

**Table of Contents**  
**Schedules to Direct Testimony of Matthew J. King**  
**OAH Docket No. 71-2500-37763**  
**MPUC Docket Nos. G-008/M-21-138, G-004/M-21-235, G-002/CI-21-610, G-011/CI-21-611**

<b>Schedule</b>	<b>Designation</b>	<b>Description</b>
Schedule 1 (MJK-D-1)	Public	Professional Resume
Schedule 2 (MJK-D-2)	Public	Disallowances Calculations – Xcel
Schedule 3 (MJK-D-3)	Public	Disallowances Calculations – MERC
Schedule 4 (MJK-D-4)	Public	Disallowances Calculations - CNP
Schedule 5 (MJK-D-5)	Public	Disallowances Calculations - GP
Schedule 6 (MJK-D-6)	Public	All Public Gas Utilities Responses to DOC IR No. 5 (attachments excluded)
Schedule 7 (MJK-D-7)	Public	Relevant Portions of Xcel’s and CNP’s Responses to DOC IR No. 55
Schedule 8 (MJK-D-8)	Public	All Gas Utilities Public Response to DOC IR No. 7(h) and (i) (attachments excluded)
Schedule 9 (MJK-D-9)	Public	CNP Response Public to DOC IR No. 39 and Attach. D
Schedule 10 (MJK-D-10)	Public	Daily Event Volumes
Schedule 11 (MJK-D-11)	Public	Extreme Cold & Winter Weather, Update #1, U.S. Dep’t of Energy (Feb. 16, 2021)
Schedule 12 (MJK-D-12)	Public	Xcel Response to DOC IR No. 34
Schedule 13 (MJK-D-13)	Public	Xcel Response to DOC IR No. 47
Schedule 14 (MJK-D-14)	Public	MERC Response to DOC IR No. 52
Schedule 15 (MJK-D-15)	Public	MERC Response to DOC IR No. 53
Schedule 16 (MJK-D-16)	Public	Xcel Response to DOC IR No. 48
Schedule 17 (MJK-D-17)	Public	CNP Response to DOC IR No. 44
Schedule 18 (MJK-D-18)	Public	Xcel Response to DOC IR No. 12
Schedule 19 (MJK-D-19)	Public	MERC Response to DOC IR No. 54
Schedule 20 (MJK-D-20)	Public	Xcel Response to DOC IR No. 49



## EDUCATION •

Master of Science, Management Science & Engineering, Stanford University, 2018

Bachelor of Science, Industrial and Systems Engineering, Georgia Institute of Technology, 2012

## PROFESSIONAL MEMBERSHIPS •

Institute of Industrial Engineers

## PROFESSIONAL EXPERIENCE •

**GDS Associates, Inc.**, Marietta, GA, 2009 to Present

Mr. King started work as a coop 2009 and began full-time employment in 2013. In 2016, Mr. King worked part-time while pursuing his MS from Stanford. Upon completion, Mr. King returned to full-time employment in 2018. Currently employed as a Senior Project Manager, responsibilities involve regulatory review and development of client testimony, technical modeling analytics, review of key strategic market issues as well as supporting principles across the firm.

*Specific Project Experience Includes:*

### REGULATORY / JUDICIAL PROCEEDING

Acted as expert witness and provided support, including drafting of testimony and analytical work, to GDS witnesses in regulatory proceedings before various commissions. Specific experience includes:

- *Wabash Valley Power Associates, Inc. Member Exit Case*, Federal Energy Regulatory Commission Docket No. ER20-1041-003
- *In the Matter of Consideration of Regulations Implementing Senate Bill 123 related to Formation of an Electric Reliability Organization*, Regulatory Commission of Alaska R-20-001/002/003
- *Joint Report and Application of Entergy Texas, Inc. and East Texas Electric Cooperative, Inc., for Regulatory Approvals Related to Transfers of the Hardin County Peaking Facility and a Partial Interest in Montgomery County Power Station*, Public Utility Commission of Texas Docket No. 50790
- *Application of Palmetto Utilities, Inc. for Adjustment (Increase) of Rates and Charges, Terms and Conditions, for Sewer Service Provided to Customers in its Richland and Kershaw County Service Areas*, Public Service Commission of South Carolina Docket No. 2019-281-S
- *Northern Natural Gas Company 2019 NGA General Section 4 Rate Case*, Federal Energy Regulatory Commission Docket No. RP19-1353-000
- *Tariff Filing of Green Mountain Power requesting an increase in its base rates starting January 1, 2019, to be fully offset by bill credits through September 30, 2019*, State of Vermont Public Utility Commission Case No. 18-0974-TF
- *Southwestern Electric Cooperative, Inc. v. Midcontinent Independent System Operation, Inc.; Dynegy, Inc.; and Sellers of Capacity into Zone 4 of the 2015-2016 MISO Planning Resource Auction*, Federal Energy Regulatory Commission Docket No. EL15-72-000

GDS ASSOCIATES INC

1850 Parkway Place Suite 800 • Marietta, GA 30067

770-425-8100 • Fax 770-426-0303 • [matt.king@gdsassociates.com](mailto:matt.king@gdsassociates.com)

Marietta GA • Austin TX • Auburn AL • Madison WI • Manchester NH • Orlando FL • Augusta ME • Kirkland WA • Camarillo CA • [gdsassociates.com](http://gdsassociates.com)

## **ALASKA INSTITUTIONAL REFORM**

Involved in researching and design recommended approach to overhaul the Alaska Railbelt transmission grid regulatory structure, including evaluation of a potential transmission-only utility. Presented package to Alaska commission and stakeholder meetings. Subsequently was heavily involved in 18-month regulatory process for implementing legislation regarding formation of an electric reliability organization tasked with reliability standards, open access transmission and interconnection, and regional planning.

## **RTO MARKET EVOLUTION & STAKEHOLDER GROUP PARTICIPATION**

Track and participate in various RTO stakeholder forums related to markets, including energy, financial transmission rights, ancillary services, and capacity, and other groups including planning and board-level activity. Provide targeted summary information related to RTO market evolution and regulatory feedback and provide feedback on behalf of clients on key issues to RTO stakeholder groups.

## **INTEGRATED RESOURCE PLANNING, PROCUREMENT STRATEGIES, AND RISK MANAGEMENT**

Performed economic analyses of supply alternatives, long-term strategic planning for optimum portfolio diversification, and implementing appropriate hedging and risk mitigation strategies. Experience identifying utility client's short-term and long-term supply needs and developing short-term and long-term procurement strategies to reasonably meet those requirements, as well as appropriate risk management plans to manage the procurement process.

## **GENERATION EVALUATION AND ACQUISITION**

Performed extensive economic modeling analyses of power supply alternatives, including coal, natural gas (combined-cycle and combustion turbine), nuclear, wind, solar, hydro-fueled facilities. For new generation projects, work has included negotiations of project agreements, acquiring transmission and gas pipeline interconnections, and securing financing arrangements. For all projects, detailed power cost evaluations were conducted including projected development costs, alternative fuel price and financing scenarios, and the expected costs of purchasing power requirements from the market.

## **RTO MARKET OPERATIONS**

Assisted numerous clients with managing all facets of RTO market operations and technical requirements, including interaction and optimization of capacity, energy, ancillary service, and congestion management market participation. Also developed processes and systems to enable clients to comply with market operations and requirements for load-serving entities as well as generation entities in ERCOT, MISO, New England ISO, PJM, and SPP organized markets. Created systems to allow for review of load, generation, and congestion management performance on weekly, monthly, and fiscal year basis in addition to overall market settlement and financial impact.

## **SUPPLY PROCUREMENT**

Prepared and managed numerous solicitation / Requests for Proposals (RFPs) processes, including issuing RFPs for acquiring or divesting of supply resources and alternatives, managing solicitation process with potential respondents and addressing questions and issues with potential proposals, evaluating economic viability and financial creditworthiness of potential respondents, conducting economic feasibility analysis of proposals, negotiating terms and conditions of contracts with the successful respondents, assisting with obtaining financing for new generation, and assisting with procurement of transmission service. Also have extensive experience working with utilities that have purchase power agreements with investor-owned utilities that are based on formulary rate agreements, so understand key accounting issues, reviewing formulary rates for accuracy, and identifying ways to reduce cost under agreements.

## **RTO MARKET INTEGRATION**

Assisted with the integration-related activities of several utilities from unstructured markets to RTO markets, including transition of load, generation, transmission into energy, capacity, congestion management, and ancillary services markets. Conducted cost benefit analyses of such transitions prior to integration.

**Baseload**

<i>Line</i>	<b>Forecasted Minimum Load<sup>1</sup></b> <i>Dth</i> <i>(a)</i>	<b>Actual Baseload<sup>2</sup></b> <i>Dth</i> <i>(b)</i>	<b>Incremental Baseload</b> <i>Dth</i> <i>(c)=(a)-(b)</i>	<b>Applicable Length</b> <i>Days</i> <i>(d)</i>	<b>Total Volume</b> <i>Dth</i> <i>(e)=(c)x(d)</i>	<b>Price<sup>3</sup></b> <i>Dth</i> <i>(f)</i>	<b>Spot Purchases</b> <i>Dth</i> <i>(g)=(e)x(f)</i>
(1)	189,763	168,600	21,163	5	105,815	161.59	17,098,434

<i>Line</i>	<b>Incremental Baseload</b> <i>Dth</i> <i>(h)=(c)</i>	<b>Baseload Rate<sup>4</sup></b> <i>\$/Dth</i> <i>(i)</i>	<b>Baseload Cost</b> <i>\$</i> <i>(j)=(h)x(i)</i>	<b>Cost Reduction</b> <i>\$</i> <i>(l)=(g)-(j)</i>
(2)	21,163	2.74	58,092	17,040,342

1. DOC IR 55(g)
2. RLD-1, Schedule 2, p.26 Table 3
3. NNG-Ventura Index Price
4. DOC IR 42 Attachment A

**Intra-Weekend Purchases**

	<b>Flow Date</b>	<b>Volume<sup>1</sup></b>	<b>Price<sup>1</sup></b>	<b>Avoided Spot</b>
		<i>Dth</i>	<i>\$/Dth</i>	<b>Purchases</b>
<i>Line</i>	<i>(a)</i>	<i>(b)</i>	<i>(c)</i>	<i>(d)=(b)x(c)</i>
(1)	2/14/2021	14,442	95.00	1,371,990
(2)	2/15/2021	8,280	175.00	1,449,000
(3)			<b>Total</b>	<b>2,820,990</b>

1. RLD-1, Schedule 2, p.36

**Curtailements in Forecasting - February 14**

**2% Reserves**

	<b>Load Forecast<sup>1</sup></b>	<b>Reserves</b>	<b>Estimated Curtailment<sup>2</sup></b>	<b>Net Load</b>	<b>Baseload<sup>1</sup></b>	<b>Storage<sup>1</sup></b>	<b>Spot Purchases</b>
	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>
<i>Line</i>	<i>(a)</i>	<i>(b)=2%<math>\times</math>(a)</i>	<i>(c)</i>	<i>(d)=(a)+(b)-(c)</i>	<i>(e)</i>	<i>(f)</i>	<i>(g)=(d)-(e)-(f)</i>
(1)	754,477	15,090	60,000	709,567	168,600	190,213	350,754

	<b>Actual Spot Purchases<sup>1</sup></b>	<b>Spot Purchase Reduction</b>	<b>Applicable Length</b>	<b>Total Volume</b>	<b>Price<sup>3</sup></b>	<b>Cost Reduction</b>
	<i>Dth</i>	<i>Dth</i>	<i>Days</i>	<i>Dth</i>	<i>\$/Dth</i>	<i>\$</i>
<i>Line</i>	<i>(h)</i>	<i>(i)=(h)-(g)</i>	<i>(j)</i>	<i>(k)=(i)<math>\times</math>(k)</i>	<i>(l)</i>	<i>(m)=(k)<math>\times</math>(l)</i>
(2)	394,127	43,373	4	173,494	154.91	26,875,063

**5.5% Reserves**

	<b>Load Forecast<sup>1</sup></b>	<b>Reserves</b>	<b>Estimated Curtailment<sup>2</sup></b>	<b>Net Load</b>	<b>Baseload<sup>1</sup></b>	<b>Storage<sup>1</sup></b>	<b>Spot Purchases</b>
	<i>Dth</i>	<i>Days</i>	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>
<i>Line</i>	<i>(a)</i>	<i>(b)=5.5%<math>\times</math>(a)</i>	<i>(c)</i>	<i>(d)=(a)+(b)-(c)</i>	<i>(e)</i>	<i>(f)</i>	<i>(g)=(d)-(e)-(f)</i>
(3)	754,477	41,496	60,000	735,973	168,600	190,213	377,160

	<b>Actual Spot Purchases</b>	<b>Spot Purchase Reduction</b>	<b>Applicable Length</b>	<b>Total Volume</b>	<b>Price<sup>3</sup></b>	<b>Cost Reduction</b>
	<i>Dth</i>	<i>Dth</i>	<i>Days</i>	<i>Dth</i>	<i>\$/Dth</i>	<i>\$</i>
<i>Line</i>	<i>(h)</i>	<i>(i)=(h)-(g)</i>	<i>(j)</i>	<i>(k)=(i)<math>\times</math>(k)</i>	<i>(l)</i>	<i>(m)=(k)<math>\times</math>(l)</i>
(4)	394,127	16,967	4	67,867	154.91	10,512,947

1. RLD-1, Schedule 2, p.26 Table 3
2. Docket No. G-999/CI-21-135 OAG IR 118
3. NNG-Ventura Index Price

**Curtailements in Forecasting - February 17**

**2% Reserves**

	<b>Load Forecast<sup>1</sup></b>	<b>Reserves</b>	<b>Estimated Curtailment<sup>2</sup></b>	<b>Net Load</b>	<b>Baseload<sup>1</sup></b>	<b>Storage<sup>1</sup></b>	<b>Spot Purchases</b>
	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>
<i>Line</i>	<i>(a)</i>	<i>(b)=2%<math>\times</math>(a)</i>	<i>(c)</i>	<i>(d)=(a)+(b)-(c)</i>	<i>(e)</i>	<i>(f)</i>	<i>(g)=(d)-(e)-(f)</i>
(1)	644,628	12,893	40,000	617,521	168,600	190,213	258,708

	<b>Actual Spot Purchases<sup>1</sup></b>	<b>Spot Purchase Reduction</b>	<b>Applicable Length</b>	<b>Total Volume</b>	<b>Price<sup>3</sup></b>	<b>Cost Reduction</b>
	<i>Dth</i>	<i>Dth</i>	<i>Days</i>	<i>Dth</i>	<i>\$/Dth</i>	<i>\$</i>
<i>Line</i>	<i>(h)</i>	<i>(i)=(h)-(g)</i>	<i>(j)</i>	<i>(k)=(i)<math>\times</math>(j)</i>	<i>(l)</i>	<i>(m)=(k)<math>\times</math>(l)</i>
(2)	307,549	48,841	1	48,841	188.32	9,197,820

**5.5% Reserves**

	<b>Load Forecast<sup>1</sup></b>	<b>Reserves</b>	<b>Estimated Curtailment<sup>2</sup></b>	<b>Net Load</b>	<b>Baseload<sup>1</sup></b>	<b>Storage<sup>1</sup></b>	<b>Spot Purchases</b>
	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>
<i>Line</i>	<i>(a)</i>	<i>(b)=5.5%<math>\times</math>(a)</i>	<i>(c)</i>	<i>(d)=(a)+(b)-(c)</i>	<i>(e)</i>	<i>(f)</i>	<i>(g)=(d)-(e)-(f)</i>
(3)	644,628	35,455	40,000	640,083	168,600	190,213	281,270

	<b>Actual Spot Purchases</b>	<b>Spot Purchase Reduction</b>	<b>Applicable Length</b>	<b>Total Volume</b>	<b>Price<sup>3</sup></b>	<b>Cost Reduction</b>
	<i>Dth</i>	<i>Dth</i>	<i>Days</i>	<i>Dth</i>	<i>\$/Dth</i>	<i>\$</i>
<i>Line</i>	<i>(h)</i>	<i>(i)=(h)-(g)</i>	<i>(j)</i>	<i>(k)=(i)<math>\times</math>(j)</i>	<i>(l)</i>	<i>(m)=(k)<math>\times</math>(l)</i>
(4)	307,549	26,279	1	26,279	188.32	4,948,948

1. RLD-1, Schedule 2, p.26 Table 3
2. Docket No. G-999/CI-21-135 OAG IR 118
3. NNG-Ventura Index Price

**NNG Storage Incremental Utilization - February 17**

<i>Line</i>	<b>NNG MDWQ<sup>1</sup></b> <i>Dth</i> <i>(a)</i>	<b>NNG Withdrawal Plan<sup>2</sup></b> <i>Dth</i> <i>(b)</i>	<b>Incremental Storage</b> <i>Dth</i> <i>(c)=(a)-(b)</i>	<b>Price<sup>3</sup></b> <i>\$/Dth</i> <i>(d)</i>	<b>Avoided Spot Purchases</b> <i>\$</i> <i>(e)=(c)x(d)</i>
(1)	168,603	146,869	21,734	188.32	4,092,947

<i>Line</i>	<b>Incremental Storage</b> <i>Dth</i> <i>(f)=(c)</i>	<b>Storage Rate<sup>4</sup></b> <i>\$/Dth</i> <i>(g)</i>	<b>Storage Cost</b> <i>\$</i> <i>(h)=(f)x(g)</i>	<b>Cost Reduction</b> <i>\$</i> <i>(l)=(g)-(j)</i>
(2)	21,734	1.90	41,295	4,051,652

1. RLD-1, Schedule 2, p.18
2. RLD-1, Schedule 2, p.26 Table 3; forecasted load less planned baseload and spot purchases
3. NNG-Ventura Index Price
4. DOC IR 42 Attachment A



**Peaking Plant Dispatch - February 14**

<i>Line</i>	<b>Dispatch<sup>1</sup></b> <i>Dth</i> <i>(a)</i>	<b>Applicable Length</b> <i>Days</i> <i>(b)</i>	<b>Total Volume</b> <i>Dth</i> <i>(c)=(a)x(b)</i>	<b>Price<sup>2</sup></b> <i>\$/Dth</i> <i>(d)</i>	<b>Avoided Spot Purchases</b> <i>\$</i> <i>(e)=(c)x(d)</i>
(1)	79,698	4	318,792	154.91	49,382,475

1. RLD-1, Schedule 2, p.26 Table 3; forecasted load for Feb. 14 less Feb. 16

2. NNG Ventura Index Price

**Peaking Plant Dispatch - February 17**

<i>Line</i>	<b>Dispatch<sup>1</sup></b> <i>Dth</i> <i>(a)</i>	<b>Price<sup>2</sup></b> <i>\$/Dth</i> <i>(b)</i>	<b>Avoided Spot</b> <b>Purchases</b> <i>\$</i> <i>(c)=(a)x(b)</i>
(1)	78,000	188.32	14,688,960

1. SCY-D 6:11; 50% of Wescott maximum daily withdrawal capacity
2. NNG Ventura Index Price

**Curtailement - February 17**

<i>Line</i>	<b>Incremental Interruptible Load<sup>1</sup> <i>Dth</i> <i>(a)</i></b>	<b>Price<sup>2</sup> <i>\$/Dth</i> <i>(b)</i></b>	<b>Avoided Spot Purchases \$ <i>(c)=(a)x(b)</i></b>
(1)	15,000	188.32	2,824,800

