

**STATE OF MINNESOTA  
BEFORE THE PUBLIC UTILITIES COMMISSION**

Beverly Jones Heydinger	Chair
Betsy Wergin	Vice Chair
Nancy Lange	Commissioner
Dan Lipschultz	Commissioner
John Tuma	Commissioner

**In the Matter of the 2013-2014 Annual  
Automatic Adjustment Reports**

**DOCKET NO. G999/ AA-14-580**

**COMMENTS OF THE OFFICE OF THE  
ATTORNEY GENERAL**

The Office of the Attorney General—Residential Utilities and Antitrust Division (“OAG”) submits the following Comments in response to the Public Utilities Commission’s Notice of Extended Response Comment Period filed May 29, 2015. The OAG is concerned with the amount of unauthorized gas that is being consumed by interruptible customers during curtailment periods. The OAG requests that the utilities provide additional information in Reply Comments so that the Commission may ensure firm system reliability and improved performance from the utilities.

**I. BACKGROUND**

During the 2013-2014 winter many utilities were required to curtail interruptible customer’s usage. Most utilities, however, did not obtain the curtailment response that they were expecting due to non-compliant interruptible customers that continued to consume unauthorized gas. The Department of Commerce (“DOC”) has conducted analysis and made recommendations in Xcel’s Petition for Modifications to the Interruptible Service Tariff Docket No. 14-540 and this docket. Additionally, each utility has had the opportunity to reply to the DOC’s review of the AAA reports.

## **II. NON-COMPLIANT INTERRUPTIBLE CUSTOMERS COMPROMISE SYSTEM RELIABILITY AND SHIFT COSTS ONTO FIRM CUSTOMER CLASSES, INCLUDING RESIDENTIAL AND SMALL BUSINESS CUSTOMERS.**

Design- and peak-day demand are based on the usage of firm customers, not interruptible usage. When interruptible customers do not interrupt, they can cause at least three problems.

First, non-compliant interruptible customers can cause system reliability issues because the system is not designed to meet their usage levels during critical system peaks. Utilities call for curtailment during peak demand because curtailment is necessary in order to ensure there is enough gas for firm customers. In the recent past there have been very few instances when the utilities have instructed interruptible customers to curtail their usage. When interruptible customers do not curtail usage during critical peaks, as they have agreed to do, it creates a risk to system reliability.

Second, interruptible customers receive discounted rates in return for their agreement to stop using gas when curtailment is required. But if interruptible customers do not curtail when they are required by tariff to do so, it is inequitable for them to receive the benefits of these reduced rates.

Third, future peak day forecasting can be impaired if interruptible customers consume natural gas during a peak day period. Future peak day forecasting is used in making demand entitlement decisions. Future peak day demand forecasts are estimated from the utility's historical data. Therefore, when interruptible customers do not curtail usage during critical system peaks, their consumption is included in future demand entitlement decisions, which will lead to increased demand entitlement costs for firm customers.

Utilities are ultimately responsible for these problems, because they are responsible for system reliability and can influence the behavior of their customers. In particular, utilities can influence the level of non-compliant interruptible customers through outreach and

communication with their customers and curtailment and penalty gas fees, among other things. It is necessary to ensure that curtailment and penalty gas fees are set at appropriate levels to ensure that interruptible customers have incentives to follow through on their agreements to curtail, because profit maximizing firms will accept the fees if they are less financially damaging than switching to alternate fuel sources. In its Comments on August 4, 2014, the DOC concluded that “the penalty charge(d) should be set at a level that is punitive enough that unauthorized use is eliminated or only occurs infrequently.”<sup>1</sup> The OAG interprets the DOC’s statement to mean that the appropriate penalty is either the cost of the most expensive substitute (i.e. alternative fuel, such as propane or fuel oil #2) plus the transaction costs incurred by the customer to switch to the alternative fuel, or the cost that is necessary to make firm customers whole for interruptible customers’ non-compliance with curtailments.<sup>2</sup> The DOC recommends that the penalty for non-compliant interruptible customers should be the greater of these two options.

### **III. INTERRUPTIBLE CUSTOMERS’ CURTAILMENT PERFORMANCE SHOULD BE MEASURED BY UTILITIES USING AN IMPROVED METRIC THAT PROVIDES ADDITIONAL INFORMATION.**

In addition to its recommendations regarding curtailment and penalty gas fees, the DOC recommended that the responses to curtailments be monitored to determine whether the fees and other adjustments made by the utilities are enough to properly incent interruptible customers to curtail their usage. It is not clear what metric or method the DOC would use to determine whether the utilities’ improved curtailment compliance performance is sufficient. It is important to have an effective metric or method to measure curtailment performance since failing to predict

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<sup>1</sup> See August 4, 2014, DOC Comments, Docket 14-540, at 3. The DOC acknowledged that some of unauthorized gas consumption is unavoidable.

<sup>2</sup> *Id.*; See May 5, 2015, DOC 2013-2014 AAA Review at 67.

critical system interruptions accurately increases the risk of compromised reliability. This could result in significant financial harm to firm customers.

In the DOC's AAA Review,<sup>3</sup> it assessed curtailment penalties by calculating the penalties as a percent of total costs incurred, and unauthorized gas usage as a percentage of sales by each utility. While this may be useful information, this analysis does not lend itself to a direct year-to-year comparison since both measures are relative. Specifically, the percentage of unauthorized gas sales is related to actual annual dekatherms sold in a year. Such a comparison does little to inform regulators about a utility's curtailment compliance performance, since the percentage of unauthorized sales can rise or fall based, at least in part, on the utility's overall sales. For this reason, it is not the best analysis to measure improved curtailment compliance performance over time.

For example, CenterPoint Energy ("CenterPoint") used a similar analysis in its Reply Comments filed on May 15, 2015, when it stated that "(u)authorized gas use as a percentage of total throughput on days of curtailment was less than 1%." While this metric is more detailed, since it focuses on days of curtailment rather than annual sales, it still fails for several reasons to provide a useful metric that can be compared from year to year. First, CenterPoint's methodology does not directly related to what is needed to maintain system reliability. For instance, if reliability is compromised at 0.5% throughput on days of curtailment, then CenterPoint could be putting firm customers at unnecessary risk due to its poor performance and inability to run its interruptible program effectively. Second, congestion within the distribution system is location specific, which means that unauthorized gas usage up to 1% of throughput on days of curtailment could still pose system reliability issues. Third, CenterPoint's analysis is

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<sup>3</sup> *Id.*

also a relative measure—as consumption increases so does the amount associated with an unauthorized usage of 1%. Fourth, if CenterPoint believes that 1% is an acceptable amount of unauthorized gas usage, the company may be causing too many of its customers to be interrupted. If CenterPoint could more accurately predict curtailment response, so that unauthorized gas usage went to 0.1% of throughput, it could interrupt fewer customers.

CenterPoint also stated that since it has a “very small amount of unauthorized gas use” it does not need to change the language in its tariffs or its fees. CenterPoint seems to take the position that it has reached its potential with regard to its curtailment compliance performance. In response to an information request, however, CenterPoint estimated that during one of its curtailment events it received only 54% of the curtailment that it expected to receive.<sup>4</sup> This indicates that CenterPoint may need to not only make changes to its tariff language and fees, but also to other areas to improve the accuracy of its curtailment requests. If CenterPoint or other utilities in similar situations choose not to improve curtailment compliance performance or if they assert that current performance cannot be improved, it may be reasonable to begin allocating a proportion of demand costs to its interruptible class.

In order to get better information about curtailment, non-compliance, and their effect on the reliability of the system, utilities could calculate a metric that determines the difference between the amount of gas a utility expects to interrupt and actually interrupts during a curtailment event. This would be a useful metric to measure the curtailment compliance performance from year to year. Comparing expected interruptible volumes with actual interruptible volumes gets at the real problem, which is that reliability could be affected if a utility is not interrupting the amount of gas it expects during curtailment. The OAG obtained

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<sup>4</sup> See CenterPoint’s response to OAG Information Request 002, attached as Schedule 1.

information of this nature from both Xcel and CenterPoint through information requests.<sup>5</sup> Xcel received a low of 75%, an average of 85%, and a maximum of 91% of what it expected to interrupt during previous curtailment periods. CenterPoint received a low of 54%, an average of 94%, and a maximum of 100% of what it expected to interrupt during previous curtailment periods.<sup>6</sup> It is important to note that the companies method for estimation differed.

Comparing expected interruption versus actual interruption does not encompass all important aspects of the utilities' curtailment compliance performance, such as the locational congestion that occurs. For this reason, the OAG would like utilities in Reply Comments to discuss how they measure their own curtailment performance internally, and additional metrics that could be used to ensure that utilities' customer outreach and fees are effective at increasing curtailment compliance.

Dated: June 26, 2015

Respectfully submitted,

LORI SWANSON  
Attorney General  
State of Minnesota

s/ **Ryan Barlow**  
RYAN P. BARLOW  
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ATTORNEYS FOR OFFICE OF THE  
ATTORNEY GENERAL—RESIDENTIAL  
UTILITIES AND ANTITRUST DIVISION

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<sup>5</sup> See Xcel's response to OAG Information Request 002, attached as Schedule 2.

<sup>6</sup> Average was calculated as a straight average, not weighted, for both companies.

**Office of the Attorney General**  
UTILITY INFORMATION REQUEST

DOCKET NO. G-999/AA-14-580

**CenterPoint Energy Response**

Requested By: Ryan Barlow

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Date Received: June 9, 2015

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Response Date: June 19, 2015

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Respondent/s Name: Marie M. Doyle / John Heer / Tim Olson

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

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Confidential: No

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**REQUEST NO.:** OAG - 002

Reference: Interruption over report period

For each interruption period provide the number of therms the company *expected* to interrupt and the number *actually* interrupted. Explain, in laymen's terms, the method used for calculating the expected and actual number of therms interrupted and provide the detailed calculation in a live Excel spreadsheet. In addition, provide the total number of therms consumed over each interruption period. If interruption periods span more than one day, provide an additional break out by day for each of the questions above.

**RESPONSE:**

CenterPoint Energy ("CNP") has records of the forecasted daily load and the planned supplies to meet the expected load as of a specific point in time before the beginning of the gas day. When expected load exceeds planned supplies, the difference is planned to be met through curtailment from sales service or through additional peak shaving resources. It is important to note that the load and supplies can change throughout the gas day during a curtailment event as weather conditions, gas supplies, and customer loads change.

CNP also has records of the estimated curtailment that did occur calculated as the difference between the actual load and the estimated load at actual conditions. This difference is an approximation of the curtailment that occurred. The estimated load is calculated by inputting actual experienced temperature into the load curve equations.

CNP is compiling this information for the requested interruption periods and will provide it when it is available.

CNP assumes the request to provide “the total number of therms consumed over each interruption period” to be a request for the amount of unauthorized gas used by curtailed customers during each curtailment period. That information has been previously provided in DOC-018 in the present docket and provided to the OAG on June 4, 2015.

For additional context, a general description of CNP’s curtailment process is provided below.

CenterPoint Energy approaches each period of curtailment based on the unique set of circumstances presented at the time of the curtailment decision. Based on forecasted conditions and corresponding projected gas load, the Gas Control department consults with the Engineering and Gas Supply departments to assess the need for and extent of curtailment required. The estimated curtailment required may include a variety of factors, such as quantity, locations, possible durations, supply constraints, delivery system constraints and other relevant factors. Using the developed requirements, CNP will sort its interruptible customer database as needed and identify customers for curtailment.

In a typical supply curtailment (e.g., curtailment of system supply customers because the pipeline entitlement usage is at capacity), a customer database is sorted for customers on system supply, and then arranged in order of increasing margin. The database has an associated value for the customers’ past peak daily energy usage. CNP will use these peak day values as adjusted for the actual forecasted conditions and other relevant factors to accumulate enough natural gas energy to curtail, with a conservative contingency amount included, to balance the available system supply with forecasted usage. The customers are then contacted to curtail their gas use. During a curtailment event, CNP continues to assess the evolving conditions on its system as actual weather can, and often does, deviate from forecasted weather. If the weather warms from the forecast and system supply is available, some customers will be released from the curtailment. If the weather turns colder than forecasted, additional customers may be curtailed. CNP’s focus during a supply curtailment is not with exactly how much load was curtailed but with balancing of available supply with actual customer demand.

In an operational or distribution system constraint curtailment, the decisions are typically geographical, limited to an area of low pressure on the distribution system. In these cases, the customer data base is sorted by location and margin and considering the forecasted or actual weather and expected loads, decisions are made on the extent of curtailment required. These operational curtailments may involve just a few customers and may only be for a few hours during peak system demand periods. During operational curtailments, CNP’s overriding objective is to maintain system reliability by focusing on maintaining sufficient pressure during the curtailment.

Curtailment situations are dynamic; decisions are made based on then-current data and modified as the actual situation changes. Our curtailment management is a look-forward philosophy with our goal to efficiently manage system supply and distribution reliability.



- Non Public Document – Contains Trade Secret Data  
 Public Document – Trade Secret Data Excised  
 Public Document

Xcel Energy

Docket No.: G999/AA-14-580

Response To: Office of Attorney General    Information Request No.    2

Requestor: Ryan Barlow

Date Received: June 9, 2015

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Question:

Reference: Interruption over report period

For each interruption period provide the number of therms the company *expected* to interrupt and the number *actually* interrupted. Explain, in laymen's terms, the method used for calculating the expected and actual number of therms interrupted and provide the detailed calculation in a live Excel spreadsheet. In addition, provide the total number of therms consumed over each interruption period. If interruption periods span more than one day, provide an additional break out by day for each of the questions above.

Response:

Attachment A contains the expected therms interrupted, the total penalty gas therms consumed during interruption and an estimate of therms interrupted. There is no way to know how many therms were actually interrupted as usage can vary based on the conditions on any given day.

The estimated impact of a curtailment event, i.e. estimated therms interrupted, is calculated using a linear regression model of customer use given daily average temperature. The model takes two inputs – date, and daily average temperature. The date determines if the event date is a weekday or weekend. Then, given the temperature, the model is evaluated for estimated customer use. The regression coefficients are derived from the relationship between actual customer use by class and the daily average temperature for weekdays and weekends. This model provides an estimate of how many therms on a given day may be affected by a curtailment event.

Attachment B is the model used to estimate the terms interrupted. Please note that Attachment B, in live Excel spreadsheet format is marked “Non-Public in its Entirety” 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. A portion of Attachment B also contains private data on individuals, such as customer names and addresses. This information is non-public data under Minn. Stat. § 13.679.

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Department: Billing Operations/Gas Supply & Planning/Gas Planning  
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Date: June 19, 2015

Event Date	<u>1/5/2014</u>	<u>1/6/2014</u>	<u>1/7/2014</u>	<u>1/8/2014</u>	<u>1/21/2014</u>	<u>1/22/2014</u>	<u>1/23/2014</u>	<u>1/25/2014</u>	<u>1/26/2014</u>	<u>1/27/2014</u>	<u>1/28/2014</u>	<u>2/5/2014</u>	<u>2/6/2014</u>	<u>2/9/2014</u>	<u>2/10/2014</u>	<u>2/25/2014</u>	<u>2/27/2014</u>	<u>3/1/2014</u>	<u>3/2/2014</u>	<u>3/3/2014</u>
<b>NNG (MN) Dth</b>	52,874	56,459	51,771	13,110	22,828	33,694	29,671	43,031	46,181	55,287	52,943	30,593	49,817	22,947	31,050	22,826	52,161	46,968	46,968	46,692
<b>VGT (ND) Dth</b>	13,320	14,102	13,046	6,088	6,484	8,766	8,507	11,189	12,638	14,455	13,310	8,716	12,605	6,154	6,817	6,492	13,134	12,042	12,042	11,901
<b>Total Dth</b>	66,194	70,561	64,817	19,198	29,312	42,460	38,178	54,220	58,819	69,742	66,253	39,309	62,422	29,101	37,867	29,318	65,295	59,010	59,010	58,593
<b>Therms Expected to Interrupt</b>	661,940	705,610	648,170	191,980	293,120	424,600	381,780	542,200	588,190	697,420	662,530	393,090	624,220	291,010	378,670	293,180	652,950	590,100	590,100	585,930
<b>Total Dekatherms Consumed</b>	7,464	7,779	7,406	4,737	6,159	8,539	7,361	6,662	10,952	10,613	9,759	6,282	5,637	2,841	8,285	3,860	6,699	5,236	8,137	8,120
<b>Total Therms Consumed*</b>	74,640	77,790	74,060	47,370	61,590	85,390	73,610	66,620	109,520	106,130	97,590	62,820	56,370	28,410	82,850	38,600	66,990	52,360	81,370	81,200
*This includes penalty usage, excluding limited firm service customers.																				
<b>Estimated Therms Interrupted**</b>	587,300	627,820	574,110	144,610	231,530	339,210	308,170	475,580	478,670	591,290	564,940	330,270	567,850	262,600	295,820	254,580	585,960	537,740	508,730	504,730
**This is our best estimate of actual curtailment based on estimated interruption less penalized usage.																				

Docket No. G999/AA-14-580  
OAG Information Request No. 2  
Attachment B

**Attachment B is considered  
Non-Public in its Entirety**



LORI SWANSON  
ATTORNEY GENERAL

# STATE OF MINNESOTA

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June 26, 2015

Mr. Daniel Wolf, Executive Secretary  
Minnesota Public Utilities Commission  
121 Seventh Place East, Suite 350  
St. Paul, MN 55101-2147

**Re: *In the Matter of the 2013-2014 Annual Automatic Adjustment Reports***  
**MPUC Docket No. G999/ AA-14-580**

Dear Mr. Wolf:

Enclosed and e-filed in the above-referenced matter please find Comments of the Office of the Attorney General—Residential Utilities and Antitrust Division.

By copy of this letter all parties have been served. An Affidavit of Service is also enclosed.

Sincerely,

**s/ Ian Dobson**

IAN DOBSON  
Assistant Attorney General

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Enclosure



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Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	Yes	OFF_SL_14-580_G999-AA-14-580
Kristine	Anderson	kanderson@greatermngas.com	Greater Minnesota Gas, Inc.	202 S. Main Street  Le Sueur, MN 56058	Electronic Service	No	OFF_SL_14-580_G999-AA-14-580
Marie	Doyle	marie.doyle@centerpointenergy.com	CenterPoint Energy	800 LaSalle Avenue P O Box 59038 Minneapolis, MN 554590038	Electronic Service	No	OFF_SL_14-580_G999-AA-14-580
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Michael	Greiveldinger	michaelgreiveldinger@alliantenergy.com	Interstate Power and Light Company	4902 N. Biltmore Lane  Madison, WI 53718	Electronic Service	No	OFF_SL_14-580_G999-AA-14-580
Nicolle	Kupser	nkupser@greatermngas.com	Greater Minnesota Gas, Inc.	202 South Main Street P.O. Box 68 Le Sueur, MN 56058	Electronic Service	No	OFF_SL_14-580_G999-AA-14-580
Amber	Lee	ASLee@minnesotaenergyresources.com	Minnesota Energy Resources Corporation	2665 145th St W  Rosemount, MN 55068	Electronic Service	No	OFF_SL_14-580_G999-AA-14-580
Paul J.	Lehman	paul.lehman@xcelenergy.com	Xcel Energy	414 Nicollet Mall  Minneapolis, MN 554011993	Electronic Service	No	OFF_SL_14-580_G999-AA-14-580
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	OFF_SL_14-580_G999-AA-14-580
Regulatory	Records	Regulatory.Records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7  Minneapolis, MN 554011993	Electronic Service	No	OFF_SL_14-580_G999-AA-14-580

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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