800 LaSalle Avenue PO Box 59038 Minneapolis, MN 55459-0038



September 9, 2013

Dr. Burl Haar Executive Secretary Minnesota Public Utilities Commission 350 Metro Square Building 121 East Seventh Place, Suite 350 St. Paul, Minnesota 55101-2147

Re: **Reply Comments**-Docket No. G-008/M-13-578 Demand Entitlement: 2013-2014

Dear Dr. Haar:

CenterPoint Energy ("CPE" and the "Company") has received and reviewed the August 19, 2013 Comments of the Minnesota Department of Commerce ("Department") regarding CenterPoint Energy's Request for approval of a change in demand units effective November 1, 2013.

The Department recommends that the Minnesota Public Utilities Commission ("Commission").

- Approve CPE's proposed level of demand entitlement subject to supplemental filing(s) by the Company related to the reallocation of TF-12 Base and TF-12 Variable services and the final Reservation fees cost estimate;
- Accept the proposed changes to non-capacity items;
- Accept the design day level proposed by CPE; and
- Approve the proposed demand costs with an effective date of November 1, 2013.

The Department also requested that CPE provide further information in its *Reply Comments* :

- The cost/benefit analysis the Company used to arrive at the decision to allow 30,000 units of SMS service to expire; and
- A detailed discussion explaining whether it believes the current peak-day definition (coldest temperature in the past 20 years) is appropriate or whether maintaining the1995-1996 heating season event as the planning objective, on a going-forward basis, is more appropriate.

CenterPoint Energy thanks the department for its thorough analysis and accepts the Department's recommendations. The Company will supplement its final demand level to reflect the reallocation of TF-12 Base and TF-12 Variable services, the final Reservation fee costs and any other necessary updates and provides the additional requested information regarding SMS service level and peak-day estimates in this letter.

## SMS Turn Back Analysis

CenterPoint Energy has held a 60,000 DT /day level of SMS service on Northern Natural (for its Minnesota portfolio) for the last five years. 30,000 DT/Day of that amount is under contract in conjunction with its long term contract which went into effect November 2007 and will not expire until 2019. The other 30,000 was contracted for under a five-year contract which expired October 31, 2013. In anticipation of the expiration this year, CenterPoint examined the usage of the "second" 30,000 level over the 5-year period it was in effect and based on that experience estimated the annual savings in the form of lower pipeline penalties as compared to the increased costs in the form of commodity and demand charges for the coverage. The results, which are detailed in the attached document (attachment A), show that the lower demand charges (the cost of the SMS service which is incurred regardless of how much the SMS service is utilized) would have been greater than the increased in DDVC penalties had they been incurred when additional gas (above the 5% tolerance and 30,000 SMS level) was used.

# Importance of Design Day

The Department also discussed the definition of peak day and referred to "a Commission-prescribed peak day (which) has generally been interpreted as the coldest 24-hour average temperature in the past 20 years." The ramification of this is the 1996 weather event (that produced an average daily temperature of minus 25 degrees Fahrenheit (90 HDDs)) would in a few years drop from Design Day calculations and be replaced with a warmer Design Day (the average temperature of the coldest day since 1997 was only minus 14 degrees Fahrenheit or 79 HDDs).

Capacity planning uses a Design Day (the coldest possible 24 hour period) to determine sufficient capacity for firm customer's natural gas requirements<sup>1</sup>. Therefore, it is critical to look at the most severe temperature that could occur during any one day in order to ensure adequate capacity, which will be different than what might be needed in 'average' or 'normal' weather.

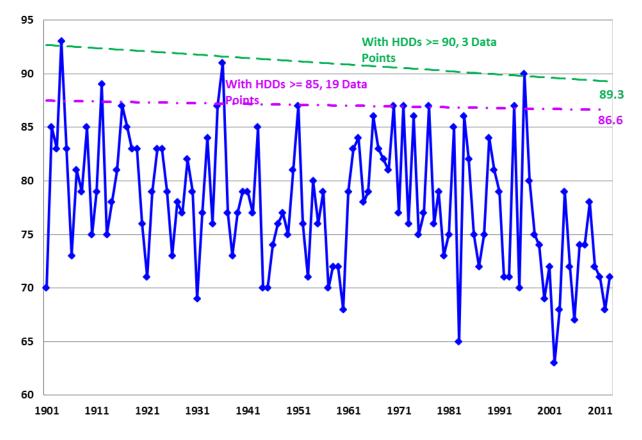
Design Day calculations use the most severe temperature that could occur during any one day for determining demand produced during that day based upon expected number of customers being served on that day. As previously discussed in various discovery responses, CenterPoint Energy uses a temperature of minus 25 degrees, which is based upon the coldest days that have occurred during the last 100+ years.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> As discussed above, "Design Day" represents the coldest possible 24 hour period, whereas "Peak Day" represents a likely-to-occur cold weather event, which is used as part of the determination of "normal" or "average" weather for calculating seasonal and/or annual gas load.

<sup>&</sup>lt;sup>2</sup> For example, see the response to DOC-004 part B in Docket G999/AA-12-756 which is attachment B to these reply comments.

Since Design Day is used to estimate the required capacity on the coldest possible day, the ramifications of under estimating demand on a Design Day are much worse than underestimation of gas load during "normal" or "average" weather over a season or year. The Company believes relying on the lowest daily temperature from only the last 20 years is too risky for this type of forecast and strongly advises against limiting Design Day to a shorter period of time than is currently used.

Additional analysis was performed on the Company's data base of coldest temperatures recorded year since 1901 and the results are as follows:



MSP WS Maximum HDDs 1900 - 2013

A review of the coldest day of each year (only days with 85 HDDs and above) shows that these extreme weather events (19 in total) did not all occur within close proximity of each other. In fact, several gaps occurred between events as chronicled below:

- The first occurrence was in 1901 and four more occurred by 1917. Then, no extreme temperatures occurred until 18 years later, in 1935.
- From 1935 to 1951, there were four occurrences, then no extreme temperatures for another 15 years until 1966.
- From 1966 until 1983, there were six occurrences, then no extreme temperatures for another 11 years, until 1994.
- The last extreme occurrence then came in 1996, 17 years ago.

There is no obvious cycle to determine when one of these cold days may occur. Having several years (even more than 20) go by without extremely cold temperatures does not preclude the reoccurrence of extreme cold temperatures in the future.

The green line at the top represents the slope using only the extreme days with HDDs of 90 or more (3 data points). Using more data points, the purple line shows the slope using extreme days with 85 or more HDDs (19 data points). This method shows a Design Day of 86.6 HDDs. Based on these results and the fact that the last extreme occurrence had 90 HDDs, CenterPoint believes use of 90 HDDs or -25 degrees as a Design Day temperature is reasonable, even necessary in order to appropriately plan for extreme weather.

Please contact me at (612) 321-5078 if you have any questions.

Sincerely,

/s/ Marie M. Doyle Regulatory Services (612) 321-5078

## AFFIDAVIT OF SERVICE

STATE OF MINNESOTA ) ) ss. COUNTY OF HENNEPIN )

Marie M. Doyle, being first duly sworn on oath, deposes and says she served via e filing or caused to be served electronically on behalf of CenterPoint Energy: its Request for Change in Demand Units for the 2013-2014 heating season on the Minnesota Public Utilities Commission; on the Office of Energy Security (OES) and; on the Office of the Attorney General - Residential Utilities Division; and on those on the attached service list to those requesting paper, by delivering by hand at the respective addresses on the list or by placing in the U.S. Mail at the City of Minneapolis.

/s/

Marie M. Doyle, Rates Analyst Regulatory Services CenterPoint Energy

Subscribed and sworn to before me this 9th day of September, 2012

<u>/s/ Mary Jo Schuh</u> Notary Public Term expires: 01/31/2015 Sharon Ferguson Department of Commerce 85 7th Place E Ste 500 Saint Paul MN 55101-2198

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## ATTACHMENT A

		Penalty/SMS commodity Charges							
	Ac	Actual SMS		Actual DDVC		Charges if only		DDVC Charges if	
Row Labels	(	Charges		Charges		30,000 SMS		only 30,000 SMS	
2008	\$	16,013	\$	-	\$	13,888	\$	62,307	
2009	\$	78,429	\$	22,583	\$	67,949	\$	300,785	
2010	\$	77,969	\$	5,812	\$	67,784	\$	227,871	
2011	\$	80,709	\$	6,360	\$	72,068	\$	187,641	
2012	\$	88,747	\$	3,981	\$	77,161	\$	309,261	
2013	\$	16,366	\$	2,243	\$	14,388	\$	34,597	
Grand Total	\$	358,232	\$	40,980	\$	313,238	\$	1,122,462	

	Demand Charges							
	60,000 SMS		3	0,000 SMS	Term (Months)			
monthly:	\$	130,800	\$	65,400	60			
2008	\$	261,600	\$	130,800	2			
2009	\$1	,569,600	\$	784,800	12			
2010	\$1	,569,600	\$	784,800	12			
2011	\$1	1,569,600	\$	784,800	12			
2012	\$1	1,569,600	\$	784,800	12			
2013	\$1	,308,000	\$	654,000	10			
TOTALS	\$7	7,848,000	\$	3,924,000	60			

	TOTAL of Charges: Penalty/SMS and Demand Charges							
	60K SMS		30K SMS	30K less 60K				
2008	\$ 277,613	\$	206,995	\$	(70,617)			
2009	\$ 1,670,612	\$	1,153,534	\$	(517,078)			
2010	\$ 1,653,380	\$	1,080,454	\$	(572 <i>,</i> 926)			
2011	\$ 1,656,669	\$	1,044,509	\$	(612,159)			
2012	\$ 1,662,329	\$	1,171,222	\$	(491,107)			
2013	\$ 1,326,609	\$	702,985	\$	(623,625)			
TOTALS	\$ 8,247,212	\$	5,359,700	\$	(2,887,512)			

SMS charges shown above represent the variable/commodity cost associated when additional gas (above the 5% tolerance) is used under Northern Natural Gas's System Management Service (SMS). The SMS service is a no-notice service which provides additional tolerances for shippers to protect against out-of-balance charges.

DDVC penalties shown above represent the penalties incurred when additional gas (above the 5% tolerance above nominated volumes) is used.

Demand Charges shown above represent the cost of SMS service which is incurred regardless of how much the SMS service is utilitized.

# **Attachment B**

#### Department of Commerce/Division of Energy Resources UTILITY INFORMATION REQUEST

DOCKET NO. G-999/AA-12-756

#### **CenterPoint Energy Response**

Requested By: Adam J. Heinen / Michelle St. Pierre/ Angela Byrne

Date Received: August 6, 2012

Response Date: September 5, 2012

Respondent/s Name: Marie M. Doyle

Respondent/s Title, Department: Sr. Rates Analyst, Regulatory Services

Confidential: No

#### REQUEST NO.: DOC-004

**REQUEST:** Supply Portfolio (Table G16 and Attachment G19)

- (A) Please list the entitlement level for each specific service, By PGA pipeline, (in quantity of Mcf of MMBtu per day) transporting gas to your distribution system during the 2011-2012 heating season. Please clearly identify volumes that do not serve design day.
- (B) Design Day Forecast (where applicable for each PGA system)
  - (1) Please provide a complete description of the method used by your Company to compute its design-day forecast for firm customers.
  - (2) Please identify the approximate frequency that your utility computes its design day forecast?
  - (3) Please identify your utility's most recent firm sales class(es) Minnesota design day forecast? Please identify the date that this forecast was performed.
  - (4) If your utility has updated its design day study methodology in the past five years, please provide the date that your utility implemented the change in the methodology.
  - (5) Please discuss the underlying rationale for the updating of the design day study methodology discussed in response to Part (B)(4) above.
  - (6) Please describe the effects the revised methodology, as discussed in response to Part (B) (4) above, has had on your utility's reserve margin.
- (C) How many different suppliers does your utility actively use during the heating season as:
  (1) Firm long-term suppliers?

# **Attachment B**

- (2) Firm spot suppliers?
- (3) Interruptible long-term and spot suppliers?
- (D) Please provide a complete explanation concerning how peak shaving affects your utility's portfolio, particularly with respect to reliability.
- (E) Please provide a complete explanation concerning how storage affects your utility's portfolio, particularly with respect to reliability.

#### **RESPONSE:**

#### Part A:

See attached worksheet.

#### Part B: (1)

Design day is a 24-hour period of the greatest possible gas requirements to meet firm customer needs. For design day conditions, the assumption is 90 heating degree days (HDD) or (-25) degrees Fahrenheit average daily temperature. This assumption is based on a search of NOAA historical average daily temperatures at the Minneapolis/St. Paul weather station from 1900 to current, and represents an extreme that has been matched or exceeded twice in that period (matched as recently as 1996).

The Company's initial design day projection of 1,216,000 dekatherms was made for the 2011/2012 heating season and filed in Demand Entitlement Docket G-008/M-11-1078 on November 1, 2011. In consultation with Concentric Energy, CPE updated its previous methodology as described in its supplemental filing on April 30, 2012 in the 11-1078 Docket. (CPE has attached the relevant pages from this filing to this response). The revised Design Day was estimated at 1,275,935 (pg. 9 of the April 30, 2012 supplement). The updated method was also provided in the latest Demand Entitlement filed on August 1, 2012 in docket G-008/M-12-864.

CPE's method uses a statistical model that estimates Use-Per-Customer (UPC) using all daily sales data for the last 6 heating seasons. The Design Day is set by estimating UPC at the upper 95% confidence interval in order to reduce the chance of estimation error to less than 2.5%.

### Part B: (2)

CenterPoint Energy computes a new design day forecast at least annually and the Company continuously monitors and reviews the forecast. The forecast is used for the Company's annual supply planning and budgeting process, and is filed annually with the Minnesota Department of Public Service on July 1 to comply with rules 7610.0800 - 7610.1130.

#### Part B: (3)

For the 2011/2012 heating season, the Minnesota design day forecast for the Company was 1,216,000 Dekatherms, The forecast was computed in April / May 2011. The revised forecast (April 2012) indicates a higher design day of 1,275,935.

Part B: (4) See parts 1 and 3.

**Part B: (5)** Underlying rationale for change was to address the concern regarding a small number of data points used by CenterPoint Energy in its previous methodology due to a limited number of extreme weather experiences and to allow for use of more current use per customer (UPC) numbers in the calculation. The

# **Attachment B**

new methodology also accounts for the risk of error involved with relying on more current data to determine the UPC factor which may not be representative of actual UPC at Design Day temperatures.

**Part B: (6)** The new methodology reduces CenterPoint Energy's reserve margin because it increases the required Design Day capacity. This methodology more directly assigns the need to cover a range of expected outcomes to the Design Day calculation and provides a confidence level as to meeting the needs of firm customers when weather is extremely cold.

Part C: Number of Suppliers

- (1) 37
- (2) 39(3) 39

### Part D:

Peak shaving is installed to avoid pipeline demand costs, which must be paid for long periods and is only needed in peak times during the heating season. The Company's peak shaving facilities are reliable sources of supply used to meet short-term periods of peak demand. Peak shaving facilities can provide up to 310,800 MMBtu per day. Peak shaving facilities are not designed for continuous operation over extended periods. The Company has numerous facilities, which helps minimize the impact of any individual plant failures on total system deliverability.

### Part E:

Storage provides reliable firm supply. The storage contract provides excellent control of swing and peak requirements during the peak heating months and is used to control significant swing requirements in other months, particularly in the months of October and April. Storage may also provide a reliable source should an unlikely force majeure event prevent delivery of firm gas.

Storage use also provides price stability to the portfolio through purchases over the summer period and withdrawals over the winter period at the average costs incurred during summer.

This response contains no proprietary or trade secret information.