1. Docket No. G-999/CI-21-135 OAG IR 118; estimate of incremental volumes not curtailed

2. NNG-Ventura Index Price

**Forecasting - February 17**

<i>Line</i>	<b>Feb. 13-16 Transportation<sup>1</sup></b> <i>Dth</i> <i>(a)</i>	<b>Feb. 17 Transportation<sup>1</sup></b> <i>Dth</i> <i>(b)</i>	<b>Transportation Reduction</b> <i>Dth</i> <i>(c)=(a)-(b)</i>	<b>Actual Sales Forecast<sup>1</sup></b> <i>Dth</i> <i>(d)</i>	<b>Adjusted Sales Forecast</b> <i>Dth</i> <i>(e)=(d)-(c)</i>	<b>Avoided Spot Purchases</b> <i>Dth</i> <i>(f)=(d)-(e)</i>
(1)	187,789	138,405	49,384	252,974	203,590	49,384

<i>Line</i>	<b>Avoided Spot Purchases</b> <i>Dth</i> <i>(g)=(f)</i>	<b>Spot Purchase Rate<sup>2</sup></b> <i>\$/Dth</i> <i>(i)</i>	<b>Avoided Spot Purchases</b> <i>\$</i> <i>(j)=(h)x(i)</i>
(2)	49,384	196.57	9,707,206

1. Exhibit SRM-D, Schedule 7
2. DOC IR 42, Attachment

**Curtailment - February 17**

<i>Line</i>	<b>Interruptible Load<sup>1</sup> <i>Dth</i> (a)</b>	<b>Curtailment Volume <i>Dth</i> (b)=0.5x(a)</b>	<b>Price<sup>2</sup> \$/<i>Dth</i> (c)</b>	<b>Avoided Spot Purchases \$ (d)=(b)x(c)</b>
(1)	9,751	4,875	196.57	958,307

1. Docket No. G-999/CI-21-135 DOC IR 4(A)

2. DOC IR 42, Attachment

**NGPL Storage Incremental Utilization**

<i>Line</i>	<b>Incremental Volume<sup>1</sup></b> <i>Dth</i> <i>(a)</i>	<b>Applicable Length</b> <i>Days</i> <i>(b)</i>	<b>Total Volume</b> <i>Dth</i> <i>(c)=(a)x(b)</i>	<b>Price<sup>2</sup></b> <i>\$/Dth</i> <i>(d)</i>	<b>Avoided Spot Purchases</b> <i>\$</i> <i>(e)=(c)x(d)</i>
(1)	2,170	5	10,850	188.63	2,046,668

1. Exhibit JTT-D, Schedule 4
2. DOC IR 42(a), Attachment

**Medford Storage Incremental Utilization**

<i>Line</i>	<b>Incremental Volume<sup>1</sup></b> <i>Dth</i> <i>(a)</i>	<b>Applicable Length</b> <i>Days</i> <i>(b)</i>	<b>Total Volume</b> <i>Dth</i> <i>(c)=(a)x(b)</i>	<b>Price<sup>2</sup></b> <i>\$/Dth</i> <i>(d)</i>	<b>Avoided Spot Purchases</b> <i>\$</i> <i>(e)=(c)x(d)</i>
(1)	5,000	4	20,000	190.53	3,810,503

1. Exhibit JTT-D, Schedule 4
2. DOC IR 42(a), Attachment

**BP Canada Storage Incremental Utilization - February 14**

<i>Line</i>	<b>Incremental Volume<sup>1</sup></b> <i>Dth</i> <i>(a)</i>	<b>Applicable Length</b> <i>Days</i> <i>(b)</i>	<b>Total Volume</b> <i>Dth</i> <i>(c)=(a)x(b)</i>	<b>Price<sup>2</sup></b> <i>\$/Dth</i> <i>(d)</i>	<b>Avoided Spot Purchases</b> <i>\$</i> <i>(e)=(c)x(d)</i>
(1)	12,000	4	48,000	190.53	9,145,208

<i>Line</i>	<b>Incremental Storage</b> <i>Dth</i> <i>(f)=(a)</i>	<b>Storage Rate<sup>3</sup></b> <i>\$/Dth</i> <i>(g)</i>	<b>Storage Cost</b> <i>\$</i> <i>(h)=(f)x(g)</i>	<b>Cost Reduction</b> <i>\$</i> <i>(i)=(e)-(h)</i>
(2)	12,000	1.96	23,532	9,121,676

1. Exhibit JTT-D, Schedule 4
2. DOC IR 42(a), Attachment
3. Exhibit SSD-D, Schedule 2



**BP Canada Storage Preservation - February 17**

<i>Line</i>	<b>Incremental Volume<sup>1</sup></b> <i>Dth</i> <i>(a)</i>	<b>Applicable Length</b> <i>Days</i> <i>(b)</i>	<b>Total Volume</b> <i>Dth</i> <i>(c)=(a)x(b)</i>	<b>Price<sup>2</sup></b> <i>\$/Dth</i> <i>(d)</i>	<b>Avoided Spot Purchases</b> <i>\$</i> <i>(e)=(c)x(d)</i>
(1)	70,000	1	70,000	176.18	12,332,767

<i>Line</i>	<b>Incremental Storage</b> <i>Dth</i> <i>(f)=(a)</i>	<b>Storage Rate<sup>3</sup></b> <i>\$/Dth</i> <i>(g)</i>	<b>Storage Cost</b> <i>\$</i> <i>(h)=(f)x(g)</i>	<b>Cost Reduction</b> <i>\$</i> <i>(i)=(e)-(h)</i>
(2)	70,000	1.96	137,268	12,195,499

1. Exhibit JTT-D, Schedule 4
2. DOC IR 42(a), Attachment
3. Exhibit SSD-D, Schedule 2

**Peaking Plant Dispatch - February 17**

<i>Line</i>	<b>Dispatch<sup>1</sup></b> <i>Dth</i> <i>(a)</i>	<b>Price<sup>2</sup></b> <i>\$/Dth</i> <i>(b)</i>	<b>Avoided Spot</b> <b>Purchases</b> \$ <i>(c)=(a)x(b)</i>
(1)	72,000	176.18	12,685,132

1. Exhibit JTT-D, Schedule 4
2. DOC IR 42(a), Attachment

**Curtailement - February 17**

<i>Line</i>	<b>Interruptible Load<sup>1</sup> <i>Dth</i> (a)</b>	<b>Curtailement Volume <i>Dth</i> (b)=0.5x(a)</b>	<b>Price<sup>2</sup> \$/<i>Dth</i> (c)</b>	<b>Avoided Spot Purchases \$ (d)=(b)x(c)</b>
(1)	82,637	41,319	176.18	7,279,592

1. Docket No. G-999/CI-21-135 OAG IR 118A

2. DOC IR 42(a), Attachment

**NNG Storage Incremental Utilization - February 17**

	<b>Load Forecast<sup>1</sup></b>	<b>Reserves</b>	<b>Net Load</b>	<b>Baseload<sup>2</sup></b>	<b>Storage<sup>3</sup></b>	<b>Spot Purchases</b>
	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>	<i>Dth</i>
<i>Line</i>	<i>(a)</i>	<i>(b)=2%<math>\times</math>(a)</i>	<i>(c)=(a)+(b)</i>	<i>(d)</i>	<i>(e)</i>	<i>(f)=(c)-(d)-(e)</i>
(1)	28,996	580	29,576	15,223	3,944	10,409

	<b>Actual Spot Purchases<sup>2</sup></b>	<b>Spot Purchase Reduction</b>	<b>Price<sup>4</sup></b>	<b>Avoided Spot Purchases</b>
	<i>Dth</i>	<i>Dth</i>	<i>\$/Dth</i>	<i>\$</i>
<i>Line</i>	<i>(g)</i>	<i>(h)=(g)-(f)</i>	<i>(i)</i>	<i>(j)=(h)<math>\times</math>(i)</i>
(2)	13,600	3,191	172.21	549,528

	<b>Actual Storage<sup>5</sup></b>	<b>Incremental Storage</b>	<b>Storage Rate<sup>5</sup></b>	<b>Storage Cost</b>	<b>Cost Reduction</b>
	<i>Dth</i>	<i>Dth</i>	<i>\$/Dth</i>	<i>\$</i>	<i>\$</i>
<i>Line</i>	<i>(k)</i>	<i>(l)=(e)-(k)</i>	<i>(m)</i>	<i>(n)=(l)<math>\times</math>(m)</i>	<i>(o)=(j)-(n)</i>
(3)	2,174	1,770	1.54	2,718	546,810

1. DOC IR 4, GP Attachment A
2. DOC IR 7, GP Attachment A2
3. SN-D 12:21
4. DOC IR 42, GP Attachment A
5. DOC IR 42, GP Attachment B

**Curtailment - February 17**

<i>Line</i>	<b>Interruptible Load<sup>1</sup> <i>Dth</i> (a)</b>	<b>Curtailment Volume <i>Dth</i> (b)=0.5x(a)</b>	<b>Price<sup>2</sup> \$/<i>Dth</i> (c)</b>	<b>Avoided Spot Purchases \$ (d)=(b)x(c)</b>
(1)	5,859	2,930	172.21	504,507

1. Docket No. G-999/CI-21-135 OAG IR 118

2. DOC IR 42, GP Attachment A

**PUBLIC DOCUMENT**  
**HIGHLY CONFIDENTIAL TRADE SECRET INFO EXCISED**

- Not Public Document – Not For Public Disclosure  
 Public Document – Not Public Data Has Been Excised  
 Public Document

Xcel Energy Information Request No. 5  
Docket No.: G002/CI-21-610, OAH 71-2500-37763  
Response To: Minnesota Department of Commerce  
Requestor: Nancy Campbell  
Date Received: November 2, 2021

---

Question:

Topic: Hedging

Reference(s): All Gas Utilities' Testimony

The definitions provided in DOC Information Request No. 4 apply to this IR.  
Request:

- (a) Please provide any natural gas hedging and risk management strategy, policy, and procedures documents relied on for the utility's hedging plan for 2020-21 inter heating season.
- (b) For long-term hedging and supply as well as specific requirements for each day of the Event, please provide gas supply reserve margin requirements on a quantified basis and related documentation.
- (c) Please describe how the utility determined monthly baseload volumes for the winter 2020-21 heating season and provide associated documentation
- (d) Please provide a narrative summary of gas system locational requirements, and how these locational requirements impact hedging and supply requirements.
- (e) Please provide relevant regulatory filings associated with winter 2020-21 season hedging, planning, or arrangements (AAA, CD, etc.). Please include filings with Minnesota and federal agencies, commissions, and boards as well as non-governmental standard setting and reporting organizations.
- (f) Please provide the percentage breakdown of the utility's fixed price vs indexed for daily spot purchases since October 1, 2018 on a daily basis.

**PUBLIC DOCUMENT**  
**HIGHLY CONFIDENTIAL TRADE SECRET INFO EXCISED**

- (g) Please provide details surrounding any improvements or reforms taken in response to the 2017/2018 New Year's Event and/or the 2019 Polar Vortex Event.

Response:

- (a) Please see the Company's filed hedge petition Docket No. G002/M-19-703 (provided as Attachment A to this response); see also the Company's Gas Price Volatility Mitigation Plan, which was filed as Attachment A, Schedule 5 and the Company's Analysis of Various Hedge Ratios for NSPM LDC, which was filed as Attachment G, Schedule 4, to the Company's 2020-2021 Gas AAA, Docket No. G999/AA-21-114 (provided as Attachment B to this response). Please also see the Company's Contract Demand Entitlements filing and supplement, Docket No. G002/M-20-633, which were provided as Attachments A and B to DOC Information Request No. 4.
- (b) There is no reserve margin for the hedging program as the program does not attempt to hedge 100% of gas supply needs (see the response to DOC Information Request No. 5 part (a). Please see Witness Derryberry's testimony, Schedule 2, Table 3 on page 26. The difference between Total Planned Supplies and the Forecasted Load is the gas supply reserve margin.
- (c) Please see Witness Derryberry's testimony at page 10, line 22 through page 11, line 19.
- (d) Please see Witness Derryberry's testimony at page 3, line 17 through page 5, line 10.

Each transportation agreement with an interstate pipeline identifies "receipt point(s)" where the Company provides gas to the pipeline, and delivery points where we receive the gas. As a result, the Company purchases gas at market hubs where it has transportation receipt points, in order to reliably deliver gas to our customers. Without firm transportation rights, the company would have to transport purchased gas on an interruptible basis, which is not guaranteed, and may not be available on the coldest days.

- (e) Attachment A is the Company's most recent request for a rule variance to allow hedging and Attachment B is the Company's AAA for the 2020-2021 heating season. The Contract Demand Entitlements filing was previously provided in response to DOC Information Request No. 4.

**PUBLIC DOCUMENT**  
**HIGHLY CONFIDENTIAL TRADE SECRET INFO EXCISED**

- (f) Please see the workpapers of Levine previously provided in response to CUB Information Request No. 2, which provides gas supply deals by contract made from 2018 through February 2022.
- (g) Please see Witness Derryberry's testimony at page 21, lines 1 through 13. In addition, after the 2019 Polar vortex, the Company increased its curtailment penalties as described in Mr. Derryberry's Schedule 4, page 4.

Please note that Attachments A and B to this response contain Protected Data. Information on gas supplies is designated as Protected Data. Pursuant to Minn. Stat. §13.37, trade secret information is defined in part as government data, including a compilation that: 1) was supplied by the affected individual or organization, 2) is subject to efforts by the individual or organization that are reasonable under the circumstances to maintain secrecy, and 3) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use. The information in this filing meets this definition for the following reasons:

1. Xcel Energy, the affected organization, is supplying the information.
2. Xcel Energy and Xcel Energy Services Inc. (XES), the service company for the Xcel Energy Inc. utility operating companies, make extensive efforts to maintain the secrecy of this information. This information is not available outside the Company except to other parties involved in contracts and to regulatory agencies under the confidentiality provisions of state or federal law, as evidenced by the non-disclosure provisions in the contracts.
3. The information designated as Protected Data derives independent economic value, actual or potential, from not being generally known or being readily ascertainable. If suppliers know the timing and volumes at which the Company will be entering into transactions, the market may use this information in a negative way to increase costs to the ratepayers.

---

Preparer:	Justin Holstein	Craig Rozman
Title:	Manager	Manager
Department:	Gas Resource Planning	Gas Supply
Telephone:	303-571-2750	303-571-2844
Date:	November 10, 2021	



**PUBLIC DOCUMENT –TRADE SECRET AND  
HIGHLY CONFIDENTIAL TRADE SECRET DATA HAS BEEN EXCISED**



**Minnesota Department of Commerce  
85 7th Place East | Suite 280 | St. Paul, MN 55101  
Information Request**

**Docket Nos:** OAH 71-2500-37763; MPUC M-21-138; M-21-235; CI-21-610; CI-21-611 Public

**Requested From:** All Gas Utilities

**Date of Request:** 11/02/2021

**Type of Inquiry:** General

**Response Due:** 11/10/2021

**SEND RESPONSE VIA EMAIL TO:** Utility.Discovery@state.mn.us; commerce.attorneys@ag.state.mn.us; Nancy.Campbell@state.mn.us; Katherine.Hinderlie@ag.state.mn.us; Richard.Dornfeld@ag.state.mn.us

**Assigned Analyst(s):** Nancy Campbell

**Email Address(es):** Contact through counsel at katherine.hinderlie@ag.state.mn.us

**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

---

<b>Request Number:</b>	<b>5</b>
<b>Topic:</b>	Hedging
<b>Reference(s):</b>	All Gas Utilities' Testimony

---

The definitions provided in DOC Information Request No. 4 apply to this IR.

**Request:**

- (a) Please provide any natural gas hedging and risk management strategy, policy, and procedures documents relied on for the utility's hedging plan for 2020-21 winter heating season.
- (b) For long-term hedging and supply as well as specific requirements for each day of the Event, please provide gas supply reserve margin requirements on a quantified basis and related documentation.
- (c) Please describe how the utility determined monthly baseload volumes for the winter 2020-21 heating season and provide associated documentation
- (d) Please provide a narrative summary of gas system locational requirements, and how these locational requirements impact hedging and supply requirements.
- (e) Please provide relevant regulatory filings associated with winter 2020-21 season hedging, planning, or arrangements (AAA, CD, etc.). Please include filings with Minnesota and federal agencies, commissions, and boards as well as non-governmental standard setting and reporting organizations.
- (f) Please provide the percentage breakdown of the utility's fixed price vs indexed for daily spot purchases since October 1, 2018 on a daily basis.

---

To be completed by responder

**Response Date:** November 15, 2021  
**Response by:** Sarah Mead  
**Email Address:** Sarah.Mead@wecenergygroup.com  
**Phone Number:** 920-433-7647

**PUBLIC DOCUMENT –TRADE SECRET AND  
HIGHLY CONFIDENTIAL TRADE SECRET DATA HAS BEEN EXCISED**



**Minnesota Department of Commerce  
85 7th Place East | Suite 280 | St. Paul, MN 55101  
Information Request**

**Docket Nos:** OAH 71-2500-37763; MPUC M-21-138; M-21-235; CI-21-610; CI-21-611 Public

**Requested From:** All Gas Utilities

**Date of Request:** 11/02/2021

**Type of Inquiry:** General

**Response Due:** 11/10/2021

**SEND RESPONSE VIA EMAIL TO:** Utility.Discovery@state.mn.us; commerce.attorneys@ag.state.mn.us; Nancy.Campbell@state.mn.us; Katherine.Hinderlie@ag.state.mn.us; Richard.Dornfeld@ag.state.mn.us

**Assigned Analyst(s):** Nancy Campbell

**Email Address(es):** Contact through counsel at katherine.hinderlie@ag.state.mn.us

**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

- 
- (g) Please provide details surrounding any improvements or reforms taken in response to the 2017/2018 New Year's Event and/or the 2019 Polar Vortex Event.

**MERC Response:**

- a. Please see Docket No. G999/AA-21-114 for MERC-NNG and MERC-Consolidated. Per Minnesota Rule 7825.2800, each public utility is to file annually the procurement policies for selecting sources of fuel and energy purchased, dispatching policies, if applicable, and a summary of actions taken to minimize costs, including conservation actions for gas utilities. Additionally, per the Commission's Order in Docket No. G999/AA-17-493, each utility that hedges (including physical and financial) shall provide a post-mortem analysis in subsequent AAA filings. The referenced docket above contain MERC's Gas Procurement Policies, inclusive of information regarding hedging, as well as the hedging post-mortem analysis, for the 2020-2021 winter heating season. Also included is IR5a – Commodity Strategy for Natural Gas-MERC.

“21-611 MERC Response to Department IR No. 005a – Commodity Strategy for Natural Gas-MERC” has been marked not public in its entirety, as this document contains trade secret information that is not generally known to and not readily ascertainable by vendors or competitors of MERC, who could obtain economic value from its disclosure. MERC maintains this information as secret. Accordingly, this information qualifies as “Trade Secret Data” pursuant to Minnesota Statutes section 13.37, subdivision 1(b).

---

To be completed by responder

**Response Date:** November 15, 2021  
**Response by:** Sarah Mead  
**Email Address:** Sarah.Mead@wecenergygroup.com  
**Phone Number:** 920-433-7647

**PUBLIC DOCUMENT –TRADE SECRET AND  
HIGHLY CONFIDENTIAL TRADE SECRET DATA HAS BEEN EXCISED**



**Minnesota Department of Commerce**  
**85 7th Place East | Suite 280 | St. Paul, MN 55101**  
**Information Request**

**Docket Nos:** OAH 71-2500-37763; MPUC M-21-138; M-21-235; CI-21-610; CI-21-611 Public

**Requested From:** All Gas Utilities

**Date of Request:** 11/02/2021

**Type of Inquiry:** General

**Response Due:** 11/10/2021

**SEND RESPONSE VIA EMAIL TO:** [Utility.Discovery@state.mn.us](mailto:Utility.Discovery@state.mn.us); [commerce.attorneys@ag.state.mn.us](mailto:commerce.attorneys@ag.state.mn.us);  
[Nancy.Campbell@state.mn.us](mailto:Nancy.Campbell@state.mn.us); [Katherine.Hinderlie@ag.state.mn.us](mailto:Katherine.Hinderlie@ag.state.mn.us); [Richard.Dornfeld@ag.state.mn.us](mailto:Richard.Dornfeld@ag.state.mn.us)

**Assigned Analyst(s):** Nancy Campbell

**Email Address(es):** Contact through counsel at [katherine.hinderlie@ag.state.mn.us](mailto:katherine.hinderlie@ag.state.mn.us)

**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

- 
- b. The reserve margin calculation is part of the annual Demand Entitlement filing (Please see Docket Nos. G011/M-20-636 and G011/M-20-637; Attachment 3). This calculation is based on the capacity entitlements and the forecasted design day for the NNG-PGA region and the Consolidated-PGA region. Hedging volumes are based on the monthly forecasted sales volumes and not impacted by the design day forecast or related reserve margin. The reserve margin entitlements, if utilized, would use supply procured daily as opposed to monthly term baseload supply.

The reserve margin, as filed in the 2020-2021 Demand Entitlement filing, for NNG was 11.95%. As discussed in MERC's August 31, 2017, Compliance Filing submitted in Docket No. G011/M-15-895, "[i]n order to reduce the overall reserve margin each year and mitigate capacity costs for MERC's sales customers, MERC will, at a minimum, actively market its available capacity in excess of a five percent reserve margin on the NNG system." For the November 2020 – March 2021 period, MERC released capacity, as described in the Company's February 1, 2021 Compliance Filing in Docket No. G011/M-15-895, which reduced the heating season reserve margin to 5%. The reserve margin for the Consolidated region for 2020-21 was 2.78%.

- c. MERC annually forecasts system demand for both the NNG and Consolidated systems. To determine the level of baseload purchases for each month over the winter season, MERC takes into account considerations such as storage withdrawal/injection rights, historical seasonal

---

To be completed by responder

**Response Date:** November 15, 2021

**Response by:** Sarah Mead

**Email Address:** [Sarah.Mead@wecenergygroup.com](mailto:Sarah.Mead@wecenergygroup.com)

**Phone Number:** 920-433-7647

**PUBLIC DOCUMENT –TRADE SECRET AND  
HIGHLY CONFIDENTIAL TRADE SECRET DATA HAS BEEN EXCISED**



**Minnesota Department of Commerce  
85 7th Place East | Suite 280 | St. Paul, MN 55101  
Information Request**

**Docket Nos:** OAH 71-2500-37763; MPUC M-21-138; M-21-235; CI-21-610; CI-21-611 Public

**Requested From:** All Gas Utilities

**Date of Request:** 11/02/2021

**Type of Inquiry:** General

**Response Due:** 11/10/2021

**SEND RESPONSE VIA EMAIL TO:** [Utility.Discovery@state.mn.us](mailto:Utility.Discovery@state.mn.us); [commerce.attorneys@ag.state.mn.us](mailto:commerce.attorneys@ag.state.mn.us); [Nancy.Campbell@state.mn.us](mailto:Nancy.Campbell@state.mn.us); [Katherine.Hinderlie@ag.state.mn.us](mailto:Katherine.Hinderlie@ag.state.mn.us); [Richard.Dornfeld@ag.state.mn.us](mailto:Richard.Dornfeld@ag.state.mn.us)

**Assigned Analyst(s):** Nancy Campbell

**Email Address(es):** Contact through counsel at [katherine.hinderlie@ag.state.mn.us](mailto:katherine.hinderlie@ag.state.mn.us)

**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

---

weather variations, market factors, and daily operational flexibility, among other variables. MERC generally will maximize the amount of baseload purchases while ensuring sufficient operational flexibility to balance load variability through the winter heating season. In Minnesota, daily temperatures over a given winter month can vary significantly, and it is necessary to have more flexible supply to balance those variations.

See DOC IR 6.a.-MERC Winter Supply 2020-21 to MERC's response to Department Information Request No. 6 for details of the 2020-21 monthly baseload purchases that were active for the February event.

- d. MERC is divided into two distinct service areas: 1) MERC-Consolidated, which is served by Centra Pipeline ("Centra"), Viking Gas Transmission Pipeline ("VGT"), and Great Lakes Gas Transmission Pipeline ("GLGT") (collectively, the Consolidated" pipelines); and 2) MERC-NNG, which is served by the Northern Natural Gas Pipeline ("NNG"). In most cases, MERC's customers are served solely by a specific pipeline, with very few exceptions. Because these PGAs are geographically separate, they do not share pipeline capacity, storage, or natural gas supplies. As a result, a separate forecast and resultant total supply requirement is required for each region of MERC.

For purposes of hedging, the aggregate of each region's (Centra, Great Lakes, Viking, and Northern Natural Gas) monthly sales forecast is used to determine the expected sales quantities by month. This provides for a more efficient hedging process administratively as well as allowing a larger distribution of hedges for all regions. Given the small volumes for some of the regions, hedging

---

To be completed by responder

**Response Date:** November 15, 2021

**Response by:** Sarah Mead

**Email Address:** [Sarah.Mead@wecenergygroup.com](mailto:Sarah.Mead@wecenergygroup.com)

**Phone Number:** 920-433-7647

**PUBLIC DOCUMENT –TRADE SECRET AND  
HIGHLY CONFIDENTIAL TRADE SECRET DATA HAS BEEN EXCISED**



**Minnesota Department of Commerce  
85 7th Place East | Suite 280 | St. Paul, MN 55101  
Information Request**

**Docket Nos:** OAH 71-2500-37763; MPUC M-21-138; M-21-235; CI-21-610; CI-21-611 Public

**Requested From:** All Gas Utilities

**Date of Request:** 11/02/2021

**Type of Inquiry:** General

**Response Due:** 11/10/2021

**SEND RESPONSE VIA EMAIL TO:** [Utility.Discovery@state.mn.us](mailto:Utility.Discovery@state.mn.us); [commerce.attorneys@ag.state.mn.us](mailto:commerce.attorneys@ag.state.mn.us);  
[Nancy.Campbell@state.mn.us](mailto:Nancy.Campbell@state.mn.us); [Katherine.Hinderlie@ag.state.mn.us](mailto:Katherine.Hinderlie@ag.state.mn.us); [Richard.Dornfeld@ag.state.mn.us](mailto:Richard.Dornfeld@ag.state.mn.us)

**Assigned Analyst(s):** Nancy Campbell

**Email Address(es):** Contact through counsel at [katherine.hinderlie@ag.state.mn.us](mailto:katherine.hinderlie@ag.state.mn.us)

**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

---

them separately may not allow those to utilize a dollar cost averaging approach to hedge implementation. The aggregated costs of the hedging activity is then allocated based on the regions sales forecast.

e. Please see the following dockets:

- G999/AA-21-114, MERC's NNG and Consolidated Annual Automatic Adjustment ("AAA") Reports.
- G011/AA-21-624, MERC Consolidated Annual True-up Report.
- G011/AA-21-625, MERC NNG Annual True-up Report.
- G011/M-20-636 and G011/M-20-637, MERC's Petition Petitions for Approval of a Change in Demand Entitlement
- G011/M-20-833, MERC's request for Extension of Rule Variances to Recover the Costs of Financial Instruments Through the Purchased Gas Adjustment

f. MERC will provide available information responsive to this request as a supplement to this response.

g. MERC altered the gas procurement strategy from winter 2017/2018 to 2018/2019 by purchasing additional NYMEX priced baseload gas at NNG Ventura and also increased the volume of first of the month baseload purchases on NNG effective Winter 2018/2019. Please see Docket 21-135 MERC Response to OAG IR No. 111-attachment for details.

See Docket No. E,G999/CI-19-160 for a discussion of improvements and tariff modifications implemented by MERC in response to the 2019 Polar Vortex Event. Tariff modifications implemented in that docket

---

To be completed by responder

**Response Date:** November 15, 2021

**Response by:** Sarah Mead

**Email Address:** [Sarah.Mead@wecenergygroup.com](mailto:Sarah.Mead@wecenergygroup.com)

**Phone Number:** 920-433-7647

**PUBLIC DOCUMENT –TRADE SECRET AND  
HIGHLY CONFIDENTIAL TRADE SECRET DATA HAS BEEN EXCISED**



**Minnesota Department of Commerce  
85 7th Place East | Suite 280 | St. Paul, MN 55101  
Information Request**

**Docket Nos:** OAH 71-2500-37763; MPUC M-21-138; M-21-235; CI-21-610; CI-21-611 Public

**Requested From:** All Gas Utilities

**Date of Request:** 11/02/2021

**Type of Inquiry:** General

**Response Due:** 11/10/2021

**SEND RESPONSE VIA EMAIL TO:** [Utility.Discovery@state.mn.us](mailto:Utility.Discovery@state.mn.us); [commerce.attorneys@ag.state.mn.us](mailto:commerce.attorneys@ag.state.mn.us);  
[Nancy.Campbell@state.mn.us](mailto:Nancy.Campbell@state.mn.us); [Katherine.Hinderlie@ag.state.mn.us](mailto:Katherine.Hinderlie@ag.state.mn.us); [Richard.Dornfeld@ag.state.mn.us](mailto:Richard.Dornfeld@ag.state.mn.us)

**Assigned Analyst(s):** Nancy Campbell

**Email Address(es):** Contact through counsel at [katherine.hinderlie@ag.state.mn.us](mailto:katherine.hinderlie@ag.state.mn.us)

**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

---

were filed on November 13, 2019 and MERC submitted a compliance filing on November 1, 2019 reporting on the Company's progress in implementing process improvements.

**MERC SUPPLEMENTAL RESPONSE (NOVEMBER 15, 2021)**

- f. See attached Docket 21-611 MERC Response to Department IR No. 005\_SUPPLEMENTAL – Attachment.xls for the percentage breakdown of MERC's fixed price vs. indexed for daily spot purchases since November 2017. Since MERC's daily purchases are mostly index priced (97% since November 2017) versus fixed priced purchases (3% since November 2017), included on the attachment are all the days in which fixed price purchases occurred and the relevant breakdown for those instances. All other days that had daily purchases since November 2017 were 100% index priced.

In accordance with the October 8, 2021 Protective Order and October 26, 2021 Amended Protective Order for Highly-Confidential Trade Secret Data, the Highly Confidential Trade Secret version of Docket 21-611 MERC Response to Department IR No. 005\_SUPPLEMENTAL – Attachment.xls contains highly confidential trade secret information as defined in the Amended Protective Order for Highly Confidential Trade Secret Data. MERC's competitors and suppliers would gain a competitive advantage if this information were publicly available. As a result of public availability, MERC and its customers would suffer in potential competitive disadvantage. This information is not known or readily ascertainable by others who could obtain financial advantage from its use.

---

To be completed by responder

**Response Date:** November 15, 2021

**Response by:** Sarah Mead

**Email Address:** [Sarah.Mead@wecenergygroup.com](mailto:Sarah.Mead@wecenergygroup.com)

**Phone Number:** 920-433-7647

**State of Minnesota**  
**Minnesota Department of Commerce**

**Utility Information Request**

Docket Number: G-008/M-21-138 - Cost Impacts/Extreme Weather

Date of Request: 11/2/2021

Requested From: CenterPoint Energy Minnesota Gas

Response Due: 11/10/2021

Analyst Requesting Information: Nancy Campbell

Type of Inquiry: Other

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

Request No.	
DOC 05 P	<p data-bbox="384 779 951 857">Topic: Hedging Reference(s): All Gas Utilities' Testimony</p> <p data-bbox="384 898 1394 965">The definitions provided in DOC Information Request No. 4 apply to this IR.</p> <ul data-bbox="384 999 1394 1805" style="list-style-type: none"><li data-bbox="384 999 1394 1111">a. Please provide any natural gas hedging and risk management strategy, policy, and procedures documents relied on for the utility's hedging plan for 2020-21 winter heating season.</li><li data-bbox="384 1155 1394 1267">b. For long-term hedging and supply as well as specific requirements for each day of the Event, please provide gas supply reserve margin requirements on a quantified basis and related documentation.</li><li data-bbox="384 1312 1394 1424">c. Please describe how the utility determined monthly baseload volumes for the winter 2020-21 heating season and provide associated documentation</li><li data-bbox="384 1469 1394 1581">d. Please provide a narrative summary of gas system locational requirements, and how these locational requirements impact hedging and supply requirements.</li><li data-bbox="384 1626 1394 1805">e. Please provide relevant regulatory filings associated with winter 2020-21 season hedging, planning, or arrangements (AAA, CD, etc.). Please include filings with Minnesota and federal agencies, commissions, and boards as well as non-governmental standard setting and reporting organizations.</li></ul>

Response By: Paula Grizzle  
Title: Director, Gas Supply Portfolio Optimization  
Department: Gas Purchasing  
Telephone: 713-207-3389

- f. Please provide the percentage breakdown of the utility's fixed price vs indexed for daily spot purchases since October 1, 2018 on a daily basis.
- g. Please provide details surrounding any improvements or reforms taken in response to the 2017/2018 New Year's Event and/or the 2019 Polar Vortex Event.

**Response:**

a. See Exhibit \_\_\_ (PJG-D), Schedule 2, CenterPoint Energy's Minnesota 2020 Gas Procurement Plan and supporting documentation provided in Docket No. G008/M-19-699 (Jun. 19, 2020). This plan includes significant detail regarding planning objectives, procurement strategy, results from the prior plan year, contracting parameters, supply strategy, market outlooks, load forecasts, design day, and capacity services, dispatch modelling, supply resources, price volatility management, hedge implementation and hedging products, resource mix modeling, hedge product selection modeling, competitive bidding processes, summer and winter procurement strategies, and long-term planning.

To determine the exact timing of hedge purchases, CenterPoint relies on advice from Risked Revenue Energy Associates and its proprietary hedging methodology "Trend, Location, and Control" or "TLC" model. TLC provides an objective and quantifiable snapshot of energy market prices that factor into hedging purchase decision. See 200518 Opinion letter.pdf, 200630 Opinion letter.pdf, 200723 Opinion letter.pdf, 200819 Opinion letter.pdf, and 200916 Opinion letter.pdf for the opinions provided by Risked Revenue for CenterPoint Energy's 2020-2021 hedging. See also attached Risk Policy.pdf.

b. CenterPoint Energy's capacity reserve margin calculation is related to the Company's capacity demand entitlements, as reflected in the Company's annual demand entitlement filings. Information on the design day determination and associated reserve margin for the 2020-2021 heating season was provided in the Company's Request for Change in Demand Units filed July 1, 2020, in Docket No. G002/M-20-565. As described in the Direct Testimony of Ms. Paula Grizzle, baseload gas supply, including hedged baseload supplies, is determined based on the Company's monthly and daily requirements forecasts. Baseload and hedged baseload supplies are not determined based on the Company's design day forecast or capacity reserve margin.

c. Please see discussion in the Direct Testimony of Paula Grizzle,

Response By: Paula Grizzle  
Title: Director, Gas Supply Portfolio Optimization  
Department: Gas Purchasing  
Telephone: 713-207-3389



Exhibit \_\_\_ (PJG-D), pages 6-7, 38-40, and Schedule 2, the Company's 2020-2021 Gas Procurement Plan, pages 9-10. Daily baseload volumes for each month are shown in Appendix D to the 2020-2021 Gas Procurement Plan. The monthly baseload volumes are based on the warmest forecast day within each winter month.

d. The locations at which a shipper has firm rights to put gas into a pipeline (i.e., receipt points) and take gas out of a pipeline (i.e., delivery points) are specified in its pipeline transportation contracts. As a result, a gas utility generally buys gas at locations that correspond to receipt points on its pipeline transportation contracts that have gas supplies available and uses its pipeline capacity to deliver the gas to its distribution system. Physical gas supply hedge contracts will also be purchased at some combination of these same receipt point locations since these hedged supplies will ultimately be delivered to the gas utility's distribution system. As specified in CenterPoint Energy's Minnesota 2020 Gas Procurement Plan (provided as PJG-D, Schedule 2) at pages 27-28, CenterPoint has firm receipt point capacity at 11 locations on Northern Natural and at one point on Viking.

See CenterPoint Energy's transportation contracts provided in response to CUB Information Request No. 2 for details regarding the delivery points and receipt points for each of the Company's interstate pipeline transportation contracts.

See Exhibit \_\_\_ (PJG-D), Schedule 2, to the Direct Testimony of Ms. Paula Grizzle, at 29-31.

CenterPoint Energy holds long term contractual rights to firm transportation on two interstate pipelines that are used to transport gas commodity purchases to CenterPoint Energy town border stations. Maximum daily firm delivery capacity rights held on Northern, which connects directly to CenterPoint Energy, total 1,230,290 Dth/day in the winter months of November through March and 708,174 Dth/day in the summer months of April through October. This capacity is held at various receipt points into Northern which allows for flexibility in purchasing gas when loads are below entitlement levels; however, full entitlements at all points would be used on colder days of the winter and summer (attachment DOC 5 - NNG 20-21 Capacity.xlsx provides a summary of capacity by receipt point on Northern's system). The Northern receipt points where CenterPoint Energy holds a majority of its capacity are Ventura (interconnect with Northern Border Pipeline near Ventura, Iowa), and Demarcation (near Clifton, Kansas) which is the transfer point for gas coming north from Northern's producing area to serve Northern's market area. Demarcation

also receives gas coming out of the Rocky Mountain region via Trailblazer Pipeline, with whom CenterPoint contracts with for upstream capacity, and Rockies Express Pipeline. The gas supply points of Ventura and Demarcation are more liquid than others on Northern and therefore are the key points where CenterPoint Energy incorporates flexibility into its gas purchasing

Maximum daily firm delivery capacity rights held on Viking, which connects to CenterPoint Energy through Minnesota Intrastate Pipeline Company (“MIPC”), total 76,809 Dth in both the winter and summer months. Gas to be transported on Viking must be purchased at Emerson, Manitoba (Canadian border), and moved to MIPC at Cambridge, Minnesota. CenterPoint Energy holds firm capacity rights on MIPC (an affiliate pipeline) of 100,000 Dth per day, which allows for transportation of Viking gas from Cambridge to CenterPoint Energy’s system.

CenterPoint Energy also holds firm upstream capacity rights on NGPL, a pipeline not directly tied to CenterPoint Energy’s system. This capacity is used for moving purchased gas supplies to storage pools for injection and for moving withdrawn storage gas to points of interconnect with Northern for ultimate delivery to CenterPoint Energy’s system. At times when this capacity is not needed for moving storage gas, it can be used to buy lower priced gas on NGPL and move to Northern for ultimate delivery to CenterPoint Energy’s system.

e. The relevant filings are listed below:

- 1 Annual Automatic Adjustment Report – CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas, Docket No. G999/AA-21-114 (Sept. 1, 2021) (2020-2021 AAA Report).
- 1 CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas Annual True-Up Report, Docket No. G008/AA-21-666 (Sept.1, 2021) (2020-2021 Annual True-Up Report).
- 1 CenterPoint Energy’s Request for Change in Demand Units, Docket No. G008/M-20-565 (Jul. 1, 2020) (2020-2021 Demand Entitlement).
- 1 CenterPoint Energy’s monthly Purchased Gas Adjustment Reports, Docket Nos. G008/AA-20-805 (November 2020), G008/AA-20-848 (December 2020), G008/AA-20-906 (January 2021), G008/AA-21-95 (February 2021), G008/AA-21-145 (March 2021).
- 1 *In the Matter of the Petition of CenterPoint Energy Resources Corp. for Approval of an Extension of Rule Variances to Minnesota Rules to Recover the Costs of Certain Natural Gas Financial Instruments Through the Purchased Gas Adjustment*, Docket No. G008/M-19-699, Minnesota 2020 Gas Procurement Plan (Jun. 19, 2020); Minnesota

Response By: Paula Grizzle  
Title: Director, Gas Supply Portfolio Optimization  
Department: Gas Purchasing  
Telephone: 713-207-3389

2021 Gas Procurement Plan (Sept. 30, 2021).

f. See Attachment DOC 5(f) Spot Deal Daily Pricing Percents for a daily count of fixed price and index spot purchases from 10/1/18 to 10/31/21. Days with fixed price spot purchases are highlighted for easy reference.

As discussed in the Direct Testimony of Mr. Jeffrey Toys at pages 9-10, when the Company purchases daily spot gas, it generally purchases Gas Daily Daily index-priced gas. Index-priced transactions reflect the forces of supply and demand in the market as they are an average of the reported prices at which transactions were executed. As a result, parties to index-priced transactions bear no price risk because the price reflects the average market price. Second, as such products trade in the morning, Gas Supply is able to secure the spot market supply it needs earlier in the day, avoiding the need to purchase gas for the next day as the markets are closing, and facing the risk of diminished supplies and higher prices. Fixed-price contracts are far more speculative than index-priced contracts as the price inherently only reflects one transaction.

g. See Docket No. E,G999/CI-19-160 for changes, including tariff modifications, implemented by CenterPoint Energy in response to the 2019 Polar Vortex. The Company's November 1, 2019, Compliance Filing summarizes process improvements and reinforcement projects undertaken and the Company's March 20, 2020, Compliance Filing provides redlined tariff changes implemented. In its November ,6, 2019 Order, the Commission:

- 1 approved CenterPoint Energy's proposed changes to its interruptible tariff, including clarifying language and a penalty increase for non-compliance with curtailment orders;
- 1 required additional reporting in the annual September 1 AAA reports relative to customer curtailments; and
- 1 required a compliance filing on reinforcement projects and progress in implementing various process improvements to address severe weather events.

The Company's November 1, 2020, Compliance Filing reported on completion of two reinforcement projects and CenterPoint Energy's progress in implementing process improvements relative to interruptible customers, including:

- 1 contact information;
- 1 seasonal energy management seminars; and
- 1 resolution of curtailment non-compliance.

Response By: Paula Grizzle  
Title: Director, Gas Supply Portfolio Optimization  
Department: Gas Purchasing  
Telephone: 713-207-3389

As a result of the 2019 polar vortex, CenterPoint Energy implemented a certification form for interruptible customers to ensure they have a functioning backup system, and the ability to discontinue use of all natural gas during the entire period of any curtailment.

The Company continuously reviews gas prices, however after the 2017/18 New Year's Event or the 2019 Polar Vortex Event, the Company still believed that the probability of gas price spikes was low and that the spikes experienced were anomalies. Therefore, the Company did not make any major changes to its Gas Purchase Plan in response to those events.

Response By: Paula Grizzle  
Title: Director, Gas Supply Portfolio Optimization  
Department: Gas Purchasing  
Telephone: 713-207-3389



Minnesota Department of Commerce  
85 7th Place East | Suite 280 | St. Paul, MN 55101  
Information Request

**Docket Nos:** OAH 71-2500-37763; MPUC M-21-138; M-21-235; CI-21-610; CI-21-611 Nonpublic Public  
**Requested From:** All Gas Utilities Date of Request: 11/02/2021  
**Type of Inquiry:** General Response Due: 11/10/2021

**SEND RESPONSE VIA EMAIL TO:** Utility.Discovery@state.mn.us; commerce.attorneys@ag.state.mn.us;  
Nancy.Campbell@state.mn.us; Katherine.Hinderlie@ag.state.mn.us; Richard.Dornfeld@ag.state.mn.us  
**Assigned Analyst(s):** Nancy Campbell  
**Email Address(es):** Contact through counsel at katherine.hinderlie@ag.state.mn.us  
**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

---

<b>Request Number:</b>	5
Topic:	Hedging
Reference(s):	All Gas Utilities' Testimony

---

The definitions provided in DOC Information Request No. 4 apply to this IR.

**Request:**

- (a) Please provide any natural gas hedging and risk management strategy, policy, and procedures documents relied on for the utility's hedging plan for 2020-21 winter heating season.
- (b) For long-term hedging and supply as well as specific requirements for each day of the Event, please provide gas supply reserve margin requirements on a quantified basis and related documentation.
- (c) Please describe how the utility determined monthly baseload volumes for the winter 2020-21 heating season and provide associated documentation
- (d) Please provide a narrative summary of gas system locational requirements, and how these locational requirements impact hedging and supply requirements.
- (e) Please provide relevant regulatory filings associated with winter 2020-21 season hedging, planning, or arrangements (AAA, CD, etc.). Please include filings with Minnesota and federal agencies, commissions, and boards as well as non-governmental standard setting and reporting organizations.
- (f) Please provide the percentage breakdown of the utility's fixed price vs indexed for daily spot purchases since October 1, 2018 on a daily basis.

---

To be completed by responder

Response Date: 11/10/2021  
Response by: Tara R. Vesey  
Email Address: [tara.vesey@mdu.com](mailto:tara.vesey@mdu.com)  
Phone Number: 701-222-7955



Minnesota Department of Commerce  
85 7th Place East | Suite 280 | St. Paul, MN 55101  
Information Request

**Docket Nos:** OAH 71-2500-37763; MPUC M-21-138; M-21-235; CI-21-610; CI-21-611  Nonpublic  Public  
**Requested From:** All Gas Utilities Date of Request: 11/02/2021  
**Type of Inquiry:** General Response Due: 11/10/2021

**SEND RESPONSE VIA EMAIL TO:** Utility.Discovery@state.mn.us; commerce.attorneys@ag.state.mn.us;  
Nancy.Campbell@state.mn.us; Katherine.Hinderlie@ag.state.mn.us; Richard.Dornfeld@ag.state.mn.us  
**Assigned Analyst(s):** Nancy Campbell  
**Email Address(es):** Contact through counsel at katherine.hinderlie@ag.state.mn.us  
**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

- 
- (g) Please provide details surrounding any improvements or reforms taken in response to the 2017/2018 New Year's Event and/or the 2019 Polar Vortex Event.

**Response:**

- (a) Great Plains does not have any financial hedges.

From a risk management perspective, Great Plains has a Gas Supply Oversight Committee, which meets seasonally, and includes company executives that are responsible for examining supply risks associated with the upcoming season. This committee is provided a proposed portfolio against which strategic discussions are held and plans are solidified.

In October 2020, such a meeting was held to finalize Great Plains' portfolio. In that meeting, the established targets were restated along with associated, projected statistics relating to costs and risks. The previously submitted Request for Proposal (RFP) along with supplier responses were presented, including discussions on the value of storage hedges and all fixed prices hedging opportunities.

The presentation material for this meeting is included as Response DOC No. 5 Attachment A.

- (b) Great Plains ensures that it has access to firm supply to serve 100% firm demand on a design day. Firm supply consists of Base Supply, Storage Supply, and Swing Supply. As discussed in Response 5(c), Great Plains contracts Base Supply such that Base Supply plus Storage Supply equals approximately 75% of normal demand. Necessary Swing Supply is calculated as Firm Design Day Supply requirement minus Base Supply minus Storage Supply. Swing Supply guarantees supply will be available for purchase on a design day.
- (c) Great Plains has determined that the appropriate level of monthly base supply, including storage, is approximately 75% of normal demand. The target is used because Great Plains does not commit to purchasing

---

To be completed by responder

Response Date: 11/10/2021  
Response by: Tara R. Vesey  
Email Address: [tara.vesey@mdu.com](mailto:tara.vesey@mdu.com)  
Phone Number: 701-222-7955



quantities of natural gas greater than the quantity of natural gas it knows it will sell during a given month.

Historical temperatures have shown that 75% represents fair and reasonable approximation of the minimum number of heating degrees in a particular month compared to the average number of heating degrees in a particular month. The tables shown in Figure 5(c) below present the average sum of heating degrees for each month of the heating season using data from 1981 through 2020. It also presents the monthly minimum sum of heating degrees followed by the calculation of minimum as a percentage of average.

**Figure 5(c)**

**City: Crookston**

Month	Average HD <sub>60</sub>	Minimum HD <sub>60</sub>	Minimum % of Average
November	988	610	62%
December	1,464	1,157	79%
January	1,625	1,146	71%
February	1,368	951	70%
March	1,058	651	62%

**City: Fergus Falls**

Month	Average HD <sub>60</sub>	Minimum HD <sub>60</sub>	Minimum % of Average
November	905	539	60%
December	1,370	1,074	78%
January	1,525	1,055	69%
February	1,260	878	70%
March	965	571	59%

**City: Marshall**

Month	Average HD <sub>60</sub>	Minimum HD <sub>60</sub>	Minimum % of Average
November	831	552	66%
December	1,266	978	77%
January	1,372	981	72%
February	1,142	772	68%
March	881	430	49%

- (d) This response interprets “Gas System Locational Requirements” as constraints (maximum and minimum) quantities that may be purchased from each receipt location. The maximum quantity purchased at a particular receipt location should be less than or equal the sum of contracted transportation capacity pathed from that receipt location. The maximum quantity purchased at a particular receipt location should also be less than or equal to the minimum demand at downstream delivery locations. If these conditions are not met, the Company cannot guarantee performance against the supply purchase agreement.

---

To be completed by responder

Response Date: 11/10/2021  
 Response by: Tara R. Vesey  
 Email Address: [tara.vesey@mdu.com](mailto:tara.vesey@mdu.com)  
 Phone Number: 701-222-7955



Minimum quantities are determined considering peak demand conditions. Great Plains must have supply either under contract or available for purchase from all contracted transportation receipt locations to meet firm demand requirements. Great Plains will contract higher levels of supply from locations where the Company does not have confidence it will be able to reliably find supply with short notice. Lower base levels of supply will be contracted from locations from which Great Plains has confidence it will be able to reliably find base supply on short notice. These determinations are made through communication with suppliers, responses to requests for proposal, and industry expertise.

Finally, maximum, and minimum quantities are determined based on pricing. If supply offers, including market index forecasts, discounts/premiums to index, and transportation costs, favor maximizing supply purchases from specific receipt locations, the Company will maximize those purchases in the interest of lowering overall supply and transportation costs.

- (e) Please see Response DOC No. 5 Attachment E for the filings associated with Docket No. G999/AA-21-114, G999/AAA-21-665, G004-M-20-562.
- (f) Please see the Excel file titled Response DOC No. 5 Attachment F.
- (g) Since the two cited Events, Great Plains has improved portfolio design by taking the following actions:
  1. Great Plains has since began purchasing a Base Supply of gas from NNG-Carlton that will meet Great Plains operational flow order obligation (OFO) when such are called by Northern Natural Gas (NNG). This step avoids exposure to potentially higher demand for supply at the North end of the NNG system when numerous shippers are required to meet their OFO obligations.
  2. Great Plains has begun to “shape” Base Supply agreements such that the Base Supply will be higher in the deep winter months lowering monthly exposure to daily index pricing. Prior to these events, Great Plains purchased a static Base Supply quantity from November through March leaving supplies during December through March more exposed to daily index pricing.

---

To be completed by responder

Response Date: 11/10/2021  
Response by: Tara R. Vesey  
Email Address: [tara.vesey@mdu.com](mailto:tara.vesey@mdu.com)  
Phone Number: 701-222-7955





- h. Please compare the baseload volume of gas procured for February 2021 versus the utility's procurement goal and explain any deviation.

Response:

- a) Please see the Company's Response to CUB Information Request No. 52 part g. The actual load information provided by the Company in that response does not include load from transportation customers.
- b) Please see the Company's Response to part a.
- c) Please see the Company's Response to part a.
- d) Please see the Company's Response to CUB Information Request No. 52, part f.
- e) The Company does not have the requested information.
- f) Please see the Company's response to CUB Information Request No. 52, part a-e.
- g) The February 2021 minimum load forecast was 189,763 MMBtu/d with baseload Supply of 168,800 MMBtu/d. In addition to the baseload supply purchase the Company also had to withdraw approximately 90,000-100,000 MMBtu/d average to meet the storage inventory ratchets by the end of February. Since that total volume exceeded the minimum load requirements it was determined no additional baseload would be needed.
- h) There were no deviations from the goal.

---

Preparer: Justin Holstein  
Title: Manager  
Department: Gas Resource Planning  
Telephone: 303-571-2750  
Date: December 9, 2021

**State of Minnesota**  
**Minnesota Department of Commerce**

**Utility Information Request**

Docket Number: G-008/M-21-138 - Cost Impacts/Extreme Weather

Date of Request: 12/1/2021

Requested From: CenterPoint Energy Minnesota Gas

Response Due: 12/9/2021

Analyst Requesting Information: Nancy Campbell

Type of Inquiry: Other

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

Request No.	
DOC 055	<p>Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.</p> <p>Topic: Load Volumes</p> <p>For each subpart below, please provide the requested data in native format with formulas intact.</p> <ul style="list-style-type: none"><li>a. Please provide actual daily load (with transport volumes delineated as appropriate) for February 2021 and for the 2016-21 winter heating seasons.</li><li>b. Please provide actual monthly load (with transport volumes delineated as appropriate) for February 2021 and for the 2016-21 winter heating seasons.</li><li>c. Please provide the actual minimum monthly load (with transport volumes delineated as appropriate) for February 2021 and for the 2016-21 winter heating seasons.</li><li>d. Please provide the forecasted daily load (with transport volumes delineated as appropriate) for February 2021.</li><li>e. Please provide a forecasted and actual load duration curve for February 2021 and each month of the 2016-21 winter heating seasons.</li></ul>

Response By: Paula Grizzle  
Title: Director, Gas Supply Portfolio Optimization  
Department: Gas Purchasing  
Telephone: 713-207-3389

- f. Please provide the amount of baseload gas (Dth/d) each month for the past 2016-21 winter heating seasons.
- g. Please provide any analysis or documentation supporting the determination of baseload volumes for February 2021.
- h. Please compare the baseload volume of gas procured for February 2021 versus the utility's procurement goal and explain any deviation.

**Response:**

- a. See Attachment\_DOC\_55.xlsx, tabs "2015-2016", "2016-2017", "2017-2018", "2018-2019", "2019-2020", and 2020-2021".
- b. See Attachment\_DOC\_55.xlsx, tab "DOC 55(b)".
- c. See Attachment\_DOC\_55.xlsx, tabs "2015-2016", "2016-2017", "2017-2018", "2018-2019", "2019-2020", and 2020-2021". The minimum monthly loads for each month are highlighted.
- d. See Attachment\_DOC\_55.d.xlsx.
- e. See Attachment\_DOC\_55.e.xlsx.
- f. See Attachment\_DOC\_55.xlsx, tabs "2015-2016", "2016-2017", "2017-2018", "2018-2019", "2019-2020", and 2020-2021".
- g. Please see discussion in the Direct Testimony of Paula Grizzle, Exhibit \_\_\_\_ (PJG-D), pages 6-7, 38-40, and Schedule 2, the Company's 2020-2021 Gas Procurement Plan, pages 9-10. Daily baseload volumes for each month are shown in Appendix D to the 2020-2021 Gas Procurement Plan. The monthly baseload volumes are based on the warmest forecast day within each winter month.
- h. See CenterPoint Energy's 2020 Gas Procurement Plan, Exhibit \_\_\_\_ (PJG-D), Schedule 2, Appendix D, for CenterPoint Energy's planned baseload volumes for February 2021. An excel version of Appendix D was provided with CenterPoint Energy's response to CUB Information Request No. 2. See Exhibit \_\_\_\_ (PJG-D), Schedule 3, for baseload volume of gas procured for February 2021. An excel version of this Schedule was provided with CenterPoint Energy's response to CUB Information Request No. 2. As outlined in the Company's Gas Procurement Plan, this Plan is intended as a guideline for CenterPoint

Response By: Paula Grizzle  
Title: Director, Gas Supply Portfolio Optimization  
Department: Gas Purchasing  
Telephone: 713-207-3389

Energy's gas supply purchasing and price hedging activities. Actual volumes, prices, and percentages stated in this Plan may vary as transactions occur and as actual weather and other operating factors vary from those used in the load study. This Plan will be adhered to as closely as practical, realizing that execution of any plan is subject to modifications to adjust for changing market, weather, operational and other conditions as it is implemented. Price forecasts in this Plan are forward looking and based upon CenterPoint Energy's analysis and interpretation of available data. Actual market conditions may vary from the assumptions used in CenterPoint Energy's analysis, causing such price forecasts to become inaccurate. CenterPoint Energy makes no representation that its price forecasts are suitable for applications other than in this planning document.

Response By: Paula Grizzle  
Title: Director, Gas Supply Portfolio Optimization  
Department: Gas Purchasing  
Telephone: 713-207-3389

- Not Public Document – Not For Public Disclosure  
 Public Document – Not Public Data Has Been Excised  
 Public Document

**Corrected**

Xcel Energy Information Request No. 7  
Docket No.: G002/CI-21-610, OAH 71-2500-37763  
Response To: Minnesota Department of Commerce  
Requestor: Nancy Campbell  
Date Received: November 2, 2021

---

Question:

Topic: Daily Gas Purchases  
Reference(s): All Gas Utilities' Testimony

The definitions provided in DOC Information Request No. 4 apply to this IR.

- (a) Please provide planned gas activity (which informed daily gas purchases) for each day of the Event including forecasted load and associated supply plan (baseload, swing, daily, storage, peaking, curtailments). Please provide data in its native form (i.e., Microsoft Excel) with all links and formulas intact. Please also provide this information for the 2017/18 New Year's Event and the 2019 Polar Vortex Event in the same format.
- (b) Please provide actual gas activity for each day of the Event including actual load and associated supply (baseload, swing, daily, storage, peaking, curtailments). Please provide data in its native form (i.e., Microsoft Excel) with all links and formulas intact. Please note and explain deviations with the planned quantities. Include the average cost associated with each supply category. Please also provide this information for the 2017/18 New Year's Event and the 2019 Polar Vortex Event in the same format.
- (c) Please provide a reference to the requirement stated in testimony to make ratable purchases over weekends in relevant supply arrangements, market offers, tariffs, or elsewhere.
- (d) Please provide a detailed explanation of any instance of the utility buying non-ratable weekend supply since January 1, 2010 and relevant details. For each such instance, provide relevant details including baseload, swing, daily, storage, peaking, curtailments, and any contracts or bids.

- (e) Please explain any options or possibility the utility is aware of to make non-ratable gas supply purchases over a Weekend.
- (f) Please provide a timetable of gas purchasing and selling during the Event and any intra-day activity during the Event. Identify at what time which purchases were made and relevant information, including but not limited to quantity and pricing information.
- (g) Please detail any offers received for fixed price supply received during or before the Event, including but not limited to the price, time received, and quantity.
- (h) Please detail any activity or attempt at wholesale gas sales during the Event and include any relevant documentation including but not limited to describing the methods used to offer or advertise the wholesale gas, whether the utility was able to locate a buyer, and if a buyer was found the difference in price between the wholesale gas purchased and sold.
- (i) Please provide a summary of any wholesale gas sales activity made since October 1, 2015 and provide an explanation of each instance including but not limited to describing the methods used to offer or advertise the wholesale gas, whether the utility was able to locate a buyer, and if a buyer was found the difference in price between the wholesale gas purchased and sold.
- (j) Please explain the utility's daily gas price forecasting. Please provide all relevant information and supporting analysis related to the utility's price expectation for the relevant gas days before index gas purchases were completed on Friday, February 12, 2021 and Tuesday, February 15, 2021.

Response:

- (a) Please see witness Derryberry's testimony page 26 Schedule 2 Table 3 for the February 2021 event. For the 2017/18 New Year's Event and the 2019 Polar Vortex Event please see DOC Information Request No. 7 Attachment A. Note, however, that the Company does not maintain historical records in the manner requested, and we have provided the information that we have readily available.
- (b) Please see witness Derryberry's testimony page 36 Schedule 2 Table 4 for the February 2021 event. For the 2017/18 New Year's Event and the 2019 Polar Vortex Event please see DOC Information Request No. 7 Attachment A. Note, however, that the Company does not maintain historical records in the

manner requested, and we have provided the information that we have readily available.

- (c) Purchasing ratable supply over weekends and holidays is not a regulatory or contract “requirement.” Rather, it is a market requirement. On Fridays when suppliers offer to sell gas, whether it is by direct contact or on the Intercontinental Exchange (ICE) platform, it is offered only for the duration of the weekend on a ratable basis. We have not identified any gas sellers (today or in the past) willing to sell significant quantities on a non-ratable basis over a weekend.
- (d) See the response to DOC Information Request No. 7(c). While there have been limited circumstances when the Company has made small limited purchases for an individual day during a weekend, such as was the case during the Event, the Company has not identified any sellers willing to sell us gas supply in non-ratable quantities over an entire weekend. Further, the Company does not maintain records in the manner assumed by this request, and pulling any records of all such purchases for the requested eleven-year period would be a labor-intensive and burdensome manual process.
- (e) See the response to DOC Information Request No. 7(c).
- (f) Please see witness Green’s testimony page 12, line 24 through page 15, line 6 and page 19, line 22 through page 20, line 14. The quantity and pricing information for the Company’s purchases during the February Event are in Mr. Derryberry’s workpapers, which were provided in response to CUB Information Request No. 2.
- (g) Generally speaking, fixed-price deals are offered on the ICE trading platform. Such deals are offered to all purchasers not just to the Company and would be found on the trading platform rather than in the Company’s records. For more details, please see Witness Green’s testimony, pages 5 line 10 through page 7 line 14 for a discussion of how the Company trades using the ICE platform, and the Company’s Response to Office of Attorney General Information Request No. 5 in Docket No, G999/CI-21-135 for specific ICE chat information.
- (h) The Company did not sell or attempt to sell wholesale gas during the event. As discussed in Witness Derryberry’s testimony on pages 10-11 of Schedule 2, there are a number of factors that make such sales inadvisable.



- (i) The Company has not sold wholesale gas since October 1, 2015. As discussed in Witness Derryberry's testimony on pages 10-11 of Schedule 2, there are a number of factors that make such sales inadvisable.
- (j) The Company subscribes to publications that provide after-the-fact daily and monthly pricing information. We also subscribe to services that provide longer-term price forecasting. There is no industry tool that provides forecasts of next day or same day price. The natural gas market is a true commodities market, and no one knows what the price will be from day to day. However, since gas prices had never risen to the levels experienced during the February Event, it is safe to say that no one expected prices to reach the levels seen during the February Event.

**Correction:**

The corrected Attachment A corrects some of the volumes previously provided for Wescott during the 2017/18 New Year's Event.

---

Preparer:	Justin Holstein	Craig Rozman
Title:	Manager	Manager
Department:	Gas Resource Planning	Gas Supply
Telephone:	303-571-2750	303-571-2844
Date:	November 16, 2021	

**Corrected:** November 17, 2021



**Minnesota Department of Commerce**  
**85 7th Place East | Suite 280 | St. Paul, MN 55101**  
**Information Request**

**Docket Nos:** OAH 71-2500-37763; MPUC M-21-138; M-21-235; CI-21-610; CI-21-611

X PUBLIC

**Requested From:** All Gas Utilities

Date of Request: 11/02/2021

**Type of Inquiry:** General

Response Due: 11/10/2021

**SEND RESPONSE VIA EMAIL TO:** Utility.Discovery@state.mn.us; commerce.attorneys@ag.state.mn.us;  
Nancy.Campbell@state.mn.us; Katherine.Hinderlie@ag.state.mn.us; Richard.Dornfeld@ag.state.mn.us

**Assigned Analyst(s):** Nancy Campbell

**Email Address(es):** Contact through counsel at katherine.hinderlie@ag.state.mn.us

**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

---

<b>Request Number:</b>	<b>7</b>
<b>Topic:</b>	Daily Gas Purchases
<b>Reference(s):</b>	All Gas Utilities' Testimony

---

The definitions provided in DOC Information Request No. 4 apply to this IR.

**Request:**

- (a) Please provide planned gas activity (which informed daily gas purchases) for each day of the Event including forecasted load and associated supply plan (baseload, swing, daily, storage, peaking, curtailments). Please provide data in its native form (i.e., Microsoft Excel) with all links and formulas intact. Please also provide this information for the 2017/18 New Year's Event and the 2019 Polar Vortex Event in the same format.
- (b) Please provide actual gas activity for each day of the Event including actual load and associated supply (baseload, swing, daily, storage, peaking, curtailments). Please provide data in its native form (i.e., Microsoft Excel) with all links and formulas intact. Please note and explain deviations with the planned quantities. Include the average cost associated with each supply category. Please also provide this information for the 2017/18 New Year's Event and the 2019 Polar Vortex Event in the same format.
- (c) Please provide a reference to the requirement stated in testimony to make ratable purchases over weekends in relevant supply arrangements, market offers, tariffs, or elsewhere.
- (d) Please provide a detailed explanation of any instance of the utility buying non-ratable weekend supply since January 1, 2010 and relevant details. For each such instance, provide relevant details including baseload, swing, -daily, storage, peaking, curtailments, and any contracts or bids.

---

To be completed by responder

Response Date: November 15, 2021  
Response by: Sarah Mead  
Email Address: Sarah.Mead@wecenergygroup.com  
Phone Number: 920-433-7647



**Minnesota Department of Commerce**  
**85 7th Place East | Suite 280 | St. Paul, MN 55101**  
**Information Request**

**Docket Nos:** OAH 71-2500-37763; MPUC M-21-138; M-21-235; CI-21-610; CI-21-611      X PUBLIC  
**Requested From:** All Gas Utilities      Date of Request: 11/02/2021  
**Type of Inquiry:** General      Response Due: 11/10/2021

**SEND RESPONSE VIA EMAIL TO:** Utility.Discovery@state.mn.us; commerce.attorneys@ag.state.mn.us;  
Nancy.Campbell@state.mn.us; Katherine.Hinderlie@ag.state.mn.us; Richard.Dornfeld@ag.state.mn.us

**Assigned Analyst(s):** Nancy Campbell

**Email Address(es):** Contact through counsel at katherine.hinderlie@ag.state.mn.us

**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

- 
- (e) Please explain any options or possibility the utility is aware of to make non-ratable gas supply purchases over a Weekend.
  - (f) Please provide a timetable of gas purchasing and selling during the Event and any intra-day activity during the Event. Identify at what time which purchases were made and relevant information, including but not limited to quantity and pricing information.
  - (g) Please detail any offers received for fixed price supply received during or before the Event, including but not limited to the price, time received, and quantity.
  - (h) Please detail any activity or attempt at wholesale gas sales during the Event and include any relevant documentation including but not limited to describing the methods used to offer or advertise the wholesale gas, whether the utility was able to locate a buyer, and if a buyer was found the difference in price between the wholesale gas purchased and sold.
  - (i) Please provide a summary of any wholesale gas sales activity made since October 1, 2015 and provide an explanation of each instance including but not limited to describing the methods used to offer or advertise the wholesale gas, whether the utility was able to locate a buyer, and if a buyer was found the difference in price between the wholesale gas purchased and sold.
  - (j) Please explain the utility's daily gas price forecasting. Please provide all relevant information and supporting analysis related to the utility's price expectation for the relevant gas days before index gas purchases were completed on Friday, February 12, 2021      and Tuesday, February 15, 2021.

**MERC Response:**

- a. MERC will provide available information responsive to this request as a supplement to this response.

---

To be completed by responder

Response Date: November 15, 2021  
Response by: Sarah Mead  
Email Address: Sarah.Mead@wecenergygroup.com  
Phone Number: 920-433-7647



**Minnesota Department of Commerce**  
**85 7th Place East | Suite 280 | St. Paul, MN 55101**  
**Information Request**

**Docket Nos:** OAH 71-2500-37763; MPUC M-21-138; M-21-235; CI-21-610; CI-21-611

**Requested From:** All Gas Utilities

**Date of Request:** 11/02/2021

**Type of Inquiry:** General

**Response Due:** 11/10/2021

**SEND RESPONSE VIA EMAIL TO:** Utility.Discovery@state.mn.us; commerce.attorneys@ag.state.mn.us;  
Nancy.Campbell@state.mn.us; Katherine.Hinderlie@ag.state.mn.us; Richard.Dornfeld@ag.state.mn.us

**Assigned Analyst(s):** Nancy Campbell

**Email Address(es):** Contact through counsel at katherine.hinderlie@ag.state.mn.us

**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

- 
- b. MERC will provide available information responsive to this request as a supplement to this response.
  
  - c. As described in the Direct Testimony of Sarah Mead at 46, the daily gas market does not actively trade over weekends and holidays. Purchases with ratable deliveries are the industry and market standard for the weekends. 21-611 MERC Response to Department IR No. 007 - Exhibit IR7c1 has two illustrations to highlight this standard. The first illustration is of an Intercontinental Exchange (ICE) trading platform. ICE is the most liquid and utilized electronic trading platform for the natural gas trading marketplace. The red circle is around posted supply basins available for trading to occur for dates over the weekend, in this case for November 6th- November 8th. A vast majority of available trades on ICE over a weekend are done on a ratable basis.

The second illustration is of the Gas Daily publication that posts the daily indices that are the industry standard. This edition of Gas Daily is showing the Gas Daily Daily indices for the weekend flow dates October 23-October 25. Only those deals that are ratable for a weekend are used to contribute to the calculation of the Gas Daily Daily Index.

- d. MERC will provide available information responsive to this request as a supplement to this response.
  
- e. Generally, non-ratable weekend gas purchases, while not very liquid, can occur at some of the more liquid locations such as NNG Ventura or NNG Demarc. It is not as available, or not available at all, at some of the less liquid locations like Centra-Spruce. When soliciting offers for non-ratable weekend deliveries, it has been observed that the counterparties when they do offer non-ratable supply, it is only offered with a significant premium over the market price for a ratable delivery.

The liquidity for non-ratable weekend gas purchases drops significantly during severe cold periods or during periods of significant price spikes. The rationale for the drop in liquidity from the supplier's perspective is during these periods, demand for ratable supply is high so the supplier has a choice to offer supply on a ratable basis

---

To be completed by responder

**Response Date:** November 15, 2021  
**Response by:** Sarah Mead  
**Email Address:** Sarah.Mead@wecenergygroup.com  
**Phone Number:** 920-433-7647



**Minnesota Department of Commerce**  
**85 7th Place East | Suite 280 | St. Paul, MN 55101**  
**Information Request**

**Docket Nos:** OAH 71-2500-37763; MPUC M-21-138; M-21-235; CI-21-610; CI-21-611

**Requested From:** All Gas Utilities

**Date of Request:** 11/02/2021

**Type of Inquiry:** General

**Response Due:** 11/10/2021

**SEND RESPONSE VIA EMAIL TO:** Utility.Discovery@state.mn.us; commerce.attorneys@ag.state.mn.us; Nancy.Campbell@state.mn.us; Katherine.Hinderlie@ag.state.mn.us; Richard.Dornfeld@ag.state.mn.us

**Assigned Analyst(s):** Nancy Campbell

**Email Address(es):** Contact through counsel at katherine.hinderlie@ag.state.mn.us

**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

---

for all 3 days versus selling only for a day or two and having supply sit idle one 1 or 2 days, when prices are higher than normal.

f. See "21-611 MERC Response to Department IR No. 007.f. - list of transactions\_HIGHLY CONFIDENTIAL TRADE SECRET" for a list of deals with relevant information including when the deal occurred, volume and price.

g. MERC did not receive quotes for any fixed-price contracts for the February 13-17 gas days. See Direct Testimony of Sarah Mead at 31-33, 53.

h. There was no activity or attempt to sell wholesale gas during the Event.

i. MERC will provide available information responsive to this request as a supplement to this response.

j. MERC does not perform a daily gas price forecast. MERC does monitor the market prices for the relevant supply basins on the Intercontinental Exchange (ICE) trading platform. During typical cold weather periods that cause price spikes, past experiences of market prices may help guide expectations for future prices (i.e. increase or decrease from previous day). This event though, was not a typical event and the unprecedented market prices reflected that.

In accordance with the October 8, 2021 Protective Order and October 26, 2021 Amended Protective Order for Highly-Confidential Trade Secret Data, the Highly Confidential Trade Secret version of "21-611 MERC Response to Department IR No. 007.f. - list of transactions\_HIGHLY CONFIDENTIAL TRADE SECRET" contains highly confidential trade secret information as defined in the Amended Protective Order for Highly Confidential Trade Secret Data. MERC's competitors and suppliers would gain a competitive advantage if this information were publicly available. As a result of public availability, MERC and its customers would suffer in potential competitive disadvantage. This information is not known or readily ascertainable by others who could obtain financial advantage from its use.

---

To be completed by responder

**Response Date:** November 15, 2021

**Response by:** Sarah Mead

**Email Address:** Sarah.Mead@wecenergygroup.com

**Phone Number:** 920-433-7647



**MERC SUPPLEMENTAL RESPONSE (NOVEMBER 15, 2021)**

- a. Please see MERC’s supplemental response to Department’s Information Request No. 004 and 004-Supplemental. Specifically see the following attachments for the planned activity of the three events:
- 21-611 MERC Response to Department IR No. 004 Event\_Supply\_Forecast\_Actual\_HIGHLY CONFIDENTIAL TRADE SECRET
  - Docket 21-611 MERC Response to Department IR No. 004\_SUPPLEMENTAL – Attachment\_4d\_\_NYE\_SUPPLY\_HIGHLY CONFIDENTIAL TRADE SECRET.xlsx
  - Docket 21-611 MERC Response to Department IR No. 004\_SUPPLEMENTAL – Attachment\_4d\_\_PV\_SUPPLY\_HIGHLY CONFIDENTIAL TRADE SECRET.xlsx
- b. Please see MERC’s response to Department’s Information Request No. 004 and 004-Supplemental. Specifically see the following attachments for the actual activity of the three events:
- 21-611 MERC Response to Department IR No. 004 Event\_Supply\_Forecast\_Actual\_HIGHLY CONFIDENTIAL TRADE SECRET
  - Docket 21-611 MERC Response to Department IR No. 004\_SUPPLEMENTAL – Attachment\_4d\_\_NYE\_SUPPLY\_HIGHLY CONFIDENTIAL TRADE SECRET.xlsx
  - Docket 21-611 MERC Response to Department IR No. 004\_SUPPLEMENTAL – Attachment\_4d\_\_PV\_SUPPLY\_HIGHLY CONFIDENTIAL TRADE SECRET.xlsx

The deviation between the Planned and Actual are supply cuts received and reductions from the planned maximum storage withdrawal on NNG that occurs at 8am of the gas day ending (as described on page 59 of the Direct Testimony of Sarah Mead) .

- d. See attached Docket 21-611 MERC Response to Department IR No. 007\_SUPPLEMENTAL – attachment\_7d\_HIGHLY CONFIDENTIAL TRADE SECRET.xlsx for a list of MERC purchases made for non-ratable weekend supply for the period November 2017-February 2021. For purposes of this response, MERC also included Monday only purchases made on the previous Friday in the list (DOC IR. No. 004 defined “Weekend” as Saturday and Sunday but didn’t speak to Mondays). Purchases were due to fluctuating load variations occurring over the weekend period. As noted, the supplier either provided a fixed or indexed price for the delivery date noted. The identified transactions were not part of a baseload or swing deal; they were purchased as a single day deal only.
- i. See attached 21-611 MERC Response to Department IR No. 007\_SUPPLEMENTAL – attachment\_7i\_HIGHLY CONFIDENTIAL TRADE SECRET.xlsx for a summary of MERC sales since November 2017. Column M of the attached summary includes a brief explanation for the reasons for each sale. All sales made were to the counterparty the original purchased gas was made from. The original purchase price (column J), sale price (column K), and difference in prices (column L) are included.

In accordance with the October 8, 2021 Protective Order and October 26, 2021 Amended Protective Order for Highly-Confidential Trade Secret Data, the Highly Confidential Trade Secret version Docket 21-611 MERC Response to Department IR No. 007\_SUPPLEMENTAL – attachment\_7d\_HIGHLY CONFIDENTIAL TRADE SECRET.xlsx and 21-611 MERC Response to Department IR No. 007\_SUPPLEMENTAL – attachment\_7i\_HIGHLY CONFIDENTIAL TRADE SECRET.xlsx contain highly confidential trade secret information as defined in the Amended Protective Order for Highly Confidential Trade Secret Data. MERC’s competitors and suppliers would gain a competitive advantage if this information were publicly available. As a result of public availability, MERC and its customers

To be completed by responder

Response Date: November 15, 2021  
Response by: Sarah Mead  
Email Address: Sarah.Mead@wecenergygroup.com  
Phone Number: 920-433-7647



would suffer in potential competitive disadvantage. This information is not known or readily ascertainable by others who could obtain financial advantage from its use.

---

To be completed by responder

Response Date: November 15, 2021  
Response by: Sarah Mead  
Email Address: Sarah.Mead@wecenergygroup.com  
Phone Number: 920-433-7647

**Minnesota Department of Commerce**  
**85 7th Place East | Suite 280 | St. Paul, MN 55101**  
**Information Request**

**Docket Nos:** OAH 71-2500-37763; MPUC M-21-138; M-21-235; CI-21-610; CI-21-611 Nonpublic Public  
**Requested From:** All Gas Utilities **Date of Request:** 11/02/2021  
**Type of Inquiry:** General **Response Due:** 11/10/2021

**SEND RESPONSE VIA EMAIL TO:** Utility.Discovery@state.mn.us; commerce.attorneys@ag.state.mn.us;  
Nancy.Campbell@state.mn.us; Katherine.Hinderlie@ag.state.mn.us; Richard.Dornfeld@ag.state.mn.us  
**Assigned Analyst(s):** Nancy Campbell  
**Email Address(es):** Contact through counsel at katherine.hinderlie@ag.state.mn.us  
**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

---

<b>Request Number:</b>	<b>7</b>
<b>Topic:</b>	Daily Gas Purchases
<b>Reference(s):</b>	All Gas Utilities' Testimony

---

The definitions provided in DOC Information Request No. 4 apply to this IR.

**Request:**

- (a) Please provide planned gas activity (which informed daily gas purchases) for each day of the Event including forecasted load and associated supply plan (baseload, swing, daily, storage, peaking, curtailments). Please provide data in its native form (i.e., Microsoft Excel) with all links and formulas intact. Please also provide this information for the 2017/18 New Year's Event and the 2019 Polar Vortex Event in the same format.
- (b) Please provide actual gas activity for each day of the Event including actual load and associated supply (baseload, swing, daily, storage, peaking, curtailments). Please provide data in its native form (i.e., Microsoft Excel) with all links and formulas intact. Please note and explain deviations with the planned quantities. Include the average cost associated with each supply category. Please also provide this information for the 2017/18 New Year's Event and the 2019 Polar Vortex Event in the same format.
- (c) Please provide a reference to the requirement stated in testimony to make ratable purchases over weekends in relevant supply arrangements, market offers, tariffs, or elsewhere.
- (d) Please provide a detailed explanation of any instance of the utility buying non-ratable weekend supply since January 1, 2010 and relevant details. For each such instance, provide relevant details including baseload, swing, daily, storage, peaking, curtailments, and any contracts or bids.



**Minnesota Department of Commerce**  
**85 7th Place East | Suite 280 | St. Paul, MN 55101**  
**Information Request**

**Docket Nos:** OAH 71-2500-37763; MPUC M-21-138; M-21-235; CI-21-610; CI-21-611 Nonpublic Public  
**Requested From:** All Gas Utilities **Date of Request:** 11/02/2021  
**Type of Inquiry:** General **Response Due:** 11/10/2021

**SEND RESPONSE VIA EMAIL TO:** Utility.Discovery@state.mn.us; commerce.attorneys@ag.state.mn.us;  
Nancy.Campbell@state.mn.us; Katherine.Hinderlie@ag.state.mn.us; Richard.Dornfeld@ag.state.mn.us  
**Assigned Analyst(s):** Nancy Campbell  
**Email Address(es):** Contact through counsel at katherine.hinderlie@ag.state.mn.us  
**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

- 
- (e) Please explain any options or possibility the utility is aware of to make non-ratable gas supply purchases over a Weekend.
  - (f) Please provide a timetable of gas purchasing and selling during the Event and any intra-day activity during the Event. Identify at what time which purchases were made and relevant information, including but not limited to quantity and pricing information.
  - (g) Please detail any offers received for fixed price supply received during or before the Event, including but not limited to the price, time received, and quantity.
  - (h) Please detail any activity or attempt at wholesale gas sales during the Event and include any relevant documentation including but not limited to describing the methods used to offer or advertise the wholesale gas, whether the utility was able to locate a buyer, and if a buyer was found the difference in price between the wholesale gas purchased and sold.
  - (i) Please provide a summary of any wholesale gas sales activity made since October 1, 2015 and provide an explanation of each instance including but not limited to describing the methods used to offer or advertise the wholesale gas, whether the utility was able to locate a buyer, and if a buyer was found the difference in price between the wholesale gas purchased and sold.
  - (j) Please explain the utility's daily gas price forecasting. Please provide all relevant information and supporting analysis related to the utility's price expectation for the relevant gas days before index gas purchases were completed on Friday, February 12, 2021 and Tuesday, February 15, 2021.

**Response:**

- (a) Please see Excel files titled Response DOC No. 7 Attachment A1 and Response DOC No. 7 Attachment A2.

Attachment A1 displays information used on February 12<sup>th</sup> for the weekend/holiday and Attachment A2 displays information used on February 16<sup>th</sup> for the following Wednesday. Remarks are made on a best effort basis to replicate the circumstances at the time. No such information is available for the 2017/2018 New Year's Event or the 2019 Polar Vortex. Time lapse, personnel attrition, and lack of records would make such a simulation speculative.

- (b) Please see Response DOC No. 7 Attachment A1 and Response DOC No. 7 Attachment A2. Attachment A1 displays information used on February 12<sup>th</sup> for the weekend/holiday and Attachment A2 displays information used on February 16<sup>th</sup> for the following Wednesday. Remarks are made on a best effort basis to replicate the circumstances at the time. No such information is available for the 2017/2018 New Year's Event or the 2019 Polar Vortex. Time lapse, personnel attrition, and lack of records would make such a simulation speculative.
- (c) Ratable purchase quantities over weekends/holidays are a function of natural gas commodity market closures over weekends/holidays. Deviating from this practice is highly irregular and offers for variable supply quantities are not generally available. Please refer to Response DOC No. 7 Attachment C to see the published ICE U.S. Next Day Gas Trading Calendar. The following special provision was in place for each of the Swing Supply contracts.

The following special provision was in place for each of the Swing Supply contracts. Such provisions are customary with Swing Supply contracts.

Special Conditions :

Great Plains Natural Gas (GPNG) to call for daily volume(s) by 7:45 AM Central Time per the ICE U.S. Next Day Gas Trading Calendar. GPNG may call for up to 12,000 Dkt/d in aggregate for deliveries to Marshall and/or Ventura.

- (d) Great Plains has not found record of any instance where the utility purchased non-ratable weekend supply since January 1, 2010.
- (e) Great Plains is not aware of any options to make non-ratable gas supply purchases over a weekend.
- (f) Trading activities for the Event took place the morning of February 12<sup>th</sup> for flows on February 13-16. Trading activities for the Event took place on the morning of February 16<sup>th</sup> for flows on February 17. Great Plains does not regularly participate in intra-day trading activity. To ensure firm delivery, nominations should be placed during the timely cycle, particularly during time of system constraints.
- (g) Please see Response DOC No. 7 Attachment A1. There was a single offer of \$85/Dth made against a request for 500 Dth.
- (h) Great Plains did not attempt to perform any wholesale gas activity during the Event. Great Plains operates strictly as a purchaser of natural gas purchasing supplies solely to meet the needs of its customers.
- (i) Great Plains has not found record of wholesale gas sales activity since October 1, 2015.
- (j) Great Plains does not employ extensive analysis to develop real-time daily natural gas price forecasting. When Day Gas or Swing Supply is required to meet demand, supply arrangements must be made prior to 8:00 am to ensure supply is available to meet the needs of Great Plains' firm customers. Great Plains monitors Intercontinental Exchange (ICE) throughout the day for changing marketing conditions, but rarely are bid/ask

prices posted prior to 8:00 am.

**State of Minnesota**  
**Minnesota Department of Commerce**

**Utility Information Request**

Docket Number: G-008/M-21-138 - Cost Impacts/Extreme Weather

Date of Request: 11/2/2021

Requested From: CenterPoint Energy Minnesota Gas

Response Due: 11/10/2021

Analyst Requesting Information: Nancy Campbell

Type of Inquiry: Other

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

Request No.	
DOC 07 P - S	<p data-bbox="411 779 973 855">Topic: Daily Gas Purchases Reference(s): All Gas Utilities' Testimony</p> <p data-bbox="411 896 1394 972">The definitions provided in DOC Information Request No. 4 apply to this IR.</p> <ul data-bbox="411 999 1394 1843" style="list-style-type: none"><li data-bbox="411 999 1394 1263">a. Please provide planned gas activity (which informed daily gas purchases) for each day of the Event including forecasted load and associated supply plan (baseload, swing, daily, storage, peaking, curtailments). Please provide data in its native form (i.e., Microsoft Excel) with all links and formulas intact. Please also provide this information for the 2017/18 New Year's Event and the 2019 Polar Vortex Event in the same format.</li><li data-bbox="411 1308 1394 1617">b. Please provide actual gas activity for each day of the Event including actual load and associated supply (baseload, swing, daily, storage, peaking, curtailments). Please provide data in its native form (i.e., Microsoft Excel) with all links and formulas intact. Please note and explain deviations with the planned quantities. Include the average cost associated with each supply category. Please also provide this information for the 2017/18 New Year's Event and the 2019 Polar Vortex Event in the same format.</li><li data-bbox="411 1662 1394 1769">c. Please provide a reference to the requirement stated in testimony to make ratable purchases over weekends in relevant supply arrangements, market offers, tariffs, or elsewhere.</li><li data-bbox="411 1814 1394 1843">d. Please provide a detailed explanation of any instance of the utility</li></ul>

Response By: Jeffrey Toys  
Title: Manager, Gas Supply Optimization  
Department: Gas Purchasing  
Telephone: 713-207-4835

buying non-ratable weekend supply since January 1, 2010 and relevant details. For each such instance, provide relevant details including baseload, swing, daily, storage, peaking, curtailments, and any contracts or bids.

- e. Please explain any options or possibility the utility is aware of to make non-ratable gas supply purchases over a Weekend.
- f. Please provide a timetable of gas purchasing and selling during the Event and any intra-day activity during the Event. Identify at what time which purchases were made and relevant information, including but not limited to quantity and pricing information.
- g. Please detail any offers received for fixed price supply received during or before the Event, including but not limited to the price, time received, and quantity.
- h. Please detail any activity or attempt at wholesale gas sales during the Event and include any relevant documentation including but not limited to describing the methods used to offer or advertise the wholesale gas, whether the utility was able to locate a buyer, and if a buyer was found the difference in price between the wholesale gas purchased and sold.
- i. Please provide a summary of any wholesale gas sales activity made since October 1, 2015 and provide an explanation of each instance including but not limited to describing the methods used to offer or advertise the wholesale gas, whether the utility was able to locate a buyer, and if a buyer was found the difference in price between the wholesale gas purchased and sold.
- j. Please explain the utility's daily gas price forecasting. Please provide all relevant information and supporting analysis related to the utility's price expectation for the relevant gas days before index gas purchases were completed on Friday, February 12, 2021 and Tuesday, February 15, 2021.

**Response:**

**Contains Highly Confidential Trade Secret Information:**

CenterPoint Energy Minnesota Gas has designated information in attachments to this document as highly confidential trade secret. The information meets the definition of trade secret in Minn. Stat. § 13.37,

Response By: Jeffrey Toys  
Title: Manager, Gas Supply Optimization  
Department: Gas Purchasing  
Telephone: 713-207-4835

subd. 1(b), as follows: (1) the information was supplied by CenterPoint Energy Minnesota Gas, the affected organization; (2) CenterPoint Energy Minnesota Gas has taken all reasonable efforts to maintain the secrecy of the information; and (3) the protected information contains gas pricing information which derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.

CenterPoint Energy Minnesota Gas has designated information in attachments to this document as highly confidential trade secret. The information meets the definition of trade secret in Minn. Stat. § 13.37, subd. 1(b), as follows: (1) the information was supplied by CenterPoint Energy Minnesota Gas, the affected organization; (2) CenterPoint Energy Minnesota Gas has taken all reasonable efforts to maintain the secrecy of the information; and (3) the protected information contains gas pricing information which derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.

- a. See Exhibit \_\_\_(JTT-D), Schedule 7, for information regarding the February Market Event. CenterPoint Energy will supplement this response with data on the other two events at a later time.
- b. See Exhibit \_\_\_(JTT-D), Schedule 7, for information regarding the February Market Event. CenterPoint Energy will supplement this response with data on the other two events at a later time.
- c. Similar to other financial markets, gas trades on an open exchange during business days (i.e., not weekends or holidays). As explained in the S&P Global Platts Methodology and Specifications Guide: US and Canada Natural Gas, "Gas typically trades on Friday for delivery Saturday, Sunday and Monday; in cases of three-day holiday weekends, trading typically covers the extra flow day." (Page 4.) For weekends and holidays, S&P Global Platts Gas Daily reports one set of prices resulting from Friday trades that applies to flow dates that include each day over the weekend (and holiday, if applicable). Similarly, S&P Global Platts Gas Daily reports one set of volumes (in 000 MMBtu/day) from Friday trades that applies to flow dates that include each day over the weekend (and holiday, if applicable).

See also CenterPoint Energy's response to CUB Information Request No. 20. Suppliers ask for specific language in each transaction

confirmation. Each transaction may have specific terms and conditions. However, all of CenterPoint Energy's swing (call) supply is ratable for weekend and holiday volumes.

- d. See Attachment DOC-7(d) for available information regarding non-ratable weekend purchases since 2014. Information prior to 2014 is not available.
- e. As explained in the Direct Testimony of Witness Toys, there are some suppliers that will offer non-ratable daily spot gas, but they will only do so at a premium. In addition, the volumes offered tend to be small, and there is no historical record because these transactions tend to be bilateral and not reported to an index. As a result, relying on these transactions can be very risky. Also as explained in the Direct Testimony of Witness Toys, the Company uses its storage assets as a non-ratable gas supply to account for changing demands over weekends.
- f. See the Direct Testimony of Mr. Jeffrey Toys at 22-25, 31-61 and Exhibit \_\_\_(JTT-D), Schedule 6, for a detailed timetable of gas purchasing during the February Market Event.
- g. CenterPoint Energy did not receive any offers for fixed price supply during the February Market Event.
- h. CenterPoint Energy did not attempt to sell gas. See CenterPoint Energy's response to OAG Information Request No. 115 in Docket No. G999/CI-21-135.
- i. See Attachment DOC-7(i) for available information regarding wholesale gas sales since October 2015. CenterPoint Energy does not engage in wholesale gas sales on a daily basis. There have been occasions in the past where CenterPoint Energy sold gas back to an existing baseload supplier due to extremely warm weather and an effort to avoid pipeline penalties. The sale accrued on October 14, 2019 for 20,000 Dth/day at a fixed price of \$1.55. Detailed information regarding the specific circumstances of historic wholesale gas sales is not available.
- j. CenterPoint Energy does not perform a daily price forecast. CenterPoint Energy does monitor pricing information, as described in the Direct Testimony of Mr. Jeffrey Toys. On a daily basis, we look at the prior day Gas Daily Daily (volume-weighted average) index, as well

as the highest and lowest prices reported to Gas Daily. In addition, we monitor fixed price transactions on ICE from the prior day to see what fixed price transactions were executed, understanding that these are only a subset of all traded natural gas. Thus, we use the prior day's Gas Daily Daily index pricing information and the prior day's ICE fixed price transactions as price information tools.

---

Supplemented 11/15/21:

a. See the Company's supplemental response to DOC 04 for forecasted load during the 2017/2018 New Years Day Event and the 2019 Polar Vortex. See "DR 7(a) -2019 Polar Vortex-Plans" and "DR 7(a) December 2017 Supply-Plans" for planned supply by category.

b. See the Company's supplemental response to DOC 04 for actual load during the 2017/2018 New Years Day Event and the 2019 Polar Vortex. See attached spreadsheets "DR 7(b) -2019 Polar Vortex - Actuals" and "DR 7(b) - December 2017 Supply - Actuals" for actual supply by category. See the Direct Testimony of Ms. Paula Grizzle at 8-9 and the Direct Testimony of Mr. John Heer at 9-10, 17-18, 25 and 28 for a discussion of how the Company uses storage and peak shaving assets to manage weather changes and customer consumption fluctuations which cause deviations between planned and actual throughput quantities.



PUBLIC DOCUMENT - NOT PUBLIC DATA HAS BEEN EXCISED

[TRADE SECRET DATA BEGINS...]													
TSP Name	Location	Counterparty	Deal Type	Deal Start Date	Deal EndDate	Transaction Date	Price Structure	Deal Price Structure Name	Price	Price Differential	Total Deal Quantity	UOM	Period
NNG	Demarc		SALES	11/03/2015	11/03/2015	11/02/2015	INDEX	GDDemarc			20,000	MMB	DAY
NNG	MID17		SALES	11/03/2015	11/03/2015	11/02/2015	INDEX	GDVentura			20,000	MMB	DAY
NNG	MID17		SALES	11/04/2015	11/04/2015	11/03/2015	INDEX	GDVentura			30,000	MMB	DAY
NNG	Demarc		SALES	11/04/2015	11/04/2015	11/03/2015	INDEX	GDDemarc			30,000	MMB	DAY
NNG	Ventura		SALES	02/18/2016	02/18/2016	02/17/2016	INDEX	GDVentura			20,000	MMB	DAY
NNG	Ventura		SALES	02/18/2016	02/18/2016	02/17/2016	INDEX	GDVentura			7,500	MMB	DAY
NNG	Ventura		SALES	02/19/2016	02/29/2016	02/17/2016	INDEX	GDVentura			440,000	MMB	DAY
NNG	Carlton		SALES	02/18/2016	02/18/2016	02/17/2016	INDEX	GDVentura			-	MMB	DAY
NNG	Demarc		SALES	02/19/2016	02/29/2016	02/17/2016	INDEX	GDDemarc			1,100,000	MMB	DAY
NNG	Ventura		SALES	02/19/2016	02/29/2016	02/17/2016	INDEX	GDVentura			632,500	MMB	DAY
NNG	Ventura		SALES	02/18/2016	02/18/2016	02/17/2016	INDEX	GDVentura			20,000	MMB	DAY
VIKING	Emerson		SALES	02/18/2016	02/18/2016	02/17/2016	INDEX	GDEmerson			36,000	MMB	DAY
NNG	Ventura		SALES	02/18/2016	02/18/2016	02/17/2016	INDEX	GDVentura			20,000	MMB	DAY
NNG	Emerson		SALES	02/19/2016	02/22/2016	02/17/2016	INDEX	GDVentura			-	MMB	DAY
NNG	Demarc		SALES	02/18/2016	02/18/2016	02/17/2016	INDEX	GDDemarc			100,000	MMB	DAY
NNG	Ventura		SALES	02/18/2016	02/18/2016	02/17/2016	INDEX	GDVentura			37,500	MMB	DAY
NNG	Ventura		SALES	02/18/2016	02/18/2016	02/17/2016	INDEX	GDVentura			15,000	MMB	DAY
NNG	Carlton		SALES	02/18/2016	02/18/2016	02/17/2016	INDEX	GDVentura			-	MMB	DAY
NNG	Ventura		SALES	02/19/2016	02/29/2016	02/17/2016	INDEX	GDVentura			165,000	MMB	DAY
NNG	Beatrice		SALES	04/28/2018	04/30/2018	04/27/2018	INDEX	GDDemarc			60,000	MMB	DAY
NNG	Beatrice		SALES	04/28/2018	04/30/2018	04/27/2018	INDEX	GD Amarillo			90,000	MMB	DAY
NNG	Ventura		SALES	10/14/2019	10/14/2019	10/14/2019	FIXED	Fixed Price			20,000	MMB	DAY
...TRADE SECRET DATA ENDS]											2,863,500		

**State of Minnesota**  
**Minnesota Department of Commerce**

**Utility Information Request**

Docket Number: G-008/M-21-138 - Cost Impacts/Extreme Weather Date of Request: 11/16/2021

Requested From: CenterPoint Energy Minnesota Gas Response Due: 11/24/2021

Analyst Requesting Information: Nancy Campbell

Type of Inquiry: Other

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

Request No.	
DOC 39 P	<p>Where applicable, provide your answers in a live, unlocked spreadsheet with all links and formulas intact. If the calculations or data origins are not obvious/labeled, provide a narrative explanation.</p> <p>Topic: 2020-21 Gas Procurement Plan Reference(s): Reed Direct</p> <p>Please refer to the Direct Testimony of John J. Reed and attached schedules filed on behalf of CenterPoint Energy Resources Corp. ("CenterPoint") on October 22, 2021.</p> <p>a) On page 25, lines 13-15, Mr. Reed states: "For example, not all utilities have on-system peaking supplies, some use no-notice storage or other no-notice pipeline purchases to fulfill intraday peaking flexibility needs."</p> <p>Please discuss the availability and applicability of no-notice service for gas utilities in Minnesota.</p> <p>b) On page 26, lines 8-10, Mr. Reed states: "Approximately 66% of 8 normal winter demand and up to 77% of peak day requirements is planned to be met from storage."</p> <p>i. Please discuss if gas utilities typically hedge and plan for both normal winter demand and peak day requirements. ii. Please explain how Consumers Energy is hedged more on a peak day than on average.</p> <p>c) On page 27, lines 14-15, Mr. Reed states: "As summarized below, other</p>

Response By: John Reed  
Title: Chairman and Chief Executive Officer  
Department: Concentric Energy Advisors  
Telephone: 508-263-6262

utilities use minimum daily load expectations to establish a reasonable level for baseload purchase."

Please discuss if a level of baseload gas above minimum daily load expectations may be reasonable.

d) On page 32, lines 11-16, Mr. Reed states:

As explained by Witness Grizzle, Viking-Emerson capacity was baseloaded for several reasons, including the fact that the Emerson spot market is periodically less liquid than Ventura or Demarc and that there are operational benefits associated with maximizing deliveries from Viking because it ultimately feeds the northern portion of CenterPoint Energy's distribution system whereas most other supplies come from the south.

Please provide analysis that supports the level of liquidity at Emerson in the spot market verses Ventura and Demarc.

e) On page 36, lines 19-20, to page 37, lines 1-2, Mr. Reed States:

In addition, as explained in its Gas Procurement Plan, CenterPoint Energy's dispatch plan calls for curtailing interruptible customers when load exceeds transportation capacity (i.e., prior to using peaking supplies), although I understand there may be some exceptions to this plan as discussed by Witness Heer.

Please reconcile the utility's plan to use curtailment prior to peaking supplies with the actual curtailment and peaking actions taken during the event.

f) On page 40, lines 12-14, Mr. Reed states:

There is no industry standard that interruptible sales customers should be curtailed if the marginal gas supplies could be resold at a higher price, or higher cost purchases could be avoided by curtailing interruptible sales customers.

i. Is Mr. Reed aware of any industry instances of curtailment for economic reasons?

ii. If the above answer is yes, please describe these instances.

g) Beginning on page 40, line 17 and ending on page 41, line 4, Mr. Reed

Response By: John Reed  
Title: Chairman and Chief Executive Officer  
Department: Concentric Energy Advisors  
Telephone: 508-263-6262

states:

If price-based interruptions were required by the Commission, and the price trigger for interruption was set at whenever marginal gas costs rose above the projected per unit interruptible rate in effect for that month, I would expect that customer curtailment days (i.e., number of customers curtailed times number of days curtailed) for CenterPoint Energy's interruptible sales customers would increase from less than 100 per year currently, to thousands of customer curtailment days per year. That is an extraordinarily different service than what interruptible customers signed up for, and the pricing of the interruptible service does not reflect this distinctly lower quality of service

Please explain what price trigger Mr. Reed considered and provide supporting analysis.

h) On page 45, lines 1-4, Mr. Reed states:

CenterPoint Energy's procurement plan for the winter of 2020/21 included purchasing 23.0 Bcf of hedged baseload contracts plus 26.9 Bcf of storage, for a total of 49.9 Bcf of planned winter supplies with stabilized monthly prices, which equates to approximately 48% of expected normal winter system sales load.

From page 45, line 20, to page 46, line 2, Mr. Reed continues:

Therefore, both baseload and storage purchases provide implicit physical hedges against daily price volatility. Baseload plus storage represents about two-thirds of the expected requirements for the winter.

Please reconcile the 48% hedge level vs the two-third hedge level.

i) One page 48, lines 8-10, Mr. Reed states: "As shown in the following figure, CenterPoint Energy consistently planned to have price stabilization tools in place for 48-53% of expected winter system purchases over the last five winters."

Please compare and contrast the 50% winter hedging target with targets from any other utilities Mr. Reed is aware of.

j) On page 52, lines 6-8, Mr. Reed states: "Both daily calls and daily spot purchases typically require ratable takes over weekends and holidays since the natural gas market only trades on business days."

Response By: John Reed  
Title: Chairman and Chief Executive Officer  
Department: Concentric Energy Advisors  
Telephone: 508-263-6262

i. Is Mr. Reed aware of any options or possibility to make non-ratable gas supply purchases over a weekend?

ii. If the answer to the above is "yes" please explain.

k) On page 52, lines 14-16, Mr. Reed states: "This level of planned swing purchases as well as the plan to purchase swing gas at daily spot index prices is consistent with other utilities, as summarized below." Mr. Reed then provides examples of two utilities.

i. Is Mr. Reed aware of any other gas utilities' planned daily spot price exposure levels for recent years.

ii. How many other gas utilities planned daily spot price exposure levels is Mr. Reed aware of or familiar with?

iii. For each gas utility above, please provide the timeframe of planned daily spot price exposure levels for which Mr. Reed has knowledge.

iv. Please list the other gas utilities planned daily spot price exposure levels is Mr. Reed aware of or familiar with.

l) On page 56, lines 5-6, Mr. Reed states: "As discussed previously, PSE balances daily positions using underground, day-ahead purchases and off-system sales transactions."

i. Please expand on how gas utilities can use off-system sales to balance daily positions.

ii. Please describe any instances of which Mr. Reed is aware in which a gas utility made wholesale sales.

m) On page 72, lines 8-11, Mr. Reed states:

In addition, to my knowledge other utilities did not alter their gas procurement process at this point. For these reasons, CenterPoint Energy's plan to continue to follow its existing supply plan was within a range of reasonable behavior and was prudent.

i. Is Mr. Reed aware of any other utilities' gas procurement processes and/or supply plans?

ii. How many other utilities' gas procurement processes and/or supply plans is Mr. Reed aware of or familiar with?

iii. For each utility's gas procurement processes and/or supply plans of which Mr. Reed has knowledge, please provide the timeframe that that procurement process and/or supply plan was in effect.

iv. For each utility's gas procurement processes and/or supply plans of which Mr. Reed has knowledge, please describe how these utilities did not

alter their gas procurement processes.

v. Please list which other utilities' gas procurement processes Mr. Reed has knowledge of.

n) On page 76, lines 2-5, Mr. Reed states:

The range of prices negotiated had increased substantially from daily spot index levels for the prior day, (Figure 19) [sic.] which was indicative of tight market conditions, but prices were still well within historic ranges, and the distribution of the minimum, maximum and midpoint prices was still relatively symmetrical, indicating that there was not a level of panic in the market.

Please define and explain what is meant by "historical ranges" of prices.

o) Beginning on page 78, line 2, and ending on page 79, line 4, Mr. Reed states:

Daily spot purchases during the 4-day weekend had to be for the same volume each day (*i.e.*, required ratable takes) so, if additional peaking supplies were intended to replace spot purchases, they would have to be used on all four days and this was not reasonable.

Could peaking supplies be run only on the highest load day to reduce the ratable purchase requirement for the 4-day holiday weekend?

p) On page 84, lines 8-11, Mr. Reed states:

Eventually the volume traded, and the number of trades was not significantly different from previous days, but the efficiency of matching buyers to sellers was significantly impaired and the spread in transaction prices was unprecedented.

i. Please describe at what time price discovery began on Feb 12.

ii. Does the run-up in prices throughout the trade date provide a window of time for gas utilities to adjust their previously made index purchases?

q) On page 91, lines 4-9, Mr. Reed states:

The issues in Texas are therefore at the heart of what caused the issues in Minnesota. Natural gas supply to CenterPoint Energy customers did not fail, and the infrastructure serving Minnesota performed as expected. The issue was a domino effect on prices that was linked to the supply

shortages impacted by weather in certain producing regions, with clear origins in the Texas and Oklahoma area.

Please reconcile the timing of natural gas production decreases vs the gas spot market transaction timing for the holiday weekend.

r) On page 103, lines 13-22, Mr. Reed states:

On Friday morning February 12, gas was being negotiated for delivery for February 13, 14, 15 and 16. There were essentially only three choices at this point: 1) buy fixed price gas for the entire holiday weekend (instead of at index prices), with the understanding that marketers were understandably imposing ratable take requirements on these contracts, 2) buy index priced gas with these same take restrictions, and 3) go into the holiday weekend when record demand was projected and choose to be short of supplies for the full four day period and hope to be able to procure over-the-counter spot supplies in the holiday weekend daily market to make up the needed quantities.

Please explain why it is understandable for marketers to impose ratable take requirements for the holiday weekend.

**Response:**

**PUBLIC DOCUMENT - TRADE SECRET DATA HAS BEEN  
EXCISED**

**Contains Trade Secret Information:**

CenterPoint Energy Minnesota Gas has designated information in attachments as highly confidential trade secret. The information meets the definition of trade secret in Minn. Stat. § 13.37, subd. 1(b), as follows: (1) the information was supplied by CenterPoint Energy Minnesota Gas, the affected organization; (2) CenterPoint Energy Minnesota Gas has taken all reasonable efforts to maintain the secrecy of the information; and (3) the protected information contains gas pricing information which derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.

a. Northern Natural Gas provides a System Management Service (“SMS”), which according to its tariff is “a delivery point service providing no-notice firm delivery above or below the Shipper’s daily scheduled amount...” (Sheet 148). According to Northern Natural Gas’s Index of Shippers, CenterPoint Energy, Northern States Power, Minnesota Energy Resources,

Response By: John Reed  
Title: Chairman and Chief Executive Officer  
Department: Concentric Energy Advisors  
Telephone: 508-263-6262

Page 6 of  
11

and Great Plains Natural Gas are all shippers on the pipeline. As stated in CenterPoint Energy's annual demand entitlement filings (see, e.g., Docket No. G008/M-21-523), CenterPoint Energy contracts for SMS service on Northern Natural Gas.

b. i. Gas utilities typically plan their hedge amounts based on normal demand requirements since hedges are typically put in place before the start of the winter and often require some fixed costs. It is typical for gas utilities to plan for both normal winter and peak/design day requirements to ensure the capability to deliver firm supplies under both normal winter and peak/design day conditions.

ii. To clarify, Mr. Reed states that Consumers Energy plans to use more storage on peak day compared to normal winter demand, not that Consumers Energy has more hedging contracts on a peak day. Consumers uses storage that is located near its service area as a physical price hedge. The use of storage in the winter can vary day to day based on needs, as long as the storage withdrawals are within daily, monthly and seasonal tolerances. While Mr. Reed was not involved in Consumers Energy's recent gas supply planning, he assumes that Consumers plans to rely on significantly more storage on a peak day as compared to a normal winter day, so that storage as a percent of total is higher on peak day than it is on a normal winter day.

c. Yes, planning for a level of baseload gas above minimum daily load expectations may be reasonable depending on the circumstances. For example, it may be possible to rely on storage injections for a portion of baseload gas in excess of demand, subject to contractual and tariff limitations on storage injections. If baseload deliveries exceed the quantity of gas that can be injected into storage, it could result in imbalance penalties on the pipeline. In addition, some utilities may contract for baseload supplies above minimum load expectations, with the understanding that this will likely lead to the need to make off-system sales in low demand periods. Mr. Reed believes that this approach may also be reasonable, even when it may lead to losses on off-system sales. This approach, however, requires that the gas supply function be staffed and trained in gas marketing, not just gas procurement, or that the gas marketing function be outsourced, which also involves additional costs.

d. The attached graph "Attachment DOC -39d" demonstrates that Emerson is periodically less liquid than Ventura or Demarc.

e. As described by Witness Toys' testimony, load did not exceed transportation capacity during the event, therefore there was no need to call

Response By: John Reed  
Title: Chairman and Chief Executive Officer  
Department: Concentric Energy Advisors  
Telephone: 508-263-6262



for a widespread curtailment of interruptible customers. As explained in Witness Olsen's testimony, the interruptible curtailments that were called during the event were to resolve local distribution system issues. As discussed in Witness Heer's testimony, the Company did not plan to dispatch the peak shaving facilities as of Friday, February 12, but the Company planned to have the facilities available to be dispatched based on the potential for colder than expected weather. During the event, it was decided to dispatch the peaking facilities in a few instances to provide supplemental supply and pressure to the distribution system.

f. As stated in Mr. Reed's testimony at page 39-40, Consumers Energy's tariff includes a provision to curtail "if at any time the Company cannot provide continuous service to its System Supply Customers because of an inability to procure sufficient gas volumes from its interstate pipeline suppliers or other suppliers, and reliable short term supplies are not available at reasonable and prudent prices."

g. As explained in Mr. Reed's testimony, the trigger price used in his analysis was the interruptible rate for the month (i.e., the commodity cost of gas from the PGA plus the interruptible delivery charge from the tariff). When marginal gas costs rose above this trigger price, interruptible load would be curtailed. See Attachment DOC-39g for the supporting analysis.

h. CenterPoint Energy uses two types of baseload purchases: hedged baseload contracts and (unhedged) FOM baseload contracts. Page 45 lines 1-4 of Mr. Reed's testimony is referring to the amount of winter supplies with stabilized monthly prices, which includes hedged baseload contracts and storage and equals approximately 48% of expected normal winter system sales load. Page 45 line 20 to page 46 line 3 of Mr. Reed's testimony is referring to the amount of winter supplies with implicit hedges against daily price volatility, which includes the aforementioned hedged baseload contracts, storage, plus the FOM baseload contracts, and equals approximately two-thirds of the expected normal winter sales load.

i. As stated on pages 49-50 of Mr. Reed's testimony, Xcel Minnesota is allowed to hedge up to 50% of its annual winter requirements, MERC's strategy is to hedge approximately 60% of expected winter usage, and NW Natural hedges approximately half of purchases for the year, which is consistent with CenterPoint Energy's hedging of 48-53% of winter requirements.

j. Yes, as explained by Witness Toys on page 63, non-ratable daily gas supply purchases over a weekend are sometimes possible, but typically are

priced at a premium.

k. Mr. Reed is aware of several other gas utilities that buy gas at daily spot prices, but the specific exposure level is often not made public; however, there are several sources that provide aggregated information that imply that it is common for utilities to have exposure to daily spot prices in their portfolio. For example, financial disclosures released after the February Market Event as well as ongoing cases in Minnesota and several other states regarding high gas costs resulting from the February Market Event indicate that many gas utilities incurred significant gas supply costs due to exposure to daily index prices during the event. In addition, Schedule 4 of Witness Smead's testimony indicates that in 2020, 40% of commodity deals were at next day index prices. Finally, a survey published by the American Gas Association indicates that of 68 participating gas utilities, approximately two-thirds, purchased at least 26% of their 2018/2019 winter heating season supplies at daily spot prices. (American Gas Association, Energy Analysis, "LDC Supply Portfolio Management During the 2018-2019 Winter Heating Season," Table 7, December 20, 2019)

l. i. Utilities can sometimes sell extra gas that is not needed to serve customers in the "off-system" wholesale market to balance daily positions and mitigate pipeline imbalance penalties. There is some price risk to relying on balancing daily positions using off-system sales since if the utility is long (i.e., has extra gas to sell) because the weather is warmer than expected, it is likely that other market participants are also long for the same reason. As a result, it may be hard to find a buyer and/or the price of the gas may be low. In addition, as discussed on page 101 of Mr. Reed's testimony, a utility could be faced with significant pipeline imbalance fees if a buyer of the gas cannot be found. Finally, as discussed in the response to part c) of this data request, reliance on off-system sales requires the creation or acquisition of gas marketing capabilities that go well beyond the gas procurement function.

ii. While Mr. Reed is generally familiar with the construct of utilities making off-system wholesale sales from his 40 years of experience in the energy industry, he has not undertaken an analysis of instances in which gas utilities have made wholesale sales. In general, however, he is familiar with gas utilities making off-system sales when they have procured supplies with either high take requirements or higher demand charges and the volume of these contracts is beyond what is needed to serve baseload demand levels.

m. i. Yes, Mr. Reed is aware of several other gas utilities' gas procurement processes and/or supply plans.

Response By: John Reed  
Title: Chairman and Chief Executive Officer  
Department: Concentric Energy Advisors  
Telephone: 508-263-6262

ii. Mr. Reed is aware of at least eleven other gas utilities' gas procurement processes and/or supply plans as cited in his testimony, plus he is generally aware of several additional utility gas procurement processes and/or supply plans from his 40 years of experience in the energy industry.

iii. The gas procurement plans/integrated resource plans cited in Mr. Reed's testimony are generally dated from 2018 through 2021.

iv. Mr. Reed's review of trade press during and after the event did not provide any evidence that market participants pivoted away from purchasing swing or spot gas at daily index prices. Financial disclosures indicate that many gas purchasers, including gas utilities, generators, and marketers had significant exposure to daily index prices during the event, which demonstrates that these participants did not significantly alter their plans to purchase gas at daily index prices.

v. As cited in Mr. Reed's testimony, he is aware of gas procurement processes and/or supply plans of NSTAR Gas Company, Public Service Company of Colorado, Consumers Energy, Consolidated Edison Company of New York, NW Natural, Black Hills Colorado Gas, Puget Sound Energy, Duke Energy Ohio, New York State Electric & Gas/Rochester Gas and Electric, Xcel Energy, and Minnesota Energy Resources. In addition, he is generally aware of several other utility gas procurement processes and/or supply plans from his 40 years of experience in the energy industry.

n. Historical ranges of prices refer to the range of midpoint prices at Northern-Demarc and Northern-Ventura observed over the long term history. In this case, Mr. Reed used data starting in January 2003 as shown in Figures 11 and 12 in Mr. Reed's testimony.

o. Hypothetically, if the decision to attempt to plan to use peaking resources to reduce daily spot purchases had been developed before the portfolio was finalized for the four day weekend, some degree of peak shaving could be used to reduce the daily spot purchases, However, that strategy would have created risk for CenterPoint Energy by leaving it with less of an ability to respond to higher than expected demand or reduced supply availability over the four day period.

CenterPoint Energy had to plan to meet load requirements on each of the four days over the holiday weekend. As described in the Direct Testimony of Mr. Heer, under CenterPoint Energy's Gas Procurement Plan, peak shaving resources are only planned to be dispatched when forecasted load exceeds available pipeline capacity. Centerpoint Energy had sufficient

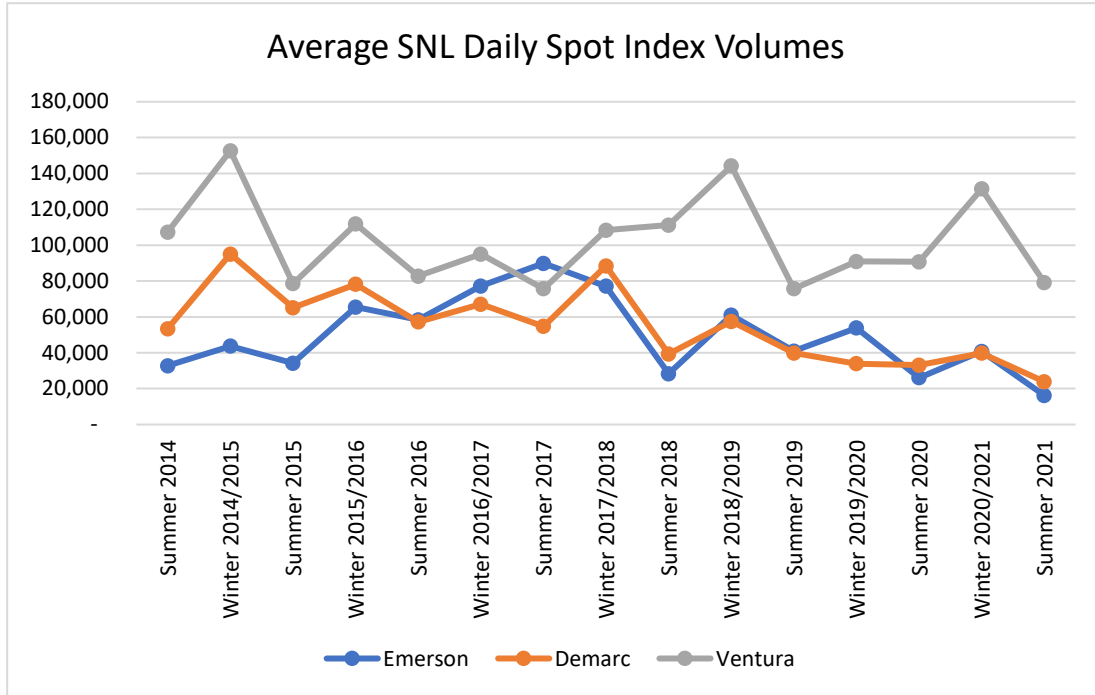
pipeline capacity available for the highest forecasted loads. CenterPoint Energy's peak shaving resources have not been designed or planned to address pricing events and are not situated for that purpose. Therefore, utilizing the strategy posed in the question would have added unacceptable reliability risks and may not have led to a lower cost for customers.

p.i. Fixed price trades began at approximately 9AM on February 12, and the final index price was not known until close of business on Friday.

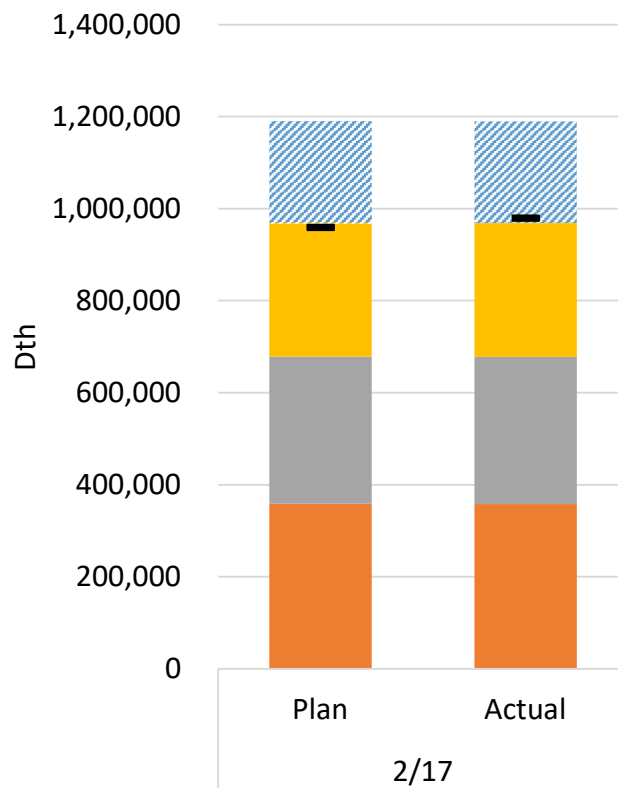
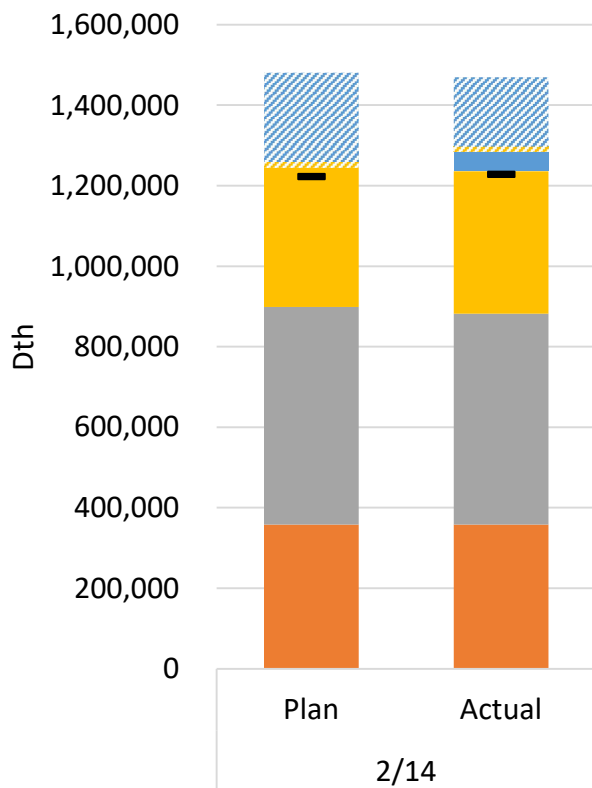
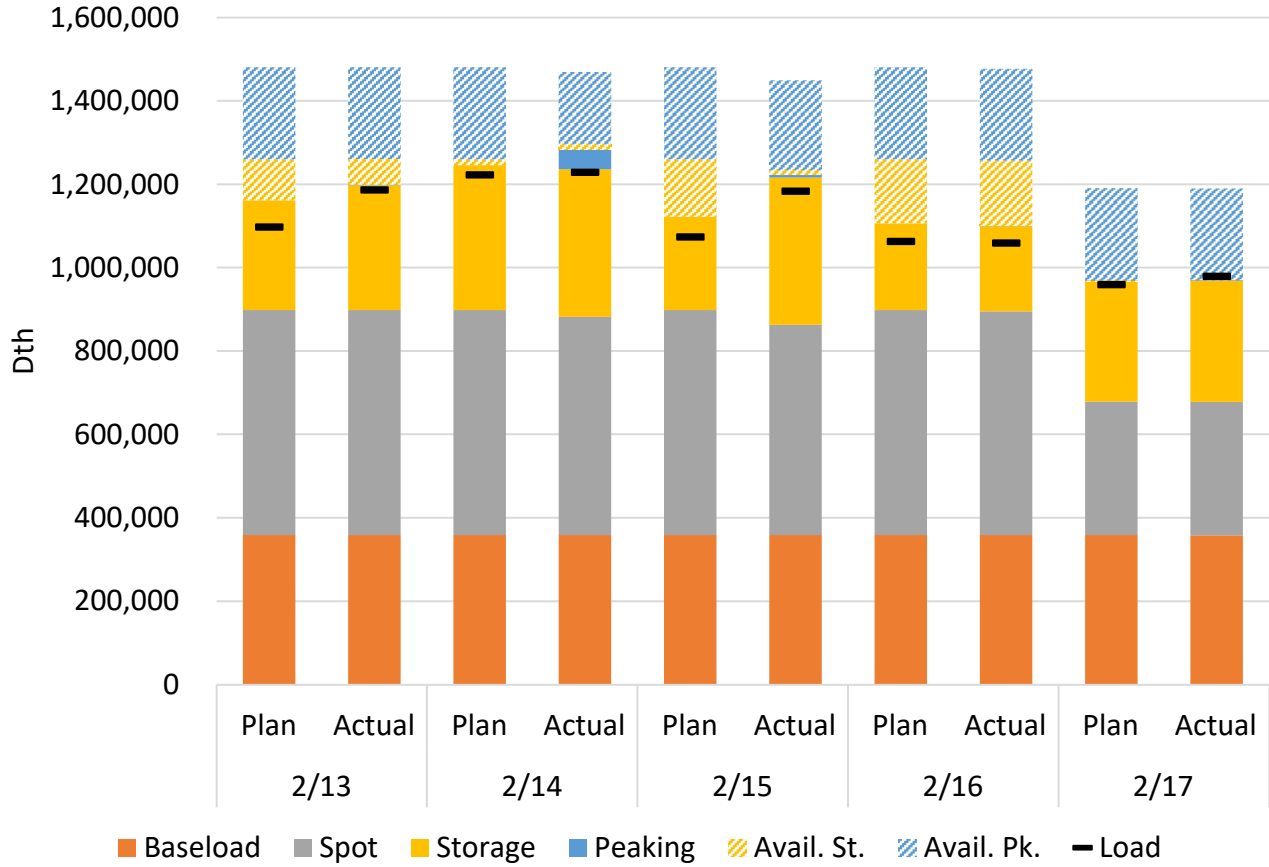
ii. No, not that Mr. Reed is aware of. Once index purchases are made, previously made index purchases cannot be adjusted without the gas seller agreeing to modify the existing agreement.

q. While the most significant production declines in Texas occurred from February 13-17 as noted in Mr. Reed's testimony, production declines began sooner. For example, as shown in Schedule 5 of Witness Smead's testimony, notable gas production declines began by Thursday, February 11.

r. As described in Mr. Reed's testimony (page 52), Witness Toys' testimony (pages 7, 18) and Witness Smead's testimony (pages 18-19), it is standard practice for marketers to impose ratable take requirements over weekends because natural gas does not trade over the weekend. When a marketer makes a commitment to deliver gas over a weekend, it needs to match the commitment with a purchase of gas for the same period and, due to industry practice, this purchase is also done at a ratable take. The lower level of market liquidity outside of standard trading windows makes arrangements other than ratable take agreements much more difficult to manage.



**CNP Daily Supply - Planned vs. Actual Volumes**



**CNP Daily Supply - Planned vs. Actual Volumes<sup>1,2</sup>**

<b>Plan</b>					
	2/13	2/14	2/15	2/16	2/17
Load	1,098,099	1,223,099	1,074,099	1,063,099	959,549
Baseload	358,436	358,436	358,436	358,436	358,436
Spot	540,000	540,000	540,000	540,000	320,000
Storage	263,000	347,100	223,000	208,000	289,100
Peaking	0	0	0	0	0
Total Supply	1,161,436	1,245,536	1,121,436	1,106,436	967,536
Storage MDWQ	361,270	361,270	361,270	361,270	291,270
Avail. Storage	98,270	14,170	138,270	153,270	2,170
Peaking MDWQ	221,000	221,000	221,000	221,000	221,000
Avail. Peaking	221,000	221,000	221,000	221,000	221,000

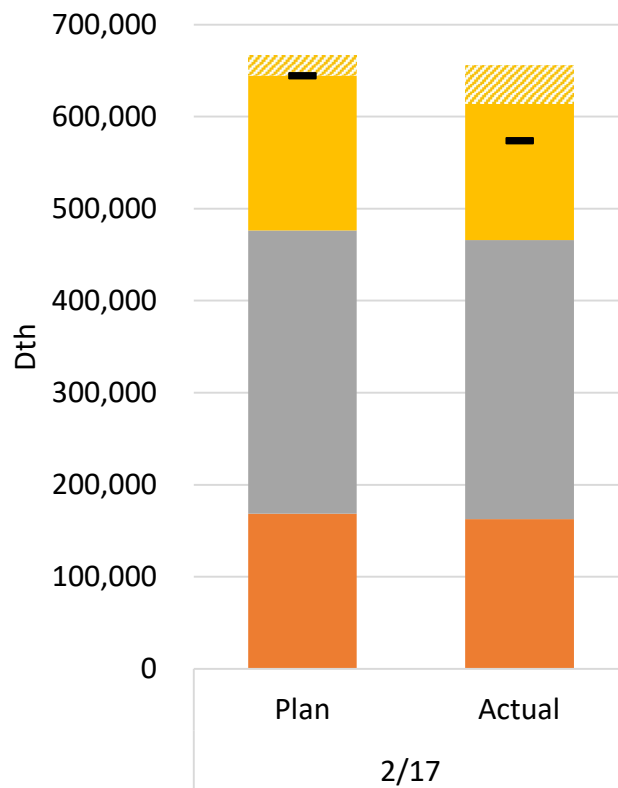
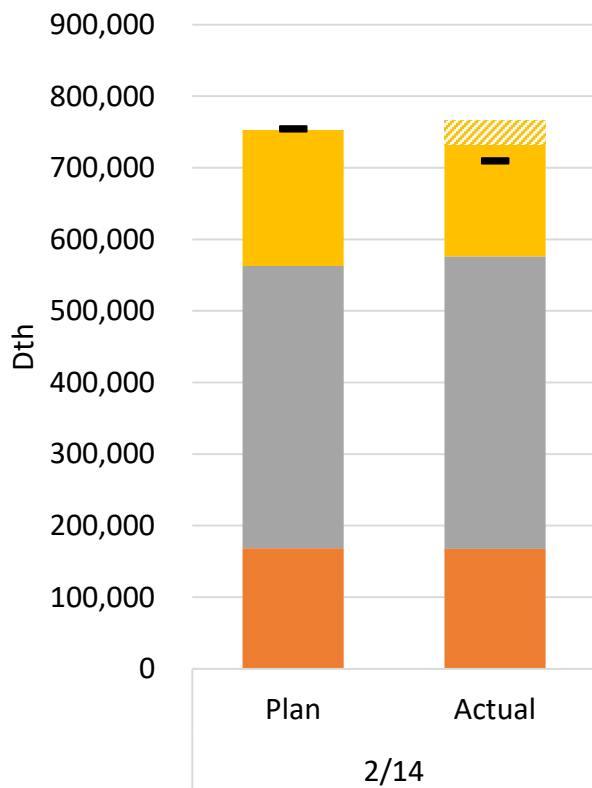
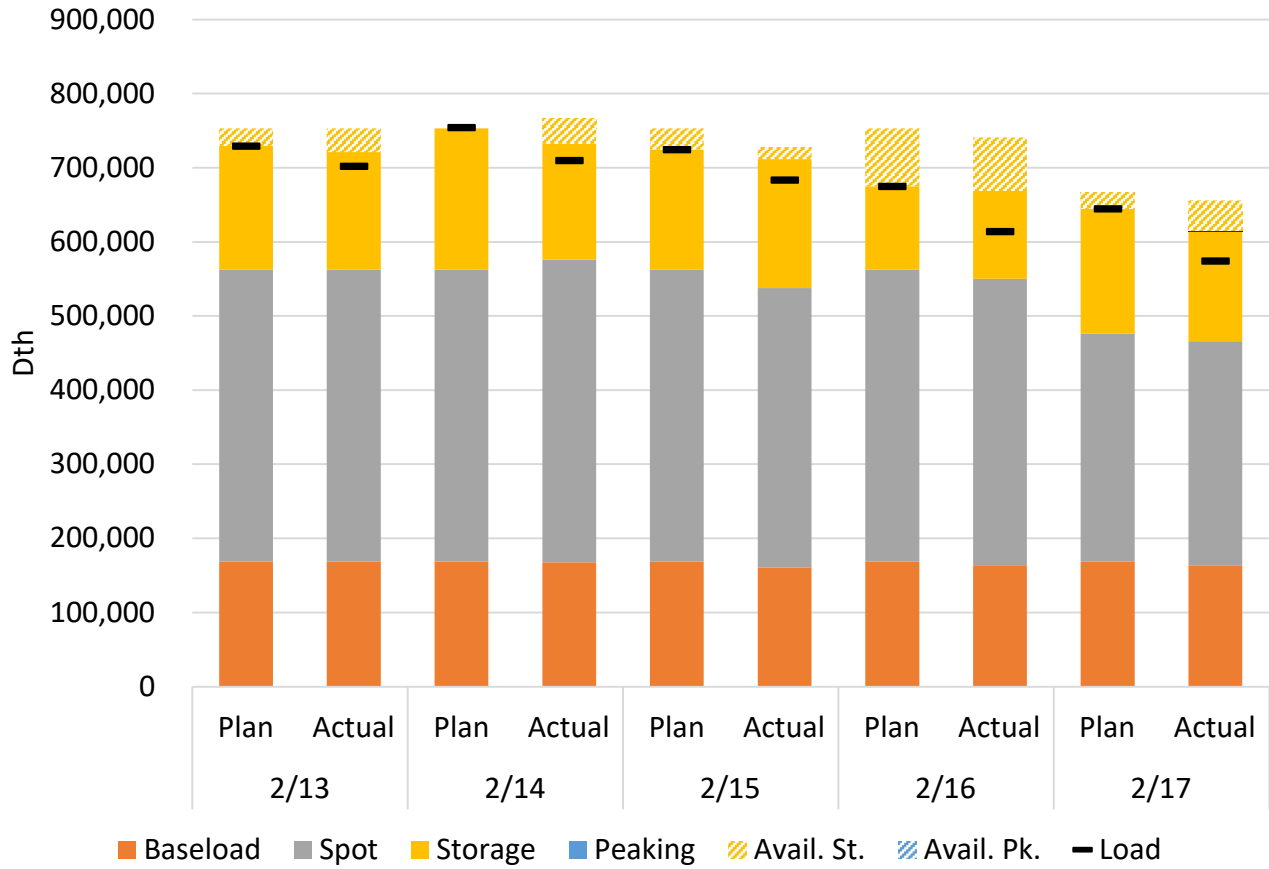
<b>Actuals</b>					
	2/13	2/14	2/15	2/16	2/17
Load	1,187,038	1,228,842	1,183,846	1,059,449	979,923
Baseload	358,436	358,436	358,436	358,436	357,849
Spot	540,000	523,339	504,404	536,420	319,775
Storage	299,270	354,270	353,270	204,507	291,270
Peaking	1,626	48,612	6,358	433	428
Total Supply	1,199,332	1,284,657	1,222,468	1,099,796	969,322
Storage MDWQ	361,270	366,270	365,270	361,270	291,270
Avail. Storage	62,000	12,000	12,000	156,763	0
Peaking MDWQ	221,000	221,000	221,000	221,000	221,000
Avail. Peaking	219,374	172,388	214,642	220,567	220,572

<b>Delta</b>					
	2/13	2/14	2/15	2/16	2/17
Load	88,939	5,743	109,747	(3,650)	20,374
Baseload	0	0	0	0	(587)
Spot	0	(16,661)	(35,596)	(3,580)	(225)
Storage	36,270	7,170	130,270	(3,493)	2,170
Peaking	1,626	48,612	6,358	433	428
Total Supply	37,896	39,121	101,032	(6,640)	1,786
Storage MDWQ	0	5,000	4,000	0	0
Avail. Storage	(36,270)	(2,170)	(126,270)	3,493	(2,170)
Peaking MDWQ	0	0	0	0	0
Avail. Peaking	(1,626)	(48,612)	(6,358)	(433)	(428)

1/Exhibit JTT-D, