Since we have a specific wind energy requirement for RES compliance, we assume that we would need to specifically purchase wind RECs for compliance.

As discussed above, the third mechanism provided by the Minnesota RES legislation is the ability for the Commission to modify or delay a utility's RES requirement under certain circumstances.

We believe that our ongoing planning efforts, required updates to the Renewable Energy Plan, and future Resource Plans will ensure that these factors are evaluated and offer the opportunity for parties to comment on our progress toward compliance and whether any modifications are necessary or appropriate.

Manitoba Hydro

Currently, Xcel Energy and Manitoba Hydro are parties to a 500 MW System Power Sale Agreement that terminates on April 30, 2015. This contract provides Xcel Energy with 500 MW of capacity from MH's system along with intermediate-load energy, five days per week, sixteen hours per day. In addition, these utilities are parties to two diversity exchange agreements, which in aggregate call for the seasonal exchange of 350 MW of capacity along with peaking energy. These diversity exchange agreements begin expiring starting in 2015.

On May 27, 2010, Xcel Energy executed a series of 3 new power purchase agreements with Manitoba Hydro that in essence extend a series of existing agreements through mid-2025. On May 28, 2010 we issued a press release announcing our new

transaction. On June 10, 2010 we filed a Petition for approval of our agreements with the Commission under Docket No. E002/M-10-633. The three agreements will work together as a single transaction, and will extend our long-standing contractual relationship with Manitoba Hydro for another ten years. If approved by the Commission and Canadian authorities, this transaction will result in the Company obtaining 725 MW of reliable capacity during summer season months when NSP needs additional capacity, along with energy from Manitoba Hydro's system. Depending on future circumstances, the transaction could increase to up to 850 MW in the summer season (450 MW in the winter season) beginning in May 2021.

Power Purchase Agreements

The Manitoba Hydro PPAs as a group consist of three (3) power purchase agreements covering generating capacity and energy being purchased and sold. Without these agreements, we would lose 850 MW of capacity and energy that is important in meeting our customers' power requirements and contributes to our environmental goals. The PPAs will provide a low-cost resource to address our capacity and energy needs, and extend, update and restructure our contractual relationship with Manitoba Hydro.

The bulk of the energy provided by the agreement is based on a fixed price and therefore protects Xcel Energy from potential volatility in the natural gas market. The transaction is also structured to fully utilize the existing transmission path between Manitoba Hydro and Xcel Energy and provide our customers access to the environmental attributes of Manitoba Hydro's system, which consists predominantly of hydro generation resources.

The three agreements are summarized as follows:

- *375/325 MW System Power Agreement:* This agreement is scheduled to last from May 1, 2015 through April 30, 2025. Xcel Energy will purchase 375 MW of capacity during the six summer season months and 325 MW of capacity during the remaining six winter season months. The capacity

must be qualified by MISO as an external resource, allowing Xcel Energy to include it as reliable system capacity. This agreement also includes several energy products. Manitoba Hydro must offer energy during the four system peak hours every day as part of MISO's capacity requirements. NSP must purchase energy five days per week year-round; 16 hours per day in the summer, and 12 hours per day in the winter.

- *125 MW System Power Agreement.* This agreement will last from May 1, 2021 through April 30, 2025, if Manitoba Hydro has contracted to construct its next major hydroelectric project. Under this agreement, Xcel Energy will purchase an additional 125 MW (year-round) capacity and energy on essentially the same terms as the 375/325 MW System Power Agreement, increasing Xcel Energy's system purchase to 500 MW (Summer) and 450 MW (Winter). If by May 1, 2018, MH has not committed to proceed with a new major hydroelectric project, this contract will terminate, unless Manitoba Hydro waives this new project condition but the 375/325 MW agreement will remain in place.

- *350 MW Diversity Agreement.* Under the Diversity Agreement, the parties replace and extend their existing 350 MW of seasonal capacity exchange through April 30, 2025.

The overall transaction results in at least 725 MW (potentially up to 850 MW) of reliable capacity along with environmental attributes associated with MH's hydroelectric system. It ensures the availability of reliable generating capacity and energy, at favorable pricing, to our customers through 2025. The transaction also provides less capacity during the six winter season months, reflecting Xcel Energy's reduced need for capacity during that period. The Manitoba Hydro PPAs utilize an existing transmission path, which can support as much as 892 MW per hour of transfer. Because of the energy profile of these contracts, there will be many hours of the year when substantially less power is flowing over the transmission path. The

three Manitoba Hydro PPAs collectively provide a mechanism to more efficiently utilize the path when it is not being used to serve the requirements of the contract.

Alternative Competitive Resource Acquisition

Our filing initiated the Alternative Competitive Resource Acquisition process established in Docket No. E002/RP-04-1752, established by the Commission as part of our 2004 Resource Plan. The process provides an opportunity for alternative proposals to be filed with the Commission when the Company is requesting approval for a project that was not selected in a competitive bidding process It allows regulators to ensure that the resources the Company acquires are the most reliable and cost-effective options for our customers. Prospective alternative providers must intervene in support of their own proposal in a contested case proceeding.

We have recommended that the Commission set a schedule in the MH proceeding to require any alternatives to the Company's proposal to be filed by October 1. For the sake of procedural efficiency, we ask that the evaluation of our Manitoba Hydro proposal and alternatives to that proposal be considered entirely within the Manitoba Hydro proceeding, MPUC Docket No. E002/M-10-633, and that issues and questions related to that proposal not be taken up in consideration of this Resource Plan.

Project Benefits

Our Manitoba Hydro petition demonstrates a number of benefits that will accrue to our customers should the contracts be approved. First, our analysis indicates that these contracts are lower cost than other feasible alternatives we evaluated. The fixed price energy and capacity within the transaction provide a hedge against the volatility of natural gas and other fuels, and enhances the diversity of our generation portfolio. They further utilize an existing transmission path and contractually provide us with the environmental benefits of the Manitoba Hydro system. We are confident that these contracts provide superior value to our customers and will be approved.

Conclusion

Our renewable energy resources comprise a significant portion of our system and consist of wind, biomass, solar, small hydro and purchases from Manitoba Hydro. While the Manitoba Hydro resources are not considered an "eligible energy technology" for purposes of complying with the RES, they nonetheless provide our customers with significant environmental and other benefits.

Our early installation of wind resources has allowed us to build a significant portfolio of cost-effective renewable resources in order to comply with our RES. As such, we have the flexibility to ensure that we are complying with future RES milestones in the most cost-effective manner. We recognize that we will need to continue monitoring our progress toward compliance and its impacts on reliability and costs, as transmission access, the life of the PTC, the cost of resource alternatives and other issues may significantly influence our compliance strategy. We are undertaking efforts to address these issues; however, as contemplated by the RES, on-going monitoring and continued evaluation of the cost and reliability impacts of the RES will be important.

Unit	Maximum Capacity (MW)	July Accredited Capacity (MW)	Retirement Date	First Year Available
***COAL 0**				
AS King 1	510.0	510.0	2049	
BlackDog 3	89.0	89.0	2015	
BlackDog 4	164.0	164.0	2015	
Sherco 1	697.0	697.0	2049	
Sherco 2	682.0	682.0	2049	
Sherco 3	521.0	521.0	2049	
***NUCLEAR 0**				
Monti 1	587.0	564.0	2029	
P Island 1	546.0	521.0	2033	
P Island 2	546.0	518.7	2034	
***BIOMASS 0**				
Bayfront 4	22.0	22.0	2023	
Bayfront 5	22.0	22.0	2023	
Bayfront 6	28.0	28.0	2023	
Fch Isld 12	29.0	29.0	2023	
Redwing 12	21.0	21.0	2017	
Wilmarth 12	20.0	20.0	2017	
St. Paul 1	25.0	25.0	2023	
VirgHibb 1	35.0	35.0	2026	
Fibromin 1	50.0	50.0	2028	
***GAS CTs 0**				
Anson 2	120.0	94.0	2019	
Anson 3	120.0	94.0	2019	
Anson 4	181.0	158.0	2035	
Bluelake 7	180.0	155.0	2035	
Bluelake 8	180.0	155.0	2035	
Flambeau 1	18.0	14.0	2012	
Granite 1	16.0	13.0	2013	
Granite 2	16.0	13.0	2013	
Granite 3	16.0	13.0	2013	
Granite 4	16.0	13.0	2013	
Inverhil 1	62.0	47.0	2027	
Inverhil 2	62.0	47.0	2027	
Inverhil 3	62.0	47.0	2027	
Inverhil 4	62.0	47.0	2027	
Inverhil 5	62.0	47.0	2027	
Inverhil 6	62.0	47.0	2027	
Key City 1	16.0	13.0	2013	
Key City 2	0.0	0.0	2013	
Key City 3	16.0	13.0	2013	
Key City 4	16.0	13.0	2013	
Wheaton 1	62.0	47.0	2035	
Wheaton 2	70.0	55.0	2035	
Wheaton 3	62.0	47.0	2035	
Wheaton 4	62.0	47.0	2035	
Invenerg 1	358.0	300.9	2025	

Unit	Maximum Capacity (MW)	July Accredited Capacity (MW)	Retirement Date	First Year Available
***GAS CCs 0**				
BlkDg CC 52	315.0	283.0	2032	
HB_CC 1	575.0	495.0	2049	
RS_CC 1	511.0	484.0	2049	
LSCotGrv 1	275.0	244.2	2027	
CalpMnkt 1	375.0	319.0	2025	
BLKDG CC 67	804.0	703.0	2049	2016
***OIL 0**				
Bluelake 1	52.0	40.0	2030	
Bluelake 2	52.0	40.0	2030	
Bluelake 3	52.0	40.0	2030	
Bluelake 4	59.0	47.0	2030	
Fch Isld 3	81.0	61.0	2023	
Fch Isld 4	81.0	61.0	2023	
Wheaton 5	70.0	52.0	2035	
Wheaton 6	70.0	52.0	2035	
InvrD78 78	5.0	4.0	2049	
Diesels 1	7.5	6.0	2049	
***PURCHAS 1**				
Cyprus 1	40.0	40.0	2011	
Coyote 1	100.0	100.0	2015	
***GENERIC 0**				
225_CT 1	223.0	195.0	2049	2015
812_CC 1	812.7	731.0	2049	2017
1000_Nuc 1	1000.0	960.0	2049	2026
IGCCwSEQ 1	515.0	437.0	2049	2020
SCPCwSEQ 1	511.0	485.0	2049	2022

Unit	Maximum Capacity (MW)	July Accredited Capacity (MW)	Annual Energy (GWh)	Retirement Date	First Year Available
Barron	0.00	0.00	0.13	2049	
FlyngCld	4.60	4.60	0.40	2019	
HERC	33.70	33.70	215.40	2017	
MNMethan	3.10	3.10	14.45	2014	
PineBend	12.00	12.00	49.24	2026	
RARH	12.00	12.00	89.35	2028	
***HYDRO**					
Byllesby	2.60	2.60	10.59	2028	
EauGalle	0.30	0.30	1.19	2026	
Hastings	3.30	3.30	23.15	2033	
LacCourt	3.10	3.10	3.95	2021	
Neshonoc	0.40	0.40	2.15	2019	
Rapidan	2.80	2.80	19.79	2017	
SAF Hydro	9.18	6.33	62.00	2031	
St.Cloud	6.70	6.70	43.30	2021	
***MANTOBA**					
MH500	500.00	500.00	2085.71	2015	
Div150In	169.00	169.04	132.48	2014	
Div200In	225.00	225.38	176.64	2016	
Div150Out	-150.00	0.00	0.00	2015	
Div200In	-200.00	0.00	0.00	2016	
MH375500	375/500	375/500	1292/1749	2025	2015
DIV385In	350.00	350.00	0.00	2025	2015
DIV385Out	350.00	0.00	0.00	2025	2015
***WIND**					
WoodStck	10.20	1.22	25.08	2034	
Lakota	11.25	1.35	27.67	2034	
NAEShaok	11.88	1.43	37.07	2034	
Velva	11.88	1.43	31.21	2026	
CommWindN	30.00	3.60	90.33	2030	
Ridgewind	26.00	3.12	86.81	2031	
Adams	20.00	2.40	62.78	2031	
Ewington	19.95	2.39	60.02	2028	
GrantCo	20.00	2.40	56.51	2028	
Danielson	20.00	2.40	62.64	2031	
GoodhuNS	78.00	9.36	255.18	2031	
WindPowr	25.00	3.00	61.48	2019	
Jeffers	50.00	6.00	150.43	2027	
Moraine	51.00	6.12	159.12	2018	
Chanaram	85.50	10.26	268.30	2023	
FPL Mowr	98.90	11.87	323.47	2026	
LkBnton1	107.25	12.87	263.74	2023	
LkBnton2	103.50	12.42	311.39	2030	
MNDakota	150.00	18.00	512.85	2022	
Fenton	205.50	24.66	702.61	2032	
GrandMed	100.50	12.06	335.47	2033	

Unit	Maximum Capacity (MW)	July Accredited Capacity (MW)	Annual Energy (GWh)	Retirement Date	First Year Available
Big Blue	36.00	4.32	123.12	2031	
ValleyVw	10.00	1.20	34.20	2031	
Uilk	4.50	0.54	11.07	2030	
Nobles	201.00	24.12	720.68	2035	
PrRose	200.00	24.00	725.76	2032	
NDWind	150.00	18.00	568.69	2037	
NthShaok	13.53	1.62	35.54	2033	
Ruthton	15.84	1.90	47.66	2031	
WVarious	16.34	1.96	55.87	2031	
WSJJN	1.50	0.18	5.13	2031	
Garmcn	27.50	3.30	67.58	2028	
WSGarmcn	9.25	1.11	22.73	2021	
Viking	12.00	1.44	39.25	2018	
Westridg	7.60	0.91	23.85	2028	
Stahl	8.25	0.99	25.74	2025	
WSWstrdg	9.50	1.14	29.81	2028	
Eastridg	10.00	1.20	24.59	2026	
MNWind	11.55	1.39	36.04	2025	
Tholen	13.20	1.58	45.13	2025	
Norgaard	8.75	1.05	22.98	2026	
WSMorrn	49.50	5.94	154.44	2019	
Cisco	8.00	0.96	21.01	2028	
HennWind	1.5	0.18	5.13	2031	
Woodstk2	0.75	0.09	2.26	2030	
CommWndS	30	3.6	93.63	2032	
Winona	1.5	0.18	4.51	2031	
***SOLAR**					
St Johns	0.4	0.16	0.59	2030	
Slayton	1.7	0.68	2.59	2032	
SolrRwd	Varies by Year				

Unit	Annual Energy (GWh)	July Accredited Capacity (MW)
AppleRiv 1	14.611	1.29
BigFalls 1	36.146	3.44
CedarFls 1	33.596	3.01
Chippewa 1	65.600	10.32
Cornell 1	83.029	14.19
EauClare 1	41.693	3.44
Hayward 1	1.462	0.43
HennIsld 1	69.175	4.73
Holcombe 1	94.324	15.48
JimFalls 1	109.941	24.51
Ladysmth 1	10.341	1.29
Menomoni 1	22.918	2.58
Riverdal 1	3.095	0.86
SaxonFls 1	10.323	0.86
St.Croix 1	114.365	10.32
Superior 1	11.721	0.86
Thornapl 1	8.245	0.86
Trego 1	7.326	0.86
WhiteRiv 1	4.688	0.86
Wissota 1	134.120	15.48

Generic Wind (Max Capacity in MW)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
WIND_PPA	0	0	0	0	0	0	0	0	0	0	200	200	200	200	200	200
WIND_PPA	0	0	0	0	0	0	0	0	0	100	100	100	100	100	100	100
WIND_PPA	0	0	0	0	0	0	0	0	100	100	100	100	100	100	100	100
WIND_PPA	0	0	0	0	0	0	0	100	100	100	100	100	100	100	100	100
WIND_PPA	0	0	0	0	0	0	100	100	100	100	100	100	100	100	100	100
WIND_PPA	0	0	0	0	0	100	100	100	100	100	100	100	100	100	100	100
WIND_PPA	0	0	0	0	100	100	100	100	100	100	100	100	100	100	100	100
WIND_PPA	0	0	0	100	100	100	100	100	100	100	100	100	100	100	100	100
Total	**0**	**0**	**0**	**100**	**200**	**300**	**400**	**500**	**600**	**700**	**900**	**900**	**900**	**900**	**900**	**900**

* Accredited Capacity for wind is 12%

System Rates	
Composite Tax Rate	40.74%
Federal Income Tax Rate	35%
Inflation Rate	1.90%
Real Discount Rate	5.55%
Utility Discount Rate	7.56%
Weighted Cost of Capital	7.56%
Capital Project Rates	
AFUDC Rate	7.70%
Debt Structure Rate	46.17%
Desired Return on Rate Base	8.83%
Insurance Rate	0.04%
Long Term Debt Interest Rate	6.56%
Property Tax Rate	1.67%
Escalation Rates	
Labor	2.56%
NonLabor	1.60%
Weighted	1.90%
L25C75	1.84%
L50C50	2.08%
L75C25	2.32%
4 Prct	4.00%
3 Prct	3.00%
2 Prct	2.00%
5 Prct	5.00%
6 Prct	6.00%
7 Prct	7.00%
1Prct	1.00%

	Weighted Average Fuel Price ($/mmBtu)					
	Coal	Gas	Nuke	Oil	Biomass	RDF
2010	$1.87	$4.52	$0.81	$16.07	$2.76	$0.20
2011	$2.06	$4.23	$0.83	$17.28	$2.84	$0.20
2012	$2.14	$4.38	$0.87	$18.09	$2.93	$0.20
2013	$2.23	$4.85	$0.89	$20.32	$3.01	$0.20
2014	$2.36	$5.14	$0.94	$21.55	$3.10	$0.21
2015	$2.38	$5.51	$1.00	$22.20	$3.20	$0.21
2016	$2.43	$5.97	$1.02	$22.83	$3.29	$0.22
2017	$2.46	$6.24	$1.04	$23.64	$3.39	$0.23
2018	$2.52	$6.35	$1.06	$24.31	$3.49	$0.23
2019	$2.57	$6.62	$1.08	$24.65	$3.60	$0.24
2020	$2.67	$6.87	$1.10	$25.14	$3.71	$0.25
2021	$2.73	$7.29	$1.12	$25.91	$3.82	$0.26
2022	$2.78	$7.61	$1.14	$26.56	$3.93	$0.26
2023	$2.83	$7.85	$1.17	$26.86	$4.05	$0.27
2024	$2.87	$8.08	$1.19	$27.40	$4.17	$0.28
2025	$2.93	$8.37	$1.21	$27.99	$4.30	$0.29

Generator Nameplate Capacity and Percentage Generated from Eligible Renewable Energy

Purchased Wind	Type	State	Generator Nameplate Capacity (MW)	Percentage Generated from Renewable Energy
Agassiz	Wind	MN	1.98	100%
Boeve	Wind	MN	1.90	100%
Carlton College	Wind	MN	1.65	100%
Chanarambie PP	Wind	MN	85.50	100%
Cisco	Wind	MN	8.00	100%
East Ridge	Wind	MN	10.00	100%
Ewington	Wind	MN	19.95	100%
Fenton Power Partners I	Wind	MN	105.25	100%
Fenton Power Partners II	Wind	MN	103.50	100%
Fey Windfarm	Wind	MN	1.90	100%
FPL Mower County	Wind	MN	98.90	100%
Garwin McNeilus Windfarm	Wind	MN	36.75	100%
Grant County	Wind	MN	20.00	100%
Hilltop	Wind	MN	2.00	100%
Jeffers	Wind	MN	50.00	100%
JJN Windfarm	Wind	MN	1.50	100%
K-Brink Windfarm	Wind	MN	1.90	100%
KAS Brothers	Wind	MN	1.50	100%
Lake Benton PP	Wind	MN	209.25	100%
Metro	Wind	MN	0.66	100%
MinnDakota	Wind	MN/SD	150.00	100%
Minwind	Wind	MN	11.55	100%
Moraine Wind	Wind	MN	51.00	100%
Moraine II	Wind	MN	49.50	100%
Norgaard North	Wind	MN	5.00	100%
Norgaard South	Wind	MN	3.75	100%
North Shaokotan	Wind	MN	11.88	100%
Olsen	Wind	MN	1.50	100%
Pipestone	Wind	MN	8.25	100%
Ridgewind	Wind	MN	25.30	100%
Rock Ridge	Wind	MN	1.80	100%
Ruthton Ridge	Wind	MN	15.84	100%
Shane	Wind	MN	2.00	100%
Shaokatan	Wind	MN	1.65	100%
Shaokatan Hills	Wind	MN	11.88	100%
Southridge	Wind	MN	1.80	100%
St Olaf	Wind	MN	1.65	100%
Tholen	Wind	MN	13.20	100%
Uilk	Wind	MN	4.50	100%
Velva	Wind	ND	11.88	100%
Westridge Windfarm	Wind	MN	9.50	100%
Windcurrent Farms	Wind	MN	1.90	100%
Windpower Partners	Wind	MN	25.00	100%
Windvest	Wind	MN	1.80	100%
Woodstock Municipal	Wind	MN	0.75	100%
Total Purchased Wind			**1,184.97**	

Generator Nameplate Capacity and Percentage Generated from Eligible Renewable Energy

Purchased Solar	Type	State	Generator Nameplate Capacity (MW DC)	Percentage Generated from Renewable Energy
freEner-g 2009 Group	Solar	MN	0.01	100%
freEner-g 2010 Group	Solar	MN	0.03	100%
MN Solar Rewards	Solar	MN	0.81	100%
St. John's Solar	Solar	MN	0.31	100%
Total Purchased Solar			**1.16**	

Purchased Hydro	Type	State	Generator Nameplate Capacity (MW)	Percentage Generated from Renewable Energy
Neshonoc	Hydro	WI	0.40	100%
Total Purchased Hydro			**0.40**	

Purchased Wood	Type	State	Generator Nameplate Capacity (MW)	Percentage Generated from Renewable Energy
Laurentian Energy	Wood	MN	35.00	100%
Total Purchased Wood			**35.00**	

Purchased Landfill Gas	Type	State	Generator Nameplate Capacity (MW)	Percentage Generated from Renewable Energy
Minn Methane\Waste Mgmt	Landfill Gas	MN	3.20	100%
Pine Bend	Landfill Gas	MN	12.00	100%
Total Purchased Landfill Gas			**15.20**	

Total Purchased Renewables	**1,236.73**

Generator Nameplate Capacity and Percentage Generated from Eligible Renewable Energy

Owned Wind	Type	State	Generator Nameplate Capacity (MW)	Percentage Generated from Renewable Energy
Grand Meadow	Wind	MN	100.50	100%
Nobles Wind Farm	Wind	MN	201.00	100%
Total Owned Wind			**301.50**	

Owned Hydropower	Type	State	Generator Nameplate Capacity (MW)	Percentage Generated from Renewable Energy
Apple River	Hydro	WI	2.25	100%
Big Falls	Hydro	WI	7.78	100%
Cedar Falls	Hydro	WI	6.00	100%
Chippewa Falls	Hydro	WI	21.60	100%
Cornell	Hydro	WI	35.30	100%
Eau Claire Dells	Hydro	WI	12.43	100%
Hayward	Hydro	WI	0.17	100%
Hennepin Island - St. Anthony Falls	Hydro	MN	12.40	100%
Holcombe	Hydro	WI	33.75	100%
Jim Falls	Hydro	WI	59.80	100%
Ladysmith	Hydro	WI	3.40	100%
Menomonie	Hydro	WI	5.40	100%
Riverdale	Hydro	WI	0.50	100%
Saxon Falls	Hydro	WI/MI	1.55	100%
St Croix	Hydro	WI	23.20	100%
Superior Falls	Hydro	WI/MI	1.85	100%
Thornapple	Hydro	WI	1.40	100%
Trego	Hydro	WI	1.20	100%
White River	Hydro	WI	1.00	100%
Wissota	Hydro	WI	36.00	100%
Total Owned Hydropower			**266.98**	

Owned Biomass	Type	State	Generator Nameplate Capacity (MW)	Percentage Generated from Renewable Energy
French Island	RDF/Wood/Gas	WI	30.45	99.8%
Red Wing	RDF/Gas	MN	23.00	98.6%
Wilmarth	RDF/Gas	MN	25.00	97.7%
Total Owned Biomass			**78.45**	

Total Owned Renewables	**646.93**
Total Purchased Renewables	**1,236.7**
Total Xcel Energy - North Renewables	**1,883.7**

CERTIFICATE OF SERVICE

I, Mark Suel hereby certify that I have this day served copies of the foregoing document on the attached list of persons electronically, delivery by hand or by causing to be placed in the U.S. mail at Minneapolis, Minnesota.

DOCKET NO. E-999/CI-11-852

Dated this 25th day of October, 2011

/s/

Mark Suel

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
David	Aafedt	daafedt@winthrop.com	Winthrop & Weinstine, P.A.	Suite 3500, 225 South Sixth Street Minneapolis, MN 554024629	Paper Service	No	SPL_SL_11-852_Interested Parties
Christopher	Anderson	canderson@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022191	Electronic Service	No	SPL_SL_11-852_Interested Parties
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
William A.	Blazar	bblazar@mnchamber.com	Minnesota Chamber Of Commerce	Suite 1500 400 Robert Street North St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
Michael	Bradley	bradleym@moss-barnett.com	Moss & Barnett	4800 Wells Fargo Ctr 90 S 7th St Minneapolis, MN 55402-4129	Electronic Service	No	SPL_SL_11-852_Interested Parties
Jon	Brekke	jbrekke@grenergy.com	Great River Energy	12300 Elm Creek Boulevard Maple Grove, MN 553694718	Paper Service	No	SPL_SL_11-852_Interested Parties
Mark B.	Bring	mbring@ottertail.com	Otter Tail Corporation	215 South Cascade Street PO Box 496 Fergus Falls, MN 565380496	Paper Service	No	SPL_SL_11-852_Interested Parties
B. Andrew	Brown	brown.andrew@dorsey.com	Dorsey & Whitney LLP	Suite 1500 50 South Sixth Street Minneapolis, MN 554021498	Paper Service	No	SPL_SL_11-852_Interested Parties
Christina	Brusven	cbrusven@fredlaw.com	Fredrikson & Byron, P.A.	200 S 6th St Ste 4000 Minneapolis, MN 554021425	Electronic Service	No	SPL_SL_11-852_Interested Parties
Tammie	Carino	tcarino@GREnergy.com	Great River Energy	12300 Elm Creek Blvd. Maple Grove, MN 55369-4718	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Douglas M.	Carnival		McGrann Shea Anderson Carnival	Straugn & Lamb 800 Nicollet Mall, Suite 2600 Minneapolis, MN 554027035	Paper Service	No	SPL_SL_11-852_Interested Parties
Christopher	Clark	christopher.b.clark@xcelenergy.com	Xcel Energy	5th Floor 414 Nicollet Mall Minneapolis, MN 554011993	Paper Service	No	SPL_SL_11-852_Interested Parties
Kenneth A.	Colburn	kcolburn@symbioticstrategies.com	Symbiotic Strategies, LLC	26 Winton Road Meredith, NH 32535413	Paper Service	No	SPL_SL_11-852_Interested Parties
George	Crocker	gwillc@nawo.org	North American Water Office	PO Box 174 Lake Elmo, MN 55042	Paper Service	No	SPL_SL_11-852_Interested Parties
Mark F.	Dahlberg	markdahlberg@nweco.com	Northwestern Wisconsin Electric Company	P.O. Box 9 104 South Pine Street Grantsburg, WI 548400009	Paper Service	No	SPL_SL_11-852_Interested Parties
Jeffrey A.	Daugherty	jeffrey-daugherty@centerpointenergy.com	CenterPoint Energy	800 LaSalle Ave Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Curt	Dieren	cdieren@dgrnet.com	L&O Power Cooperative	1302 South Union Street PO Box 511 Rock Rapids, IA 51246	Paper Service	No	SPL_SL_11-852_Interested Parties
Mike	Eggl	smeier@bepc.com	Basin Electric Power Cooperative	1717 East Intertate Avenue Bismarck, ND 58503	Paper Service	No	SPL_SL_11-852_Interested Parties
Kristen	Eide Tollefson	ket@wro-ns.net	R-CURE	P O Box 129 Frontenac, MN 55026	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Bob	Eleff		Regulated Industries Cmte	100 Rev Dr Martin Luther King Jr Blvd Room 600 St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Pam	Fergen		Henepin County Government Center CAO	A2000 300 S. Sixth Street Minneapolis, MN 55487	Paper Service	No	SPL_SL_11-852_Interested Parties
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	SPL_SL_11-852_Interested Parties
Henry	Fischer	terry.grabau@ecemn.com	East Central Energy	412 North Main Braham, MN 550060039	Paper Service	No	SPL_SL_11-852_Interested Parties
Lori	Frisk Thompson	lorift@utplus.com	Central Minnesota Municipal Power Agency	459 S Grove St Blue Earth, MN 56013	Electronic Service	No	SPL_SL_11-852_Interested Parties
John	Fuller		MN Senate	75 Rev Dr Martin Luther King Jr Blvd Room G-17 St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Edward	Garvey	garveyed@aol.com		32 Lawton Street St. Paul, MN 55102	Paper Service	No	SPL_SL_11-852_Interested Parties
Darrell	Gerber		Clean Water Action Alliance of Minnesota	308 Hennepin Ave. E. Minneapolis, MN 55414	Paper Service	No	SPL_SL_11-852_Interested Parties
Ronald	Giteck	ron.giteck@ag.state.mn.us	Office of the Attorney General-RUD	Antitrust and Utilities Division 445 Minnesota Street, 1400 BRM Tower St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Elizabeth	Goodpaster	bgoodpaster@mncenter.org	MN Center for Environmental Advocacy	Suite 206 26 East Exchange Street St. Paul, MN 551011667	Paper Service	No	SPL_SL_11-852_Interested Parties
Bryan	Gower	N/A	APX, Inc.	224 Airport Parkway Suite 600 San Jose, CA 95110	Paper Service	No	SPL_SL_11-852_Interested Parties
Michael R.	Gravelle	michael.gravelle@avantenergy.com	Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Todd J.	Guerrero	tguerrero@fredlaw.com	Fredrikson & Byron, P.A.	Suite 4000 200 South Sixth Street Minneapolis, MN 554021425	Electronic Service	No	SPL_SL_11-852_Interested Parties
Burl W.	Haar	burl.haar@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Ronald	Harper	rharper@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 585030564	Paper Service	No	SPL_SL_11-852_Interested Parties
Bill	Heaney	billheaney@billheaney.com	IBEW Minnesota State Council	P. O. Box 65397 St. Paul, MN 551550397	Paper Service	No	SPL_SL_11-852_Interested Parties
John	Helmers	helmers.john@co.olmsted.mn.us	Olmsted County Waste to Energy	2122 Campus Drive SE Rochester, MN 55904-4744	Electronic Service	No	SPL_SL_11-852_Interested Parties
Annete	Henkel	mui@mnutilityinvestors.org	Minnesota Utility Investors	413 Wacouta Street #230 St.Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
Ashley	Houston			120 Fairway Rd Chestnut Hill, MA 24671850	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Lori	Hoyum	lhoyum@mnpower.com	Minnesota Power	30 West Superior Street Duluth, MN 55802	Electronic Service	No	SPL_SL_11-852_Interested Parties
Casey	Jacobson	cjacobson@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 58501	Paper Service	No	SPL_SL_11-852_Interested Parties
Amanda A	James	AmandaJames@alliantenergy.com	Interstate Power & Light Company - Gas	200 First St SE PO Box 351 Cedar Rapids, IA 52401-0351	Paper Service	No	SPL_SL_11-852_Interested Parties
Larry	Johnston	lw.johnston@smmpa.org	SMMPA	500 1st Ave SW Rochester, MN 55902-3303	Paper Service	No	SPL_SL_11-852_Interested Parties
Nancy	Kelly	nkelly@greeninstitute.org	The Green Institute	#110 2801 21st Avenue Minneapolis, MN 55407	Electronic Service	No	SPL_SL_11-852_Interested Parties
Julie	Ketchum		Waste Management	1901 Ames Drive Burnsville, MN 55306	Paper Service	No	SPL_SL_11-852_Interested Parties
Hank	Koegel	N/A	enXco	10 Second St., NE, Ste 107 Minneapolis, MN 55413	Paper Service	No	SPL_SL_11-852_Interested Parties
Nancy	Lange	nlange@iwla.org	Izaak Walton League of America	Suite 202 1619 Dayton Avenue St. Paul, MN 55104	Paper Service	No	SPL_SL_11-852_Interested Parties
Douglas	Larson	dlarson@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	SPL_SL_11-852_Interested Parties
Robert S	Lee	RSL@MCMLAW.COM	Mackall Crounse & Moore Law Offices	1400 AT&T Tower 901 Marquette Ave Minneapolis, MN 554022859	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Deborah Fohr	Levchak	dlevchak@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 585030564	Paper Service	No	SPL_SL_11-852_Interested Parties
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	900 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	SPL_SL_11-852_Interested Parties
Mark	Lindquist		The Minnesota Project	1026 North Washington Street New Ulm, MN 56073	Paper Service	No	SPL_SL_11-852_Interested Parties
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E St. Paul, MN 55106	Paper Service	No	SPL_SL_11-852_Interested Parties
Mike	McDowell		Heartland Consumers Power District	PO Box 248 Madison, SD 570420248	Paper Service	No	SPL_SL_11-852_Interested Parties
Dave	McNary		Hennepin County DES	417 N. Fifth Street Minneapolis, MN 55401	Paper Service	No	SPL_SL_11-852_Interested Parties
John	McWilliams	jmm@dairynet.com	Dairyland Power Cooperative	3200 East Ave SPO Box 817 La Crosse, WI 54601-7227	Electronic Service	No	SPL_SL_11-852_Interested Parties
Valerie	Means	meansv@moss-barnett.com	Moss-Barnett	4800 Wells Fargo Center 90 South Seventh Street Minneapolis, MN 55402	Electronic Service	No	SPL_SL_11-852_Interested Parties
Brian	Meloy	brian.meloy@leonard.com	Leonard, Street & Deinard	150 S 5th St Ste 2300 Minneapolis, MN 55402	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Peder	Mewis	Peder.Mewis@senate.mn	Senate Energy, Util and Telecom Committee	Room 322, State Capitol 75 Rev. Dr. Martin Luther King Jr. Blvd. St. Paul, MN 55155-1606	Paper Service	No	SPL_SL_11-852_Interested Parties
Carl	Michaud	carl.michaud@co.hennepin.mn.us	Hennepin County DES	417 N. Fifth Street #200 Minneapolis, MN 554013206	Paper Service	No	SPL_SL_11-852_Interested Parties
Stacy	Miller	stacy.miller@state.mn.us	Office of Energy Security	State Energy Office 85 7th Place East, Suite 500 St. Paul, MN 55101	Paper Service	No	SPL_SL_11-852_Interested Parties
David	Moeller	dmoeller@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022093	Electronic Service	No	SPL_SL_11-852_Interested Parties
Andrew	Moratzka	apm@mcmlaw.com	Mackall, Crounse and Moore	1400 AT&T Tower 901 Marquette Ave Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Bryan	Morlock	bmorlock@otpco.com	Otter Tail Power Company	215 South Cascade Street Box 496 Fergus Falls, MN 565380496	Electronic Service	No	SPL_SL_11-852_Interested Parties
Carl	Nelson	cnelson@mncee.org	Center for Energy and Environment	212 3rd Ave N Ste 560 Minneapolis, MN 55401	Electronic Service	No	SPL_SL_11-852_Interested Parties
David W.	Niles		Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Thomas L.	Osteraas	tomosteraas@excelsiorenergy.com	Excelsior Energy	225 S 6th St Ste 1730 Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Greg	Oxley	N/A	MMUA	3025 Harbor Ln N Ste 400 Plymouth, MN 55447-5142	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Joshua	Pearson	N/A	enXco, Inc.	15445 Innovation Drive San Diego, CA 92128	Paper Service	No	SPL_SL_11-852_Interested Parties
Mary Beth	Peranteau	mperanteau@wheelerlaw.com	Wheeler Van Sickle & Anderson SC	Suite 801 25 West Main Street Madison, WI 537033398	Paper Service	No	SPL_SL_11-852_Interested Parties
Randall	Porter		Avant Energy Services	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties
Kent	Ragsdale	kentragsdale@alliantenergy.com	Alliant Energy-Interstate Power and Light Company	P.O. Box 351 200 First Street, SE Cedar Rapids, IA 524060351	Paper Service	No	SPL_SL_11-852_Interested Parties
John C.	Reinhardt		Laura A. Reinhardt	3552 26Th Avenue South Minneapolis, MN 55406	Paper Service	No	SPL_SL_11-852_Interested Parties
Kevin	Reuther		MN Center for Environmental Advocacy	Suite 206 26 East Exchange Street St. Paul, MN 551011667	Paper Service	No	SPL_SL_11-852_Interested Parties
Trudy	Richter	trichter@rranow.com	Minnesota Resource Recovery Assn.	477 Selby Avenue St. Paul, MN 55102	Paper Service	No	SPL_SL_11-852_Interested Parties
Amy	Rudolph	Amy.Rudolph@house.mn	House Env, Energy & Natural Res Committee	Rom 363, State Office Bldg. 100 Rev. Dr. Martin Luther King Jr. Blvd. St. Paul, MN 55155	Paper Service	No	SPL_SL_11-852_Interested Parties
Robert K.	Sahr	bsahr@eastriver.coop	East River Electric Power Cooperative	P.O. Box 227 Madison, SD 57042	Electronic Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Raymond	Sand	rms@dairynet.com	Dairyland Power Cooperative	P.O. Box 8173200 East Avenue South LaCrosse, WI 546020817	Electronic Service	No	SPL_SL_11-852_Interested Parties
Richard	Savelkoul	rsavelkoul@felhaber.com	Felhaber, Larson, Fenlon & Vogt, P.A.	444 Cedar St Ste 2100 St. Paul, MN 55101-2136	Paper Service	No	SPL_SL_11-852_Interested Parties
Matthew J.	Schuerger P.E.		Energy Systems Consulting Services, LLC	P.O. Box 16129 St. Paul, MN 55116	Paper Service	No	SPL_SL_11-852_Interested Parties
Robert H.	Schulte	rhs@schulteassociates.com	Schulte Associates LLC	15347 Boulder Pointe Road Eden Prairie, MN 55347	Paper Service	No	SPL_SL_11-852_Interested Parties
Dean	Sedgwick		Itasca Power Company	PO Box 457 Spring Lake, MN 566800457	Paper Service	No	SPL_SL_11-852_Interested Parties
Mrg	Simon	mrgsimon@mrenergy.com	Missouri River Energy Services	3724 W. Avera Drive P.O. Box 88920 Sioux Falls, SD 571098920	Electronic Service	No	SPL_SL_11-852_Interested Parties
Beth H.	Soholt	bsoholt@windonthewires.org	Wind on the Wires	Suite 203 1619 Dayton Avenue St. Paul, MN 551046206	Paper Service	No	SPL_SL_11-852_Interested Parties
Dale	Sollom	dsollom@minnkota.com	Minnkota Power Cooperative, Inc.	PO Box 13200 Grand Forks, ND 58208-3200	Electronic Service	No	SPL_SL_11-852_Interested Parties
David	Strom	davids@mnfmi.org	Minnesota Free Market Institute	P.O. Box 120449 St. Paul, MN 55112	Paper Service	No	SPL_SL_11-852_Interested Parties
James M.	Strommen	jstrommen@kennedy-graven.com	Kennedy & Graven, Chartered	470 U.S. Bank Plaza 200 South Sixth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	SPL_SL_11-852_Interested Parties
Linda	Taylor	taylor@fresh-energy.org	Fresh Energy	408 St Peter St Suite 220 St. Paul, MN 55102-1125	Electronic Service	No	SPL_SL_11-852_Interested Parties
Steve	Thompson		Central Minnesota Municipal Power Agency	459 S Grove St Blue Earth, MN 56013-2629	Paper Service	No	SPL_SL_11-852_Interested Parties
SaGonna	Thompson	Regulatory.Records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	SPL_SL_11-852_Interested Parties
Douglas	Tiffany	tiffa002@umn.edu	University of Minnesota	316d Ruttan Hall 1994 Buford Avenue St. Paul, MN 55108	Paper Service	No	SPL_SL_11-852_Interested Parties
Pat	Treseler	pat.jcplaw@comcast.net	Paulson Law Office LTD	Suite 325 7301 Ohms Lane Edina, MN 55439	Electronic Service	No	SPL_SL_11-852_Interested Parties
Darryl	Tveitbakk		Northern Municipal Power Agency	123 Second Street West Thief River Falls, MN 56701	Paper Service	No	SPL_SL_11-852_Interested Parties
Roger	Warehime	warehimer@owatonnautilities.com	Owatonna Public Utilities	208 South WalnutPO Box 800 Owatonna, MN 55060	Paper Service	No	SPL_SL_11-852_Interested Parties
Paul	White	paul@projectresources.net	Project Resources Corp.	618 Second Avenue SE Minneapolis, MN 55414	Paper Service	No	SPL_SL_11-852_Interested Parties
Robyn	Woeste	robynwoeste@alliantenergy.com	Interstate Power and Light Company	P.O. Box 351 200 First St SE Cedar Rapids, IA 524060351	Paper Service	No	SPL_SL_11-852_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Thomas J.	Zaremba		WHEELER, VAN SICKLE & ANDERSON	Suite 801 25 West Main Street Madison, WI 537033398	Paper Service	No	SPL_SL_11-852_Interested Parties