BEFORE THE MINNESOTA OFFICE OF ADMINISTRATIVE HEARINGS
600 North Robert Street
St. Paul, MN 55101

FOR THE MINNESOTA PUBLIC UTILITIES COMMISSION
121 Seventh Place East, Suite 350
St Paul, MN 55101-2147

IN THE MATTER OF THE PETITION OF NORTHERN STATES POWER COMPANY D/B/A XCEL ENERGY FOR APPROVAL OF COMPETITIVE RESOURCE ACQUISITION PROPOSAL AND CERTIFICATE OF NEED

MPUC Docket No. E002/CN-12-1240
OAH Docket No. 8-2500-30760

DIRECT PUBLIC ATTACHMENTS OF SACHIN SHAH

ON BEHALF OF

THE MINNESOTA DEPARTMENT OF COMMERCE, DIVISION OF ENERGY RESOURCES

SEPTEMBER 27, 2013

Sachin Shah
Minnesota Department of Commerce,
Division of Energy Resources
85 7th Place East, Suite 500
St. Paul, MN55101-2198

EDUCATION

- University of North Carolina-Charlotte, Master of Science, Economics, 1996.
- University of North Carolina-Charlotte, Bachelor of Arts, Major in Economics and Minor in Political Science, 1993

Prior to joining the Office of Energy Security from January, 1998 till July, 1999, I worked at a CPA firm in St. Louis where I prepared tax returns and maintained clients' general ledger databases. After leaving the CPA firm I worked as Brokerage Service Associate with American Express Financial Advisors. I Assisted clients and financial advisors with their brokerage account service needs via telephone, provided basic financial market information and processed securities transactions and payment requests. Obtained Series 7 securities registration / license.

EXPERIENCE AT DEPARTMENT OF COMMERCE, DIVISION OF ENERGY RESOURCES

I have been employed as a Rates Analyst with the Department of Commerce, Division of Energy Resources (DOC-DER) since February, 2000. During my time with the Department of Commerce, Division of Energy Resources I have been assigned a wide variety of filings dealing with a number of different issues. For example:

As a rates analyst for the Department of Commerce, Division of Energy Resources, my duties have included evaluating comments on different issues, such as investigating and filing testimony and comments for forecasting in:

- UtiliCorp United Inc.'s Request for an Increase in Rates in Docket No. G007,011 /GR-00-951;
- Great Plains Request for an Increase in Rates in Docket No. G004/GR-02-1682;
- Hutchinson Utilities Commission's Certificate of Need proceeding in Docket No. G252/CN-01-1826;
- Dakota Electric's Request for an Increase in Rates in Docket No. E 111/GR-03-261;
- Interstate Power and Light Companv's Request for an Increase in Electric Rates in Docket No. E001/GR-03-767;
- CenterPoint Energy Minnegasco, a Division of CenterPoint Resources Corp., Request for an Increase in Rates in Docket No. G008/GR-04-901;
- Northern States Power Company d/b/a Xcel Energy Request for an Increase in Rates in Docket No. G002/GR-04-1511;
- Montana Dakota Utilities d/b/a Great Plains Request for an Increase in Rates in Docket No. G004/GR-04-1487;
- Alliant Energy d/b/a Interstate Power and Light Company’s Resource Plan in Docket No. E001/RP-05-2029;
- Great River Energy’s Resource Plan in Docket No. ET2/RP-08-784;
- Dakota Electric's Request for an Increase in Rates in Docket No. E 111/GR-09-175;
- Northern States Power Company d/b/a Xcel Energy Request for an Increase in Rates in Docket No. G002/GR-09-1153;
- Interstate Power and Light Companv's Request for an Increase in Electric Rates in Docket No. E001/GR-10-276;
- Alliant Energy d/b/a Interstate Power and Light Company’s Resource Plan in Docket No. E001/RP-08-673;
- Minnesota Power and Great River Energy’s Certificate of Need proceeding in Docket No. ET2, E015/CN-10-973;
- Xcel Energy’s Certificate of Need proceeding in Docket No. E002/CN-11-332;
- Xcel Energy’s Certificate of Need proceeding in Docket No. E002/CN-12-113; and
- Minnesota Power’s Resource Plan in Docket No. E015/RP-13-53.

My duties have also included reviewing miscellaneous rate and fuel procurement filings involving gas utilities, for example, evaluating Demand Entitlement and True-up filings. 1 was previously responsible for producing the Quarterly PGA summary, and producing and coordinating the publication of the DOC-DER's Annual Fuel Reports (Gas). I have also provided testimony on natural gas in The Matter of Application of Mankato Energy Center, LLC, A Wholly Owned Subsidiary of Calpine Corporation, for a Certificate of Need for A Large Electric Generating Facility in Docket No. IP6345/CN-03-1884.

SEMINARS

National Association of Regulatory Utility- Commissioners' 42ntI Annual Regulatory Studies Program, Institute of Public Utilities, Michigan State University, 2000

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☐ **Public Document – Trade Secret Data Excised**
☒ **Public Document**

Xcel Energy
Docket No.: E002/CN-12-1240
Response To: Department of Commerce Information Request No. 009
Requestor: Sachin Shah & Steve Rakow
Date Received: June 13, 2013

Question:

Subject: Xcel Energy -- Northern States Power Company, A Minnesota Corporation (Xcel Energy, NSP or Company) Energy and Demand Forecasts

In Docket No. E002/CN-12-1240, the Company in its Certificate of Need (CN) filing, indicates development of the "Spring 2013, Fall 2012 and Spring 2012" forecast(s).

(A) Please provide all of the charts (Figures 1-1, 3-1, 3-2, and 3-3) and associated data used to produce these charts in the petition, in an electronic format.

(B) Using the "Fall 2011" forecast, along with the adjustments recommended by the Department for the peak demand forecast and approved by the Minnesota Public Utilities Commission (PUC) in the IRP proceeding as a basis, are all of the methodology and models used to develop the above referenced forecast(s) consistent with the approved forecast?

Where applicable for any and all parts above, please provide the requested data in a Microsoft Excel executable format with all links and formulae intact. If any of these links target an outside file, please provide all such additional files.

In addition, whenever acronyms are used in the data given in your response above, please provide an explanation of all acronyms used AND also provide a brief but complete explanation of the source of each data series that is provided.

If this information has already been provided in written testimony, filing, or in response to an earlier Department of Commerce (DOC) information request, please identify the specific testimony, and/or filing cite(s) or DOC information request number(s).

Response:

A) Attachment A provides the data used to produce the Figures 1-1, 3-1, 3-2 and 3-3. Note – Figure 3-3 is the same as 1-1.

B) No. Changes to the models and methodology are described below.

Model Changes

The Fall 2011 forecast models included historical data for January 1998 through July 2011.

The Spring 2012 forecast models included historical data for January 1998 through December 2011 for North Dakota, South Dakota, Wisconsin and Michigan. The models for Minnesota and the system peak demand included historical data for January 1998 through February 2012.

The Fall 2012 forecast models included historical data for January 1998 through June 2012.

The Spring 2013 forecast models included historical data for January 1998 through December 2012.

Attachment B provides all changes made to the regression models used to develop the Spring 2012, Fall 2012 and Spring 2013 forecasts, as compared to the Fall 2011 forecast.

Methodology Changes

Peak Demand Model
For the Spring 2013 forecast, the NSP system peak demand model was changed to be a retail only model to represent future demand without firm wholesale load.

Demand-Side Management (DSM)
The Fall 2011 forecast included adjustments for incremental DSM savings for Minnesota and total system peak demand.

The Spring 2012, Fall 2012 and Spring 2013 forecasts included adjustments for incremental DSM savings for Minnesota, South Dakota and total system peak demand.

The Fall 2011 forecast included an electric price forecast for Minnesota and North Dakota based on the U.S. Wholesale Price Index for electricity.

The Spring 2012 forecast included an electric price forecast for North Dakota based on the U.S. Wholesale Price Index for electricity and an electric price forecast for Minnesota based on the Company's Strategist model.

The Fall 2012 and Spring 2013 forecasts included an electric price forecast for Minnesota and North Dakota based on the Company's Strategist model.

Exogenous Adjustments

The Fall 2011 forecast included exogenous adjustments to these regression models:

- Minnesota Large C/I sales were adjusted to account for the closure and partial shutdown of large industrial customers.
- Wisconsin Large C/I sales were adjusted to account for operational changes of a large industrial customer.

The Spring 2012 forecast included exogenous adjustments to these regression models:

- Minnesota Large C/I sales were adjusted to account for the closure and partial shutdown of large industrial customers and operational changes for several other large industrial customers.
- Wisconsin Large C/I sales were adjusted to account for operational changes of an existing large industrial customer and new large industrial loads.
- NSP system Peak Demand was adjusted to account for changes in Minnesota and Wisconsin Large C/I load and the termination of firm wholesale contracts.

The Fall 2012 forecast included exogenous adjustments to these regression models:

- Minnesota Large C/I sales were adjusted to account for the complete shutdown of a large industrial customer and operational changes for several other large industrial customers.
- Wisconsin Large C/I sales were adjusted to account for operational changes of a large industrial customer and new large industrial loads.
- NSP system Peak Demand was adjusted to account for changes in Minnesota and Wisconsin Large C/I load and the termination of firm wholesale contracts.

The Spring 2013 forecast included exogenous adjustments to these regression models:

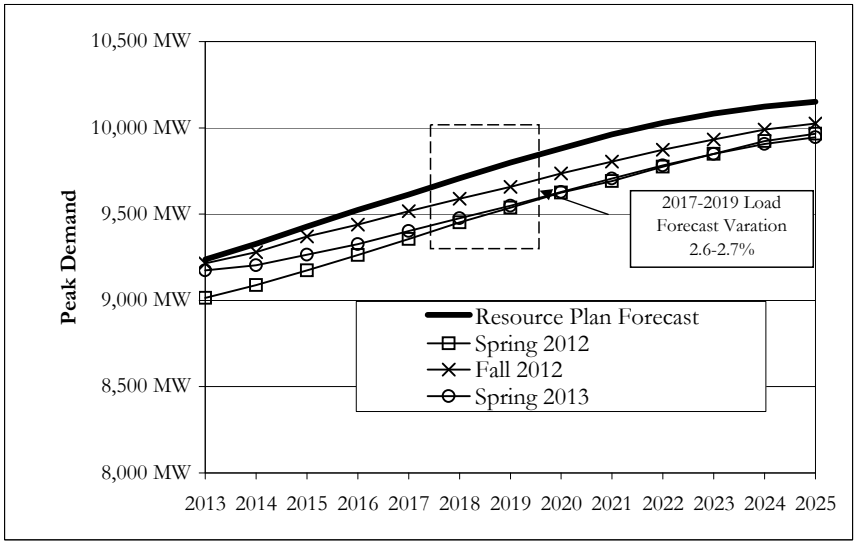
- Minnesota Large C/I sales were adjusted to account for operational changes of several large industrial customers.
- Wisconsin Large C/I sales were adjusted to account for operational changes of several large industrial customers and new large industrial loads.

- NSP system Peak Demand was adjusted to account for changes in Minnesota and Wisconsin Large C/I load and to add the remaining firm wholesale customer load.

Preparer:	Steve Wishart/Jannell Marks
Title:	Director/Director
Department:	Resource Planning/Sales, Energy and Demand Forecasting
Telephone:	612-330-6128/303-571-6254
Date:	June 25, 2013

NSP System Base Peak Demand (Uninterrupted)

		Actual Uninterupted Peaks	Weather Normalized Peaks	Resource Plan Forecast
	2000	8,189	8,468	
	2001	9,236	8,353	
	2002	8,924	8,768	
1	2003	8,868	8,814	
2	2004	8,655	8,876	
3	2005	9,104	8,958	
4	2006	9,859	9,095	
5	2007	9,473	9,267	
6	2008	8,694	9,173	
7	2009	8,609	8,879	
8	2010	9,131	9,021	
9	2011	9,623	8,989	
10	2012	9,475	9,237	

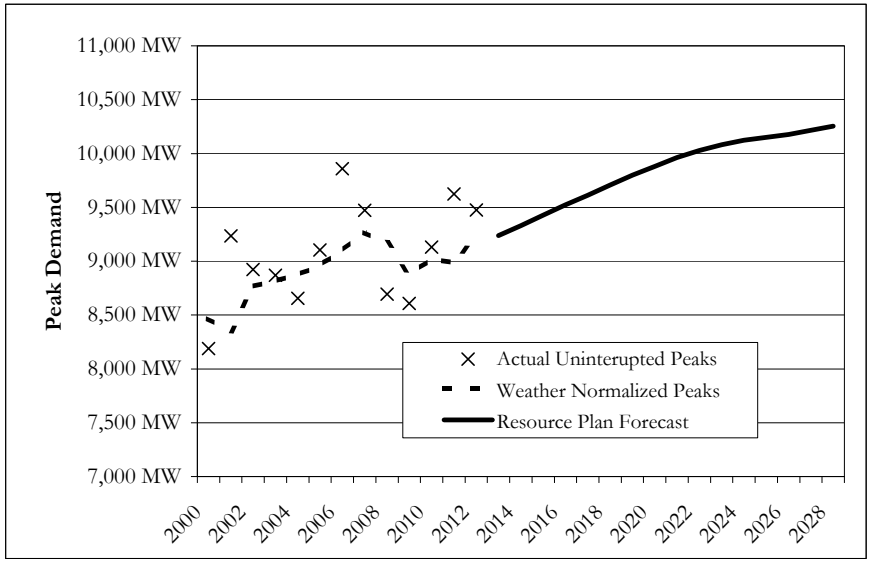


			Spring 2012	Fall 2012	Spring 2013
1	2013	9,237	9,014	9,215	9,174
2	2014	9,328	9,089	9,280	9,203
3	2015	9,428	9,174	9,370	9,264
4	2016	9,524	9,263	9,440	9,326
5	2017	9,613	9,355	9,517	9,401
6	2018	9,708	9,452	9,589	9,477
	2019	9,799	9,537	9,658	9,549
	2020	9,881	9,624	9,736	9,629
	2021	9,963	9,692	9,804	9,705
	2022	10,029	9,775	9,874	9,782
	2023	10,082	9,850	9,933	9,848
	2024	10,123	9,922	9,990	9,906
	2025	10,151	9,966	10,026	9,946

	Fall 2011	Spring 2013	Change		
2013	9,237 MW	9,174 MW	(63MW)	223	2.4%
2014	9,328 MW	9,203 MW	(125MW)	240	2.6%
2015	9,428 MW	9,264 MW	(164MW)	255	2.7%
2016	9,524 MW	9,326 MW	(198MW)	261	2.7%
2017	9,613 MW	9,401 MW	(211MW)	258	2.7%
2018	9,708 MW	9,477 MW	(231MW)	257	2.6%
2019	9,799 MW	9,549 MW	(250MW)	262	2.7%
2020	9,881 MW	9,629 MW	(252MW)	257	2.6%
2021	9,963 MW	9,705 MW	(258MW)	271	2.7%
2022	10,029 MW	9,782 MW	(247MW)	254	2.5%
2023	10,082 MW	9,848 MW	(234MW)	234	2.3%
2024	10,123 MW	9,906 MW	(217MW)	217	2.1%
2025	10,151 MW	9,946 MW	(205MW)	205	2.0%

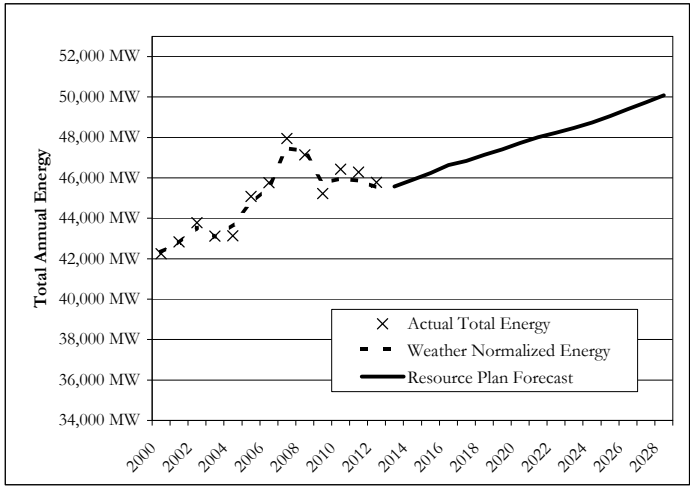
NSP System Base Peak Demand (Uninterrupted)

		Actual Uninterupted Peaks	Weather Normalized Peaks	Resource Plan Forecast			Actual Uninterupted Peaks	Weather Normalized Peaks
	2000	8,189	8,468		10yr	MIN	8,609	8,814
	2001	9,236	8,353		10yr	MAX	9,859	9,267
	2002	8,924	8,768				1,250	453
1	2003	8,868	8,814					
2	2004	8,655	8,876					
3	2005	9,104	8,958					
4	2006	9,859	9,095					
5	2007	9,473	9,267					
6	2008	8,694	9,173					
7	2009	8,609	8,879					
8	2010	9,131	9,021					
9	2011	9,623	8,989					
10	2012	9,475	9,237		2013-2020 CAGR			
1	2013			9,237	1.0%			
2	2014			9,328				
3	2015			9,428				
4	2016			9,524				
5	2017			9,613				
6	2018			9,708				
	2019			9,799				
	2020			9,881		9,829	9,881	52.2	
	2021			9,963		9,907	9,963	56.4	8%
	2022			10,029		9,969	10,029	60.6	7%
	2023			10,082		10,017	10,082	65.3	8%
	2024			10,123		10,055	10,123	68.5	5%
	2025			10,151		10,078	10,151	72.6	6%
	2026			10,177		10,099	10,177	77.2	6%
	2027			10,216		10,134	10,233	82.4	7%
	2028			10,254		10,166	10,270	88.0	7%
	2029			10,292		10,198	10,308	93.9	7%
	2030			10,338		10,238	10,353	100.2	7%



NSP Total Annual Energy

	Actual Total Energy	Weather Normalized Energy	Resource Plan Forecast	
2000	42,242	42,336		42.24154
2001	42,830	42,775		42.82976
2002	43,780	43,558		43.78008
2003	43,115	43,066		43.11481
2004	43,130	43,710		43.13025
2005	45,078	44,731		45.07755
2006	45,759	45,562		45.75882
2007	47,951	47,481		47.95126
2008	47,145	47,324		
2009	45,224	45,748		
2010	46,422	45,977		
2011	46,286	45,865		
2012	45,786	45,526		2013-2020 CAGR
2013			45,569	0.7%
2014			45,901	
2015			46,243	
2016			46,628	
2017			46,838	
2018			47,137	
2019			47,416	
2020			47,720	47,720
2021			48,020	48,020
2022			48,236	48,236
2023			48,466	48,466
2024			48,747	48,747
2025			49,060	49,060
2026			49,404	49,404
2027			49,738	49,738
2028			50,089	50,089



2,000	42,241,544	94,425	42,335,969
2,001	42,829,758	(55,171)	42,774,587
2,002	43,780,084	(222,173)	43,557,912
2,003	43,114,810	(48,953)	43,065,857
2,004	43,130,251	579,695	43,709,946
2,005	45,077,547	(346,937)	44,730,610
2,006	45,758,815	(197,093)	45,561,722
2,007	47,951,259	(470,557)	47,480,702
2,008	47,144,934	179,243	47,324,178
2,009	45,224,347	523,763	45,748,110
2,010	46,422,293	(445,421)	45,976,872
2,011	46,286,487	(421,578)	45,864,909
2,012	45,785,837	(259,891)	45,525,945

Comparison of Spring 2012, Fall 2012 and Spring 2013 Forecast Models with Fall 2011 Forecast Models

Model	Spring 2012 Forecast	Fall 2012 Forecast	Spring 2013 Forecast
Minnesota Residential without Space Heating Customers	No changes	No changes	No changes
Minnesota Residential Heating Customers	No changes	Added first order seasonal autoregressive term	Replaced Minneapolis-St. Paul Households with Minnesota Households; Added first order seasonal autoregressive term
Minnesota Small C/I Customers	No changes	No changes	No changes
Minnesota Large C/I Customers	No changes	No changes	No changes
Minnesota Street Lighting Customers	No changes	No changes	No changes
Minnesota Other Public Authority Customers	No changes	No changes	No changes
North Dakota Residential without Space Heating Customers	Added Binary variable for April & October 2005; Dropped first order seasonal autoregressive term	Added Binary variable for April & October 2005	Added Constant; Added Binary variable for April & October 2005
North Dakota Residential Space Heating Customers	Replaced North Dakota Households with North Dakota Population; Added Binary variables for July 2011, August 2011 and September/October 2011; Added second order autoregressive term; Dropped Binary variable for Minot flood	Replaced North Dakota Households with North Dakota Population	Added Constant Replaced North Dakota Households with North Dakota Population

Model	Spring 2012 Forecast	Fall 2012 Forecast	Spring 2013 Forecast
North Dakota Small C/I Customers	Added Binary variable for August 2011	Dropped North Dakota total Employment; Added Binary variable for August 2011	Dropped North Dakota total Employment; Added Binary variable for August 2011; Added first order moving average term
North Dakota Street Lighting Customers	No changes	Added Binary variable for after March 2012; Added first order moving average term	Added Binary variable for after March 2012; Added first order moving average term
North Dakota Other Public Authority Customers	No changes	No changes	No changes
South Dakota Total Residential Customers	No changes	No changes	No changes
South Dakota Residential without Space Heating Customers	No changes	No changes	No changes
South Dakota Small C/I Customers	No changes	No changes	No changes
South Dakota Street Lighting Customers	No changes	No changes	No changes
Wisconsin Residential Customers	Replaced Eau Claire Households with Wisconsin Population; Added Binary variable for April 1998; Dropped monthly CRS Binary variables; Dropped Binary variables for October 2000 and July 2002	Added Constant; Dropped monthly CRS Binary variables; Dropped Binary variables for October 2000 and July 2002	Dropped monthly CRS Binary variables except April; Added monthly Binary variables for March, April, May, September and October

Model	Spring 2012 Forecast	Fall 2012 Forecast	Spring 2013 Forecast
Wisconsin Small C/I Customers	Added Binary variable for pre-April 2000	Added Binary variable for pre-April 2000	Added Binary variable for pre-April 2000
Wisconsin Street Lighting Customers	No changes	No changes	Replaced Wisconsin Households with Eau Claire Households; Dropped monthly Binary variables
Wisconsin Other Public Authority Customers	No changes	No changes	No changes
Michigan Small C/I Customers	No changes	No changes	No changes
Minnesota Residential without Space Heating Sales	Replaced first order moving average term with first order autoregressive term	Added 12 month lag to Residential price term; Dropped Binary variable for CRS conversion; Replaced first order moving average term with first order autoregressive term	Added 12 month lag to Residential price term; Dropped Binary variable for CRS conversion; Replaced first order moving average term with first order autoregressive term
Minnesota Residential Space Heating Sales	Dropped Constant; Added heating index; Added Binary variable for CRS conversion	Dropped Constant; Added Binary variable for CRS conversion	Dropped Constant; Added Binary variable for CRS conversion
Minnesota Small C/I Sales	Added C/I real average price variable; Dropped combined weather variable for Jan, Feb, Nov and Dec and added weather variable for January and combined weather variable for Feb, Nov and Dec; Added IPTrend variable; Dropped first order seasonal autoregressive term and added first order seasonal moving average term	Added C/I real average price variable; Dropped combined weather variable for Jan, Feb, Nov and Dec and added weather variable for January and combined weather variable for Feb, Nov and Dec; Added IPTrend variable; Dropped first order seasonal autoregressive term and added first order seasonal moving average term	Added C/I real average price variable; Dropped combined weather variable for Jan, Feb, Nov and Dec and added weather variable for January and combined weather variable for Feb, Nov and Dec; Added IPTrend variable; Dropped first order seasonal autoregressive term

Model	Spring 2012 Forecast	Fall 2012 Forecast	Spring 2013 Forecast
Minnesota Large C/I Sales	Added C/I real average price variable	Added C/I real average price variable; Added Binary variable for Large C/I plant closings	Added C/I real average price variable; Added Binary variable for Large C/I plant closings; Added second Binary variable for additional impact from Large C/I plant closings
Minnesota Street Lighting Sales	Added Minnesota Street Lighting customers	No changes	No changes
Minnesota Other Public Authority Sales	Used trend model	Added Binary variable for after April 2011; Dropped Binary variables for September 2003, August 2005, June 2007, August 2001 and February 2005	Added Binary variable for after April 2011; Dropped Binary variables for September 2003, August 2005, June 2007, August 2001 and February 2005
North Dakota Residential without Space Heating Sales	Replaced Fargo real Personal Income with North Dakota real Person Income per Capita; Added second order moving average term	Replaced Fargo real Personal Income with North Dakota real Person Income per Capita; Added second order moving average term	Replaced Fargo real Personal Income with North Dakota real Person Income per Capita; Added second order moving average term
North Dakota Residential Heating Sales	No changes	No changes	No changes
North Dakota Small C/I Sales	No changes	No changes	No changes
North Dakota Large C/I Sales	No changes	No changes	Dropped all monthly Binary variables; Added seasonal Binary variables for Winter, Spring and Fall
North Dakota Street Lighting Sales	No changes	No changes	Added Binary variable for March 2010; Added first order seasonal autoregressive term
South Dakota Residential without Space Heating Sales	No changes	No changes	No changes

Model	Spring 2012 Forecast	Fall 2012 Forecast	Spring 2013 Forecast
South Dakota Residential Heating Sales	No changes	No changes	No changes
South Dakota Small C/I Sales	Replaced South Dakota Employment with Sioux Falls real Gross Metro Product; Dropped Binary variable for post-2008	Dropped Constant; Replaced South Dakota Employment with Sioux Falls real Gross Metro Product; Dropped Binary variable for post-2008	Dropped Constant; Replaced South Dakota Employment with Sioux Falls real Gross Metro Product; Dropped Binary variable for post-2008
South Dakota Street Lighting Sales	Used trend model	Used trend model	Added first order seasonal moving average term
Wisconsin Residential Sales	No changes	Replaced Eau Claire real Gross Metro Product with Eau Claire real Gross Metro Product per Household	Replaced Eau Claire real Gross Metro Product with Eau Claire real Gross Metro Product per Household; Dropped Binary variables for December 2004, April 2006 and October post-2006; Added first order moving average term
Wisconsin Small C/I Sales	No changes	Replaced Eau Claire real Gross Metro Product with Eau Claire Employment; Added monthly Binary variables for Apr, Nov and Dec; Dropped Binary variable for post-May 2009; Replaced first order seasonal moving average term with first order autoregressive term	Added monthly Binary variables for Apr, Nov and Dec; Dropped Binary variable for post-May 2009; Replaced first order seasonal moving average term with first order autoregressive term
Wisconsin Large C/I Sales	Replaced Eau Claire Employment with Wisconsin Industrial Production Index-Manufacturing	Replaced Eau Claire Employment with Wisconsin Industrial Production Index-Manufacturing	Replaced Eau Claire Employment with Wisconsin Industrial Production Index-Manufacturing

Model	Spring 2012 Forecast	Fall 2012 Forecast	Spring 2013 Forecast
Wisconsin Street Lighting Sales	Replaced Wisconsin Households with Eau Claire Households; Added Binary variable for after May 2010; Replaced first order autoregressive term with first order moving average term and first order seasonal moving average term	Replaced Wisconsin Households with Eau Claire Households; Added Binary variable for after May 2010; Replaced first order autoregressive term with first order moving average term and first order seasonal moving average term	Used trend model
Michigan Residential Sales	No changes	No changes	No changes
Michigan Small C/I Sales	No changes	No changes	Replaced Eau Claire Employment with Eau Claire real Gross Metro Product
Peak Demand	Dropped June Days over 90 variable; Replaced Manufacturing Slowdown variable with Employment/ Manufacturing Index	Dropped Winter Trend variable; Dropped monthly Binary variable for October; Dropped Binary variable for July 2009	Removed Wholesale energy and peak demand from historical data; Replaced THI12_Sep_Cust with THI15_Sep_Cust; Added Avg_Temp_Cust_Sh variable; Added variable to account for increasing efficiency in Residential base usage; Dropped Winter Trend variable; Dropped Binary variable for September 2008

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TRADE SECRET DATA EXCISED

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Xcel Energy
Docket No.: E002/CN-12-1240
Response To: Department of Commerce Information Request No. 011
Requestor: Sachin Shah & Steve Rakow
Date Received: June 13, 2013

Question:

Subject: Xcel Energy -- Northern States Power Company, A Minnesota Corporation (Xcel Energy, NSP or Company) Competitive Resource Acquisition Proceeding (C.R.A.P) bid.

In Docket No. E002/CN-12-1240, on page 1-11 the Company in part states the following:

> The unit will be fueled entirely by natural gas. Center Point Energy currently serves the Plant site. We plan to secure additional natural gas supply through a competitive process beginning in early 2014. We anticipate that the successful bidder may need to replace the existing pipeline serving the plant with a new higher pressure natural gas line from the Cedar Town Border station to the plant.

(A) To clarify, please explain in detail whether the plant site referenced above will have backup or dual fuel capabilities.

(B) Please identify and explain the size and type of interstate pipeline that the above referenced Town Border Station (TBS) connects to and the existing pressure requirements of the natural gas line serving the plant.

(C) What are the pressure requirements of the replacement pipeline that will eventually serve the plant and referenced above?

(D) Have there been any interstate pipeline [identified in part (B) above] constraints, either downstream or upstream of the TBS referenced and mentioned above?

Where applicable for any and all parts above, please provide the requested data in both a Microsoft Word and Adobe PDF format with all links and formulae intact. If any of these links target an outside file, please provide all such additional files.

In addition, whenever acronyms are used in the data given in your response above, please provide an explanation of all acronyms used AND also provide a brief but complete explanation of the source of each data series that is provided.

If this information has already been provided in written testimony, filing, or in response to an earlier Department of Commerce (DOC) information request, please identify the specific testimony, and/or filing cite(s) or DOC information request number(s).

Response:

(A) There are no plans for dual fuel or oil backup at the Black Dog plant site.

(B) Northern Natural Gas (NNG) has 16" and 26" pipelines that deliver gas to the Cedar Town Border Station (TBS). These pipelines deliver gas to the NSP St. Paul local distribution system and to the High Bridge power plant with a 650 psi delivery pressure guarantee from NNG. NNG also delivers gas to a CenterPoint gas line that serves Black Dog. Current pressure for that delivery is roughly 400 psi, but the delivery pressure may be increased with adequate notice.

(C) If it is determined that the existing gas line to Black Dog cannot handle the higher pressure requirement, a short, new pipeline to take gas from NNG at 650 psi pressure and deliver it to the Black Dog facility may need to be constructed to deliver gas at a regulated pressure of 525 psi at the inlet of the Black Dog power plant.

(D) Yes, there have been constraints from time to time. However, the Black Dog plant has been unaffected, since NSP holds firm transportation on these lines for its existing plant capacity. **[BEGIN TRADE SECRET:**

END TRADE SECRET]. All the potential costs associated with upgrading the gas pipeline facilities to the Black Dog plant are reflected in the fixed portion of the estimated gas transport costs included in the Black Dog expansion model submitted with NSP's bid.

Please note that portions of this response are marked as "Public – Trade Secret

Data Excised" and should be treated as confidential. The response contains information the Company considers to be trade secret data as defined by Minn. Stat. §13.37(1)(b), including business and financial information that the Company does not publicly disclose. Thus, Xcel Energy maintains this information as trade secret.

Preparer:	Curt Dallinger/Greg Ford
Title:	Director-Gas Resource Planning/Director-Engineering & Design
Department:	Gas Planning/Engineering and Construction
Telephone:	303-571-2784/612-330-5696
Date:	July 23, 2013

☐ **Non Public Document – Contains Trade Secret Data**
☐ **Public Document – Trade Secret Data Excised**
☒ **Public Document**

Xcel Energy
Docket No.: E002/CN-12-1240
Response To: Department of Commerce Information Request No. 012
Requestor: Sachin Shah & Steve Rakow
Date Received: June 13, 2013

Question:

Subject: Xcel Energy -- Northern States Power Company, A Minnesota Corporation (Xcel Energy, NSP or Company) Competitive Resource Acquisition Proceeding (C.R.A.P) bid.

In Docket No. E002/CN-12-1240, on page 1-11 the Company in part states the following:

> The unit will be fueled entirely by natural gas. Center Point Energy currently serves the Plant site. We plan to secure additional natural gas supply through a competitive process beginning in early 2014. We anticipate that the successful bidder may need to replace the existing pipeline serving the plant with a new higher pressure natural gas line from the Cedar Town Border station to the plant.

(A) Please fully explain and provide the evaluation criteria that will be utilized by the Company in its competitive process referenced above and any (and all) information necessary to analyze the data.

Where applicable for any and all parts above, please provide the requested data in both a Microsoft Word and Adobe PDF format with all links and formulae intact. If any of these links target an outside file, please provide all such additional files.

In addition, whenever acronyms are used in the data given in your response above, please provide an explanation of all acronyms used AND also provide a brief but complete explanation of the source of each data series that is provided.

If this information has already been provided in written testimony, filing, or in response to an earlier Department of Commerce (DOC) information request, please identify the specific testimony, and/or filing cite(s) or DOC information request number(s).

Response:

(A) The new generation proposed at the Black Dog site may require the construction of new pipeline facilities as described in NSP's response to DOC-011. If that is the case, the Company plans to issue a Request for Proposal for gas transportation services from the NNG Cedar Town Border Station to the Black Dog power plant. The specifications in the RFP will include the 650 psi pressure guarantee from NNG at the Cedar Town Border Station, the required regulated delivery pressure of 525 psi pressure at the inlet to the Black Dog plant, the required date for the first delivery of gas and the flow rate required to operate the new power plant. The proposals will be evaluated to ensure that the bidder has the appropriate financial backing, technical experience, and that it meets the RFP specifications. Once these preliminary requirements are met, then the bids will be evaluated for price over the term of the agreement.

Preparer:	Curtis Dallinger
Title:	Director, Gas Supply Planning
Department:	Fuels
Telephone:	303-571-2784
Date:	July 23, 2013

PUBLIC DOCUMENT:
TRADE SECRET DATA EXCISED
☐ **Non Public Document – Contains Trade Secret Data**
☐ **Public Document – Trade Secret Data Excised**
☒ **Public Document**

Xcel Energy
Docket No.: E002/CN-12-1240
Response To: Department of Commerce Information Request No. 015
Requestor: Sachin Shah & Steve Rakow
Date Received: June 13, 2013

Question:

Subject: Xcel Energy -- Northern States Power Company, A Minnesota Corporation (Xcel Energy, NSP or Company) Competitive Resource Acquisition Proceeding (C.R.A.P) bid.

In Docket No. E002/CN-12-1240, on page 4-9 the Company in part states the following:

> The combustion turbines will utilize natural gas as its fuel. The layout of the facility allows for addition of distillate oil storage and handling if a future need develops to have oil as the backup fuel. The Hankinson siting area is near the Alliance interstate gas pipeline. Multiple parties utilize this line to transport gas, and indicated a willingness and ability to provide gas service. We anticipate securing the necessary natural gas supply through a competitive process beginning in 2014. Water supply will either be from an on-site well or provided by truck.

Please fully explain how much Mcf of natural gas is expected to be used by the proposed Red River project facility (units 1 and 2) in each month of an average or projected year. As part of your response please include the following information:

1. Please fully explain the type of natural gas to be provided to the Red River units (i.e., Firm, Interruptible, or a combination of Firm and Interruptible).

2. Identify the amounts of each type of daily contracted gas that will be required.

3. Identify and explain in detail the amount and type of interstate pipeline transportation that will be required.

4. Identify and explain in detail the type of local pipeline distribution service that will be required.

5. Please identify and explain in detail the production simulation(s) (by vintage) that were used to estimate the natural gas consumption.

6. In addition please provide the following assumptions, including but not limited to the following, that are used to calculate the natural gas usage:

    i. Annual operating time;
    ii. How much Mcf is consumed for each Mwh produced;
    iii. Capacity factors; and
    iv. Any and all other information necessary to replicate the natural gas consumption.

Where applicable for any and all parts above, please provide the requested data in a Microsoft Excel executable format with all links and formulae intact. If any of these links target an outside file, please provide all such additional files.

In addition, whenever acronyms are used in the data given in your response above, please provide an explanation of all acronyms used AND also provide a brief but complete explanation of the source of each data series that is provided.

If this information has already been provided in written testimony, filing, or in response to an earlier Department of Commerce (DOC) information request, please identify the specific testimony, and/or filing cite(s) or DOC information request number(s).

Response:

1. Firm natural gas will be provided to the Red River site, and will be purchased from a shipper delivering gas from a receipt point either in Canada or North Dakota to the Chicago area using the Alliance pipeline. The Red River site is located downstream of these production areas and upstream of the primary market area in Chicago. The Chicago market is large and diverse with multiple connections providing for excellent liquidity. On an average day, the Alliance pipeline flows 1,600,000 MMcf/day through the proposed Red River site on the way to Chicago. NSP will purchase a small portion **[TRADE SECRET DATA BEGINS: TRADE SECRET DATA ENDS]** of the gas going through the Alliance pipeline and request delivery at the Red River site. Given the large quantity of gas transported by Alliance and the robust Chicago market, NSP will have more than enough liquidity to serve the Red River plant.

2. At this time, we anticipate working with several Alliance shippers using the process described in (1) above to determine the specific quantities. The quantities will vary from zero to **[TRADE SECRET DATA BEGINS: TRADE SECRET DATA ENDS]** as dispatched by MISO.

3. We anticipate that we will not be required to purchase gas transportation capacity on the Alliance pipeline as described in (1) above.

4. The final plant site has not been selected, but we anticipate that it will be close to the Alliance pipeline near the Hankinson electric substation. We have included the cost to build and operate a plant-owned gas pipeline between Alliance and the proposed Red River power plant site in the Red River expansion model submitted with NSP's bid. See NSP's response to DOC-0019(1) for details on the facilities and projected costs for that line.

5. The modeling tool used to develop production related detail is Strategist, with the model "vintage" approved on December 18, 2012.

6. Assumptions related to natural gas usage can be found in the following appendices of the original Petition in this Docket No. E002/CN-12-1240, date April 15, 2013
    a. Annual Operation Time – Appendix C, Table C4 – Expected Average Annual Capacity Factor
    b. Mcf/MWh – Appendix C, Table C1, Net Heat Rate (Btu/kWh)
    c. Unit Performance – Appendix C – Strategist Assumptions Documentation, Unit Performance and Cost Estimate
    d. Gas Supply Assumptions – Appendix C – Strategist Assumptions Documentation – Gas Supply

Please note that portions of this response are marked as "Public – Trade Secret Data Excised" and should be treated as confidential. The response contains information the Company considers to be trade secret data as defined by Minn. Stat. §13.37(1)(b), including business and financial information that the Company does not publicly disclose. Thus, Xcel Energy maintains this information as trade secret.

Preparer:	Curt Dallinger
Title:	Director, Gas Resource Planning
Department:	Fuels
Telephone:	303-571-2784
Date:	July 16, 2013

State of Minnesota
DEPARTMENT OF COMMERCE
DIVISION OF ENERGY RESOURCES

Utility Information Request

Docket Numbers: E002/CN-12-1240 Date of Request: June 28, 2013

Requested From: Brian M. Meloy
Leonard, Street and Deinard
(On behalf of Calpine Corp.)
Response Due: July 11, 2013

Analyst Requesting Information: Sachin Shah/Steve Rakow

Type of Inquiry:					
	[ ]	Financial	[ ]	Rate of Return	[ ] Rate Design
	[ ]	Engineering	[ ]	Forecasting	[ ] Conservation
	[ ]	Cost of Service	[ ]	CIP	[X] CN

If you feel your responses are trade secret or privileged, please indicate this on your response.

Request No.	
39	Subject: Information provided by Xcel Energy -- Northern States Power Company, A Minnesota Corporation (Xcel Energy, NSP or Company) in its *Petition to the Minnesota Public Utilities Commission Seeking Approval For A Competitive Resource Acquisition Proposal and For A Certificate of Need:* Subject: Information provided by Invenergy Thermal Development LLC in the bids: *Cannon Falls Peaking Expansion: Goodhue County, Minnesota* and *Hampton Energy Center: Dakota County, Minnesota* (dated April 15, 2013 and May 9, 2013). Subject: Information provided by Calpine Corporation and its affiliate Mankato Energy Center, LLC in the bid: *Calpine's Mankato Energy Center Expansion Proposal* (dated April 15, 2013 and May 8, 2013). In Docket No. E002/CN-12-1240, the Company in its Certificate of Need (CN) filing, indicates the use of natural gas prices by existing generating units in its strategist base case. On page 4 of the *Cannon Falls Peaking Expansion Bid* Invenergy in part states the following:

> … Invenergy proposes to develop the Cannon Falls Peaking Expansion and sell the capacity and energy to NSP with terms and conditions substantially similar to the existing Power Purchase Agreement between Cannon Falls and NSP dated April 1, 2005.

On page 4 of the *Hampton Energy Center Bid* Invenergy in part states the following:

> … Invenergy proposes to develop the Hampton Energy Center with a design and configuration that is very similar to Invenergy's existing Cannon Falls Facility this is located in Goodhue County. Furthermore, Invenergy proposes to sell the capacity and energy to NSP with terms and conditions substantially similar to the existing Power Purchase Agreement between Cannon Falls and NSP dated April 1, 2005.

On page 4 of the *Calpine's Mankato Energy Center Expansion Proposal* Calpine in part states the following:

> Consistent with the Commission's directive that parties be held to the cost information provided in their bids,[4] the specific pricing, terms and conditions of Calpine's Proposal represent a fixed-price indicative offer[5] with long-term performance guaranties wherein Calpine will assume the construction, delivery date and long term operating risk of the Mankato Expansion.
>
> ---
>
> 5. Subject to any material changes in project timing and/or scope required by the Commission or identified during final tolling agreement negotiations. Proposed pricing assumes a 2017 commercial operation date.

In Appendix A, on page 3 of the *Calpine's Mankato Energy Center Expansion Proposal* Calpine in part states the following:

> Calpine intends to follow the PPA structure used in the Purchased Power Agreement between MEC and Northern States Power Company executed on March 11, 2004 ("MEC PPA") for expediency, cost effectiveness and negotiating efficiency.

1. It is the Department's understanding, based on the above references, that Invenergy's *Bids* and Calpine's *Proposal* assume that Xcel would pay all of

the fuel costs of purchasing and delivering natural gas to Cannon Falls facility's and Mankato Energy Center's points of delivery, respectively. Is this understanding correct?

2. If the answer to part (1) is in the affirmative, then please fully explain in detail if the natural gas fuel prices contained in Xcel's strategist base case for the existing Cannon Falls facility and the Mankato Energy Center would be appropriate to use in comparing the *Bids* and *Proposal* of Invenergy and Calpine, respectively, given the above references.

3. Please fully explain the type of natural gas being provided to the existing facilities at the Mankato Energy Center (i.e., Firm, Interruptible, or a combination of Firm and Interruptible).

4. Please fully explain and identify the associated natural gas commodity costs in parts (2) and (3) above.

5. Please fully explain and identify in detail the amount and type of interstate pipeline transportation and fixed reservation (demand) costs that are included in parts (2) and (3) above.

6. Please fully explain and identify the amount, if any, of local pipeline distribution service costs that are included in parts (2) and (3) above.

Where applicable for any and all parts above, please provide the requested data in a Microsoft Excel executable format with all links and formulae intact. If any of these links target an outside file, please provide all such additional files.

In addition, please provide your response in both a Microsoft Word and Adobe PDF format.

In addition, whenever acronyms are used in the data given in your response above, please provide an explanation of all acronyms used AND also provide a brief but complete explanation of the source of each data series that is provided.

If this information has already been provided in written testimony, filing, or in response to an earlier Department of Commerce (DOC) information request, please identify the specific testimony, and/or filing cite(s) or DOC information request number(s).

Response: (1). Yes. The Department's understanding is correct. Under Calpine's proposed tolling agreement Xcel would be responsible for all fuel supply and delivery costs.

(2). **[TRADE SECRET BEGINS**

TRADE SECRET DATA ENDS]

(3). Calpine is not privy to information regarding what type of service Xcel uses to supply fuel to the existing facility. Calpine, however, understands that the Department is seeking this information from Xcel through Information Request No. 42. For this reason, Calpine has not separately sought such information from Xcel.

(4). Calpine is not privy to information regarding what type of service Xcel uses to supply fuel to the existing facility. Calpine, however, understands that the Department is seeking this information from Xcel through Information Request No. 42. For this reason, Calpine has not separately sought such information from Xcel.

(5). Calpine is not privy to information regarding what type of service Xcel uses to supply fuel to the existing facility. Calpine, however, understands that the Department is seeking this information from Xcel through Information Request No. 42. For this reason, Calpine has not separately sought such information from Xcel.

(6). The Mankato Energy Center interconnects directly with Northern Natural Gas' interstate pipeline. Therefore, while Calpine is not privy to information regarding what type of service Xcel uses to supply fuel to the existing facility, the cost of natural gas to serve the Mankato Energy Center Expansion should not include any costs related to local pipeline distribution service. In addition, Calpine understands that the Department is seeking this information from Xcel through Information Request No. 42. For this reason, Calpine has not separately sought confirmation of its understanding from Xcel.

Response by:	Champe Fisher
Title:	Vice President of Commercial Development
Department:	NA
Telephone:	(302) 468-5325
Date:	July 11, 2013

WINTHROP & WEINSTINE

ATTORNEYS AND COUNSELORS AT LAW

July 11, 2013

Eric F. Swanson
Direct Dial: (612) 604-6511
Direct Fax: (612) 604-6811
eswanson@winthrop.com

VIA EMAIL

Alexius M. Hofschulte
Minnesota Department of Commerce
85 7th Place East, Suite 500
St. Paul, MN 55101-2198

RE: In the Matter of the Petition of Northern States Power Company d/b/a Xcel Energy for Approval of Competitive Resource Acquisition Proposal and Certificate of Need
MPUC Docket No. E-002/CN-12-1240

Dear Mr. Hofschulte:

Enclosed please find Invenergy Thermal Development LLC ("Invenergy") Responses to Information Requests Numbers 40 and 41 from the Department of Commerce in the above-referenced docket.

Very truly yours,

WINTHROP & WEINSTINE, P.A.

/s/ Eric F. Swanson

Eric F. Swanson

Enclosures

8083487v1

State of Minnesota
DEPARTMENT OF COMMERCE
DIVISION OF ENERGY RESOURCES

Utility Information Request

Docket Numbers: E002/CN-12-1240 Date of Request: June 28, 2013

Requested From: Eric F. Swanson, Winthrop & Weinstine P.A. Response Due: July 11, 2013

Analyst Requesting Information: Sachin Shah/Steve Rakow

Type of Inquiry:

[ ] Financial	[ ] Rate of Return	[ ] Rate Design
[ ] Engineering	[ ] Forecasting	[ ] Conservation
[ ] Cost of Service	[ ] CIP	[X] CN

If you feel your responses are trade secret or privileged, please indicate this on your response.

Request No.	
41	Subject: Information provided by Xcel Energy – Northern States Power Company, A Minnesota Corporation (Xcel Energy, NSP or Company) in its *Petition to the Minnesota Public Utilities Commission Seeking Approval For A Competitive Resource Acquisition Proposal and For A Certificate of Need*: Subject: Information provided by Invenergy Thermal Development LLC in the bids: *Cannon Falls Peaking Expansion: Goodhue County, Minnesota* and *Hampton Energy Center: Dakota County, Minnesota* (dated April 15, 2013 and May 9, 2013). Subject: Information provided by Calpine Corporation and its affiliate Mankato Energy Center, LLC in the bid: *Calpine's Mankato Energy Center Expansion Proposal* (dated April 15, 2013 and May 8, 2013). In Docket No. E002/CN-12-1240, the Company in its Certificate of Need (CN) filing, indicates the use of natural gas prices by existing generating units in its strategist base case.

Response by: Craig Gordon
Title: Director, Origination
Department: Energy Marketing
Telephone: (312) 582-1467

List sources of information:
www.northernnaturalgas.com

On page 4 of the *Cannon Falls Peaking Expansion Bid* Invenergy in part states the following:

> ... Invenergy proposes to develop the Cannon Falls Peaking Expansion and sell the capacity and energy to NSP with terms and conditions substantially similar to the existing Power Purchase Agreement between Cannon Falls and NSP dated April 1, 2005.

On page 4 of the *Hampton Energy Center Bid* Invenergy in part states the following:

> ... Invenergy proposes to develop the Hampton Energy Center with a design and configuration that is very similar to Invenergy's existing Cannon Falls Facility this is located in Goodhue County. Furthermore, Invenergy proposes to sell the capacity and energy to NSP with terms and conditions substantially similar to the existing Power Purchase Agreement between Cannon Falls and NSP dated April 1, 2005.

On page 4 of the *Calpine's Mankato Energy Center Expansion Proposal* Calpine in part states the following:

> Consistent with the Commission's directive that parties be held to the cost information provided in their bids,[4] the specific pricing, terms and conditions of Calpine's Proposal represent a fixed-price indicative offer[5] with long-term performance guaranties wherein Calpine will assume the construction, delivery date and long term operating risk of the Mankato Expansion.

---

5. Subject to any material changes in project timing and/or scope required by the Commission or identified during final tolling agreement negotiations. Proposed pricing assumes a 2017 commercial operation date.

In Appendix A, on page 3 of the *Calpine's Mankato Energy Center Expansion Proposal* Calpine in part states the following:

> Calpine intends to follow the PPA structure used in the Purchased Power Agreement between MEC and Northern States Power Company executed on March 11, 2004 ("MEC PPA") for expediency, cost effectiveness and negotiating efficiency.

Response by:	Craig Gordon	List sources of information:	
Title:	Director, Origination	www.northernnaturalgas.com	
Department:	Energy Marketing		
Telephone:	(312) 582-1467		

1. It is the Department's understanding, based on the above references, that Invenergy's *Bids* and Calpine's *Proposal* assume that Xcel would pay all of the fuel costs of purchasing and delivering natural gas to Cannon Falls facility's and Mankato Energy Center's points of delivery, respectively. Is this understanding correct?

2. If the answer to part (1) is in the affirmative, then please fully explain in detail if the natural gas fuel prices contained in Xcel's strategist base case for the existing Cannon Falls facility and the Mankato Energy Center would be appropriate to use in comparing the *Bids* and *Proposal* of Invenergy and Calpine, respectively, given the above references.

3. Please fully explain the type of natural gas being provided to the existing facilities at Cannon Falls (i.e., Firm, Interruptible, or a combination of Firm and Interruptible).

4. Please fully explain and identify the associated natural gas commodity costs in parts (2) and (3) above.

5. Please fully explain and identify in detail the amount and type of interstate pipeline transportation and fixed reservation (demand) costs that are included in parts (2) and (3) above.

6. Please fully explain and identify the amount, if any, of local pipeline distribution service costs that are included in parts (2) and (3) above.

Where applicable for any and all parts above, please provide the requested data in a Microsoft Excel executable format with all links and formulae intact. If any of these links target an outside file, please provide all such additional files.

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If this information has already been provided in written testimony, filing, or in response to an earlier Department of Commerce (DOC) information request, please identify the specific testimony, and/or filing cite(s) or DOC information request number(s).

Response by: Craig Gordon

Title: Director, Origination

Department: Energy Marketing

Telephone: (312) 582-1467

List sources of information:

www.northernnaturalgas.com

RESPONSE:

1. Invenergy shares the same understanding as the Department that Xcel would pay all of the fuel costs of purchasing and delivering natural gas to the Cannon Falls Peaking Expansion and the Hampton Energy Center.

2. Assuming that Xcel used identical natural gas price assumptions in the strategist base case, then that price should be appropriate for comparing the Bids and Proposal. Invenergy notes, however, that it discovered an error in the natural gas price assumption when reviewing the initial results from the Xcel strategist runs. Rather than the $4/MMBtu value stated in the footnotes of the file, Invenergy determined that the actual price used in the simulations was above $6/MMBtu. Xcel agreed with Invenergy that the wrong gas input was used, but Invenergy has not received a corrected set of simulations to verify that the $4/MMBtu price is being modeled correctly.

3. Since Xcel is responsible for the gas supply to the Cannon Falls Facility, Invenergy does not have knowledge of Xcel's gas supply arrangements. However, after reviewing the Northern Natural Gas Pipeline Electronic Bulletin Board, it does appear that Xcel currently has a firm transportation contract for a nominal amount of capacity with the Cannon Falls Energy Center as a primary delivery point.

   http://www.northernnaturalgas.com/INFOPOSTINGS/Pages/IndexOfCustomers.aspx

4. Invenergy is not able to provide an answer to this question for lack of knowledge of Xcel's gas supply arrangements.

5. Again, Invenergy is not able to provide an answer to this question for lack of knowledge of Xcel's gas supply arrangements.

6. Invenergy does not have transparency into the amount, if any, of local pipeline distribution costs that are incurred by Xcel.

8081509v1

Response by: Craig Gordon
Title: Director, Origination
Department: Energy Marketing
Telephone: (312) 582-1467

List sources of information:
www.northernnaturalgas.com

PUBLIC DOCUMENT:
TRADE SECRET DATA EXCISED

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☒ **Public Document**

Xcel Energy			
Docket No.:	E002/CN-12-1240		
Response To:	Department of Commerce	Information Request No.	042
Requestor:	Sachin Shah & Steve Rakow		
Date Received:	June 28, 2013		

Question:

Subject: Information provided by Xcel Energy -- Northern States Power Company, A Minnesota Corporation (Xcel Energy, NSP or Company) in its *Petition to the Minnesota Public Utilities Commission Seeking Approval For A Competitive Resource Acquisition Proposal and For A Certificate of Need:*

Subject: Information provided by Invenergy Thermal Development LLC in the bids: *Cannon Falls Peaking Expansion: Goodhue County, Minnesota* and *Hampton Energy Center: Dakota County, Minnesota* (dated April 15, 2013 and May 9, 2013).

Subject: Information provided by Calpine Corporation and its affiliate Mankato Energy Center, LLC in the bid: *Calpine's Mankato Energy Center Expansion Proposal* (dated April 15, 2013 and May 8, 2013).

In Docket No. E002/CN-12-1240, the Company in its Certificate of Need (CN) filing, indicates the use of natural gas prices by existing generating units in its strategist base case.

On page 4 of the *Cannon Falls Peaking Expansion Bid* Invenergy in part states the following:

> … Invenergy proposes to develop the Cannon Falls Peaking Expansion and sell the capacity and energy to NSP with terms and conditions substantially similar to the existing Power Purchase Agreement between Cannon Falls and NSP dated April 1, 2005.

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existing Power Purchase Agreement between Cannon Falls and NSP dated April 1, 2005.

On page 4 of the *Calpine's Mankato Energy Center Expansion Proposal* Calpine in part states the following:

> Consistent with the Commission's directive that parties be held to the cost information provided in their bids,4 the specific pricing, terms and conditions of Calpine's Proposal represent a fixed-price indicative offer5 with long-term performance guaranties wherein Calpine will assume the construction, delivery date and long term operating risk of the Mankato Expansion.

---

5. Subject to any material changes in project timing and/or scope required by the Commission or identified during final tolling agreement negotiations. Proposed pricing assumes a 2017 commercial operation date.

In Appendix A, on page 3 of the *Calpine's Mankato Energy Center Expansion Proposal* Calpine in part states the following:

> Calpine intends to follow the PPA structure used in the Purchased Power Agreement between MEC and Northern States Power Company executed on March 11, 2004 ("MEC PPA") for expediency, cost effectiveness and negotiating efficiency.

1. It is the Department's understanding, based on the above references, that Invenergy's *Bids* and Calpine's *Proposal* assume that Xcel would pay all of the fuel costs of purchasing and delivering natural gas to Cannon Falls facility's and Mankato Energy Center's points of delivery, respectively. Is this understanding correct?

2. If the answer to part (1) is in the affirmative, then please fully explain in detail if the natural gas fuel prices contained in Xcel's strategist base case for the existing Cannon Falls facility and the Mankato Energy Center would be appropriate to use in comparing the *Bids* and *Proposal* of Invenergy and Calpine, respectively, given the above references.

3. Please fully explain the type of natural gas being provided to the existing facilities at Cannon Falls and Mankato Energy Center (i.e., Firm, Interruptible, or a combination of Firm and Interruptible).

4. Please fully explain and identify the associated natural gas commodity costs in parts (2) and (3) above.

5. Please fully explain and identify in detail the amount and type of interstate pipeline transportation and fixed reservation (demand) costs that are included in parts (2) and (3) above.

6. Please fully explain and identify the amount, if any, of local pipeline distribution service costs that are included in parts (2) and (3) above.

Where applicable for any and all parts above, please provide the requested data in a Microsoft Excel executable format with all links and formulae intact. If any of these links target an outside file, please provide all such additional files.

In addition, please provide your response in both a Microsoft Word and Adobe PDF format.

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If this information has already been provided in written testimony, filing, or in response to an earlier Department of Commerce (DOC) information request, please identify the specific testimony, and/or filing cite(s) or DOC information request number(s).

Response:

1. Yes, the bidders are proposing that Xcel be responsible for the costs of fuel purchasing and delivery for these projects and we are currently developing estimates of those costs. However, the bidder is responsible for installing and maintaining the incremental back-up fuel oil facilities.

2. No, it would not be appropriate to use the costs currently contained in Xcel's strategist base case to evaluate the *Bids* and *Proposal* of Invenergy and Calpine. The cost contained in the Strategist base case are natural gas commodity costs, plus the variable transport costs to deliver gas to the existing facilities based on the existing transport agreements. Although the natural gas commodity costs are likely to be representative of the supply cost, it is likely that the variable transport charges will be different. In addition, the Strategist base case does not include the annual fixed charges associated with fuel delivery at those sites.

   Both variable transport cost and annual fixed charges for fuel supply will be dependent on whether or not firm or interruptible fuel supply will be used at

the facility. We are currently developing these estimates and propose to provide these costs in a supplemental response in approximately three weeks (Aug 9th). If the estimates are completed sooner than expected we will supply them as soon as they are available.

3. NSP uses a combination of firm and interruptible upstream transportation service to deliver firm gas supplies to Cannon Falls and Mankato, in addition to the back-up fuel oil. Gas supply is purchased at Ventura, Iowa on Northern Natural Gas (NNG) and then transported by NNG to the plants. Mankato is directly connected to NNG via a plant line. Cannon Falls is served from NNG via Greater Minnesota Gas (an intrastate pipeline).

4. Please see Attachment A for the associated natural gas commodity costs.

5. Attachment A also includes the volumetric transportation charges currently being used in Strategist for the two existing plants. The Strategist base case does not include the specific annual fixed charges (reservation / demand charge) associated with fuel delivery at those sites.

6. There are no local distribution charges for Cannon Falls or Mankato in NSP's Strategist base case; however, Cannon Falls relies on Greater Minnesota Gas as described in (3) above and there will be distribution charges.

Please note that portions of Attachment A are marked "Non-Public" as it contains information the Company considers to be trade secret as defined by Minn. Stat. § 13.37(1)(b). This information has independent economic value from not being generally known to, and not being readily ascertainable by other parties, who could obtain economic value from its disclosure or use. Thus, Xcel Energy maintains this information as trade secret.

Preparer:	Curt Dallinger/Steve Wishart
Title:	Director/Director
Department:	Gas Planning/Resource Planning
Telephone:	303-571-2784/612-330-6128
Date:	July 23, 2013

Strategist natural gas fuel prices vary monthly. Strategist fuel prices are input as an annual average which is then adjusted by a factor for monthly seasonality. The monthly Cannon Falls cost (Column H) is annually averaged (Column M). To calculate the seasonality factor, the monthly cost (Column H) is divided by the corresponding annual average (Column M) for the years 2012 through 2020. The seasonality for years 2021 through 2050 in the analysis below uses the 2021 seasonality.

	Cannon Falls Yearly Avg ($/mmBtu)
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	… TRADE SECRET DATA ENDS]

		[TRADE SECRET DATA BEGINS….
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		… TRADE SECRET DATA ENDS]

Cannon Falls Total Gas Commodity Cost = Ventura Hub Price + (Fuel Percentage * Ventura Hub Price) + Interruptible Rate (Winter Only) + Firm Rate (Summer Only) + Intrastate Pipeline Commodity Rate

Cannon Falls is subject to an Intrastate Pipeline Commodity Rate for intermediate pipeline connecting Northern Natural Gas to Plant.

Cannon Falls

	Ventura Hub ($/mmBtu)	Fuel Percentage - Northern Natural Gas (%)	Interruptible Rate - Northern Natural Gas ($/mmBtu)	Firm Rate - Northern Natural Gas ($/mmBtu)	Intrastate Pipeline Commodity ($/mmBtu)	Cannon Falls Total Gas Commodity Cost ($/mmBtu)	Strategist Cannon Falls Total Gas Commodity Cost ($/mmBtu)
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PUBLIC DOCUMENT: TRADE SECRET DATA EXCISED

	Ventura Hub ($/mmBtu)	Fuel Percentage - Northern Natural Gas (%)	Interruptible Rate - Northern Natural Gas ($/mmBtu)	Firm Rate - Northern Natural Gas ($/mmBtu)	Intrastate Pipeline Commodity ($/mmBtu)	Cannon Falls Total Gas Commodity Cost ($/mmBtu)	Strategist Cannon Falls Total Gas Commodity Cost ($/mmBtu)
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PUBLIC DOCUMENT: TRADE SECRET DATA EXCISED

	Ventura Hub ($/mmBtu)	Fuel Percentage - Northern Natural Gas (%)	Interruptible Rate - Northern Natural Gas ($/mmBtu)	Firm Rate - Northern Natural Gas ($/mmBtu)	Intrastate Pipeline Commodity ($/mmBtu)	Cannon Falls Total Gas Commodity Cost ($/mmBtu)	Strategist Cannon Falls Total Gas Commodity Cost ($/mmBtu)
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PUBLIC DOCUMENT: TRADE SECRET DATA EXCISED

	Ventura Hub ($/mmBtu)	Fuel Percentage - Northern Natural Gas (%)	Interruptible Rate - Northern Natural Gas ($/mmBtu)	Firm Rate - Northern Natural Gas ($/mmBtu)	Intrastate Pipeline Commodity ($/mmBtu)	Cannon Falls Total Gas Commodity Cost ($/mmBtu)	Strategist Cannon Falls Total Gas Commodity Cost ($/mmBtu)
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PUBLIC DOCUMENT: TRADE SECRET DATA EXCISED

	Ventura Hub ($/mmBtu)	Fuel Percentage - Northern Natural Gas (%)	Interruptible Rate - Northern Natural Gas ($/mmBtu)	Firm Rate - Northern Natural Gas ($/mmBtu)	Intrastate Pipeline Commodity ($/mmBtu)	Cannon Falls Total Gas Commodity Cost ($/mmBtu)	Strategist Cannon Falls Total Gas Commodity Cost ($/mmBtu)
Apr-41							
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	Ventura Hub ($/mmBtu)	Fuel Percentage - Northern Natural Gas (%)	Interruptible Rate - Northern Natural Gas ($/mmBtu)	Firm Rate - Northern Natural Gas ($/mmBtu)	Intrastate Pipeline Commodity ($/mmBtu)	Cannon Falls Total Gas Commodity Cost ($/mmBtu)	Strategist Cannon Falls Total Gas Commodity Cost ($/mmBtu)
Apr-50							
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TRADE SECRET DATA ENDS}

Strategist natural gas fuel prices vary monthly. Strategist fuel prices are input as an annual average which is then adjusted by a factor for monthly seasonality. Mankato seasonality is assumed to follow the seasonality of the forecast of Ventura Hub Price. The monthly Ventura Hub Price (Column C) is annually averaged (Column L). To calculate the seasonality factor, the monthly cost (Column C) is divided by the corresponding annual average (Column L) for the years 2012 through 2020. The seasonality for years 2021 through 2050 in the analysis below uses the 2021 seasonality.

	Mankato Yearly Avg ($/mmBtu)	Ventura Yearly Avg ($/mmBtu)
	[TRADE SECRET DATA BEGINS….	
2012		
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	Avg
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2012	2013	2014	2015	2016	2017	2018	2019	2020	2021-2050
[TRADE SECRET DATA BEGINS….									
… TRADE SECRET DATA ENDS]									

Mankato Total Gas Commodity Cost = Ventura Hub Price + (Fuel Percentage * Ventura Hub Price) + Firm Rate

Mankato

	Ventura Hub ($/mmBtu)	Fuel Percentage - Northern Natural Gas (%)	Firm Rate - Northern Natural Gas ($/mmBtu)	Mankato Total Gas Commodity Cost ($/mmBtu)	Strategist Mankato Total Gas Commodity Cost ($/mmBtu)
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	Ventura Hub ($/mmBtu)	Fuel Percentage - Northern Natural Gas (%)	Firm Rate - Northern Natural Gas ($/mmBtu)	Mankato Total Gas Commodity Cost ($/mmBtu)	Strategist Mankato Total Gas Commodity Cost ($/mmBtu)
Feb-14					
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	Ventura Hub ($/mmBtu)	Fuel Percentage - Northern Natural Gas (%)	Firm Rate - Northern Natural Gas ($/mmBtu)	Mankato Total Gas Commodity Cost ($/mmBtu)	Strategist Mankato Total Gas Commodity Cost ($/mmBtu)
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	Ventura Hub ($/mmBtu)	Fuel Percentage - Northern Natural Gas (%)	Firm Rate - Northern Natural Gas ($/mmBtu)	Mankato Total Gas Commodity Cost ($/mmBtu)	Strategist Mankato Total Gas Commodity Cost ($/mmBtu)
Dec-29					
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	Ventura Hub ($/mmBtu)	Fuel Percentage - Northern Natural Gas (%)	Firm Rate - Northern Natural Gas ($/mmBtu)	Mankato Total Gas Commodity Cost ($/mmBtu)	Strategist Mankato Total Gas Commodity Cost ($/mmBtu)
Nov-37					
Dec-37					
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Northern States Power Company

PUBLIC DOCUMENT: TRADE SECRET DATA EXCISED

Mankato

	Ventura Hub ($/mmBtu)	Fuel Percentage - Northern Natural Gas (%)	Firm Rate - Northern Natural Gas ($/mmBtu)	Mankato Total Gas Commodity Cost ($/mmBtu)	Strategist Mankato Total Gas Commodity Cost ($/mmBtu)
Oct-45					
Nov-45					
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PUBLIC DOCUMENT:
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☐ **Non Public Document – Contains Trade Secret Data**
☒ **Public Document – Trade Secret Data Excised**
☐ **Public Document**

Xcel Energy			
Docket No.:	E002/CN-12-1240		
Response To:	Department of Commerce	Information Request No.	042
Requestor:	Sachin Shah & Steve Rakow		
Date Received:	June 28, 2013	**SUPPLEMENT**	

Question:

Subject: Information provided by Xcel Energy -- Northern States Power Company, A Minnesota Corporation (Xcel Energy, NSP or Company) in its *Petition to the Minnesota Public Utilities Commission Seeking Approval For A Competitive Resource Acquisition Proposal and For A Certificate of Need:*

Subject: Information provided by Invenergy Thermal Development LLC in the bids: *Cannon Falls Peaking Expansion: Goodhue County, Minnesota* and *Hampton Energy Center: Dakota County, Minnesota* (dated April 15, 2013 and May 9, 2013).

Subject: Information provided by Calpine Corporation and its affiliate Mankato Energy Center, LLC in the bid: *Calpine's Mankato Energy Center Expansion Proposal* (dated April 15, 2013 and May 8, 2013).

In Docket No. E002/CN-12-1240, the Company in its Certificate of Need (CN) filing, indicates the use of natural gas prices by existing generating units in its strategist base case.

On page 4 of the *Cannon Falls Peaking Expansion Bid* Invenergy in part states the following:

> … Invenergy proposes to develop the Cannon Falls Peaking Expansion and sell the capacity and energy to NSP with terms and conditions substantially similar to the existing Power Purchase Agreement between Cannon Falls and NSP dated April 1, 2005.

On page 4 of the *Hampton Energy Center Bid* Invenergy in part states the following:

> … Invenergy proposes to develop the Hampton Energy Center with a design and configuration that is very similar to Invenergy's existing Cannon Falls Facility this is located in Goodhue County. Furthermore, Invenergy proposes to sell the capacity and energy to NSP with terms and conditions substantially similar to the

existing Power Purchase Agreement between Cannon Falls and NSP dated April 1, 2005.

On page 4 of the *Calpine's Mankato Energy Center Expansion Proposal* Calpine in part states the following:

> Consistent with the Commission's directive that parties be held to the cost information provided in their bids,4 the specific pricing, terms and conditions of Calpine's Proposal represent a fixed-price indicative offer5 with long-term performance guaranties wherein Calpine will assume the construction, delivery date and long term operating risk of the Mankato Expansion.

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5. Subject to any material changes in project timing and/or scope required by the Commission or identified during final tolling agreement negotiations. Proposed pricing assumes a 2017 commercial operation date.

In Appendix A, on page 3 of the *Calpine's Mankato Energy Center Expansion Proposal* Calpine in part states the following:

> Calpine intends to follow the PPA structure used in the Purchased Power Agreement between MEC and Northern States Power Company executed on March 11, 2004 ("MEC PPA") for expediency, cost effectiveness and negotiating efficiency.

1. It is the Department's understanding, based on the above references, that Invenergy's *Bids* and Calpine's *Proposal* assume that Xcel would pay all of the fuel costs of purchasing and delivering natural gas to Cannon Falls facility's and Mankato Energy Center's points of delivery, respectively. Is this understanding correct?

2. If the answer to part (1) is in the affirmative, then please fully explain in detail if the natural gas fuel prices contained in Xcel's strategist base case for the existing Cannon Falls facility and the Mankato Energy Center would be appropriate to use in comparing the *Bids* and *Proposal* of Invenergy and Calpine, respectively, given the above references.

3. Please fully explain the type of natural gas being provided to the existing facilities at Cannon Falls and Mankato Energy Center (i.e., Firm, Interruptible, or a combination of Firm and Interruptible).

4. Please fully explain and identify the associated natural gas commodity costs in parts (2) and (3) above.

5. Please fully explain and identify in detail the amount and type of interstate pipeline transportation and fixed reservation (demand) costs that are included in parts (2) and (3) above.

6. Please fully explain and identify the amount, if any, of local pipeline distribution service costs that are included in parts (2) and (3) above.

Where applicable for any and all parts above, please provide the requested data in a Microsoft Excel executable format with all links and formulae intact. If any of these links target an outside file, please provide all such additional files.

In addition, please provide your response in both a Microsoft Word and Adobe PDF format.

In addition, whenever acronyms are used in the data given in your response above, please provide an explanation of all acronyms used AND also provide a brief but complete explanation of the source of each data series that is provided.

If this information has already been provided in written testimony, filing, or in response to an earlier Department of Commerce (DOC) information request, please identify the specific testimony, and/or filing cite(s) or DOC information request number(s).

Response:

1. Yes, the bidders are proposing that Xcel be responsible for the costs of fuel purchasing and delivery for these projects and we are currently developing estimates of those costs. However, the bidder is responsible for installing and maintaining the incremental back-up fuel oil facilities.

2. No, it would not be appropriate to use the costs currently contained in Xcel's strategist base case to evaluate the *Bids* and *Proposal* of Invenergy and Calpine. The cost contained in the Strategist base case are natural gas commodity costs, plus the variable transport costs to deliver gas to the existing facilities based on the existing transport agreements. Although the natural gas commodity costs are likely to be representative of the supply cost, it is likely that the variable transport charges will be different. In addition, the Strategist base case does not include the annual fixed charges associated with fuel delivery at those sites.

   Both variable transport cost and annual fixed charges for fuel supply will be dependent on whether or not firm or interruptible fuel supply will be used at

the facility. We are currently developing these estimates and propose to provide these costs in a supplemental response in approximately three weeks (Aug 9th). If the estimates are completed sooner than expected we will supply them as soon as they are available.

3. NSP uses a combination of firm and interruptible upstream transportation service to deliver firm gas supplies to Cannon Falls and Mankato, in addition to the back-up fuel oil. Gas supply is purchased at Ventura, Iowa on Northern Natural Gas (NNG) and then transported by NNG to the plants. Mankato is directly connected to NNG via a plant line. Cannon Falls is served from NNG via Greater Minnesota Gas (an intrastate pipeline).

4. Please see Attachment A for the associated natural gas commodity costs.

5. Attachment A also includes the volumetric transportation charges currently being used in Strategist for the two existing plants. The Strategist base case does not include the specific annual fixed charges (reservation / demand charge) associated with fuel delivery at those sites.

Please note that portions of Attachment A are marked "Non-Public" as it contains information the Company considers to be trade secret as defined by Minn. Stat. § 13.37(1)(b). This information has independent economic value from not being generally known to, and not being readily ascertainable by other parties, who could obtain economic value from its disclosure or use. Thus, Xcel Energy maintains this information as trade secret.

SUPPLEMENT:

5. Please see Attachment B for details regarding the estimated upstream pipeline transportation costs to provide fuel to the Mankato, Hampton, and Cannon Falls plants. All three plants would be sited in an area where the interstate natural gas pipeline is essentially fully subscribed, requiring construction of additional pipeline facilities to make the plants' fuel supply highly reliable. Mankato would be served by transportation service from Northern Natural Gas. Since Mankato is proposed as a combined cycle, intermediate load facility, it will require firm gas transportation on a year-round basis.

Hampton and Cannon Falls would be served by transportation from Northern Natural Gas and Greater Minnesota Transmission. Attachment B shows estimated costs to provide firm year-round transportation service to Hampton and Cannon Falls to make the plants' fuel supply highly reliable. In the alternative, if the

Commission elects less reliable service for these two plants, Attachment B separately shows costs for interruptible transportation service to the plants. Using interruptible service, the Commission should expect the plants to have regular fuel supply in the summer months (April through October) except during periods of pipeline maintenance and emergency operations. However, in the winter months (November through March), the Commission should expect the plants to be unable to operate on most cold winter days due to interruption of gas transportation services on Northern Natural Gas. The interruptible service option is cheaper for low-load factor peaker plants; however, the plants will not be available on many winter days.

6. There are no local distribution charges for Mankato in NSP's Strategist base case; however, Cannon Falls and Hampton rely on Greater Minnesota Transmission as described in (3) above. The Greater Minnesota Transmission system, which is considered an intrastate facility, would also be used to serve the Hampton and Cannon Falls plants. Those costs are detailed in Attachment B to Response 5 above. There are no other distribution charges anticipated for these plants.

Preparer:	Curt Dallinger/Steve Wishart	
Title:	Director/Director	
Department:	Gas Planning/Resource Planning	
Telephone:	303-571-2784/612-330-6128	
Date:	July 23, 2013	**SUPPLEMENT: August 15, 2013**

Gas Supply Costs for MN IPP Bids

PUBLIC DOCUMENT: TRADE SECRET DATA EXCISED

Firm Option

Plant	Connecting Pipeline	Capacity (MW)	Heat Rate (MMBtu/MWh)	Demand Volume (Dth/hour)	Demand Volume (Dth/day)	Minimum Delivery Pressure (psig)	Market Price	Annual Demand ($/year)	Total Variable Costs ($/Dth) (1)	Fuel 1/	Comments
								TRADE SECRET BEGINS:			[TRADE SECRET BEGINS:
Calpine Mankato	Firm NNG	345	7.25	2,501	40,020	550	Ventura		$0.0377	.27 % 1.37%	
Invenergy Hampton	Firm NNG	357	10.9	3,891	62,261	550	Ventura		$0.0377	.27 & 1.37%	
	GMT								$0.0100		
	Total								$0.0477		
Invenergy Cannon Falls	Firm NNG	179	10.9	1,951	31,218	550	Ventura		$0.0377	.27 & 1.37%	
	GMT								$0.0100		
	Total								$0.0477		
								TRADE SECRET ENDS]			TRADE SECRET ENDS]

Interruptible Option

								[TRADE SECRET BEGINS:			
Invenergy Hampton	Int NNG	357	10.9	3,891	62,261	550	Ventura		0.2675 & 0.6275	.27 & 1.37%	Plant subject to interruption (2)
	GMT								$0.0100		
	Total								$0.0100		
Invenergy Cannon Falls	Int NNG	179	10.9	1,951	31,218	550	Ventura		0.2675 & 0.6275	.27 & 1.37%	Plant subject to interruption (2)
	GMT								$0.0100		
	Total								$0.0100		
								TRADE SECRET ENDS]			

(1) Rates are lower during the summer months of April - October and higher in the winter months of November - March.

(2) Using interruptible services only, plant may be without fuel occasionally in the summer due to pipeline maintenance and emergency operations. In the winter, service will be interrupted on many days due to firm customer demand.

State of Minnesota
DEPARTMENT OF COMMERCE
DIVISION OF ENERGY RESOURCES

Utility Information Request

Docket Numbers: E002/CN-12-1240 Date of Request: June 21, 2013

Requested From: Brian M. Meloy
Leonard, Street and Deinard
(On behalf of Calpine Corp.)
Response Due: July 3, 2013

Analyst Requesting Information: Sachin Shah/Steve Rakow

Type of Inquiry:			
	[ ] Financial	[ ] Rate of Return	[ ] Rate Design
	[ ] Engineering	[ ] Forecasting	[ ] Conservation
	[ ] Cost of Service	[ ] CIP	[X] CN

If you feel your responses are trade secret or privileged, please indicate this on your response.

Request No.	
32	Subject: Information provided by Calpine Corporation and its affiliate Mankato Energy Center, LLC in the bid: *Calpine's Mankato Energy Center Expansion Proposal* (dated April 15, 2013). In Docket No. E002/CN-12-1240, on page 4 Calpine in part states the following: > The Mankato Energy Center was constructed so as to accommodate future installation of an additional power train (CTG and HRSG) and already includes a steam turbine generator and gas pipeline lateral that are sufficiently sized for the Mankato Expansion. On page 2 of Appendix A Calpine states the following: > The existing 20" gas lateral is capable of delivering the requisite gas for both MEC and MEC expansion. (A) Please identify and explain the size and type of interstate pipeline that the above referenced existing 20" diameter lateral connects to and identify the Town Border Station (TBS).

(B) Have there been any interstate pipeline (identified in part (A) above) constraints, either downstream or upstream of the TBS referenced and mentioned above?

Where applicable for any and all parts above, please provide the requested data in a Microsoft Word and Adobe PDF format.

In addition, whenever acronyms are used in the data given in your response above, please provide an explanation of all acronyms used AND also provide a brief but complete explanation of the source of each data series that is provided.

If this information has already been provided in written testimony, filing, or in response to an earlier Department of Commerce (DOC) information request, please identify the specific testimony, and/or filing cite(s) or DOC information request number(s).

Response: (A) Pursuant to Calpine's request, Northern Natural Gas Co. ("Northern") provided the following information:

"Northern Natural Gas Co. (Northern) is the interstate pipeline directly upstream of Calpine's 20" diameter lateral. Northern delivers to the 20" lateral via its existing 16" diameter mainline. Northern's existing 16" diameter mainline is served from an interconnect with Northern Border Pipeline Co. (NBPL) at Welcome, MN. The Mankato Energy meter station is owned by Calpine with Northern owning the electronic flow measurement (EFM) at the station. In addition to the EFM, Northern owns approximately 60 feet of 16" diameter pipeline connecting the meter station to Northern's mainline. Currently, the meter station has a guaranteed pressure of at least 550 psig."

(B) When Calpine inquired as to whether there have been "any interstate pipeline (identified in part (A) above) constraints, either downstream or upstream of the TBS", Northern indicated "no."

Response by: Craig Adams

Title: Director, Gas Supply & Marketing

Department: NA

Telephone: (713) 570-4536

Date: July 3, 2013

☐ **Non Public Document – Contains Trade Secret Data**
☐ **Public Document – Trade Secret Data Excised**
☒ **Public Document**

Xcel Energy			
Docket No.:	E002/CN-12-1240		
Response To:	Department of Commerce	Information Request No.	017
Requestor:	Sachin Shah & Steve Rakow		
Date Received:	June 13, 2013		

Question:

Subject: Xcel Energy -- Northern States Power Company, A Minnesota Corporation (Xcel Energy, NSP or Company) Competitive Resource Acquisition Proceeding (C.R.A.P) bid.

In Docket No. E002/CN-12-1240, on page C-9 for example, the Company provides the project cost summary by in part stating the following:

> **Initial Capital:** Capital costs should include everything "inside the fence". Transmission costs should include interconnection but not other grid upgrades (these will be provided by Transmission). Gas costs should include interconnection but not additional pipeline upgrades that will be paid by either Xcel's gas operations or another gas company.

It is the Department's understanding that the above statement means that the Company as outlined in its *Bid* will not pay for the additional pipeline upgrades either indirectly or directly whether through a fuel (fixed or variable delivery) costs and/or any Contribution in Aid of Construction (CIAC), Construction Work in Progress (CWIP) or Allowance for Funds Used during Construction (AFUDC) costs.

1. Does the Company agree or disagree with the above understanding?

2. If the Company disagrees with the above understanding, then please fully explain and clarify in detail.

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Response:
The Department's interpretation is not correct. We have incorporated the costs associated with transmission and gas supply into our estimates for Black Dog Unit 6. The Strategist input forms for each project consist of five pages of information. All of the costs for each proposed project are included in the input forms. Transmission and gas costs are listed on separate pages for Business Unit accounting purposes.

For example, our estimate of transmission interconnection costs for Black Dog Unit 6 is presented on page C-11. Transmission costs are minimal because the unit can take the place of Black Dog Units 3 and 4 connection to the existing 115 kV substation on site. There are no system upgrades associated with the unit. Minor costs for connecting the new transformer to the switchyard are included in the project and listed on page C-11.

Our estimate of gas supply costs for Black Dog Unit 6 is presented on page C-12. We anticipate the gas supplier will pass any pipeline upgrades costs to Xcel Energy in the form of an annual, fixed demand charge as part of a gas supply contract. The demand charge allows the gas pipeline firm to recover the capital cost of line upgrades over the supply period and is included in the financial analysis of the proposed project. After consulting with gas suppliers, we included the demand charge found on page C-12.

Preparer:	Greg Ford
Title:	Director
Department:	Energy Supply – Engineering & Design
Telephone:	612-330-5696
Date:	June 25, 2013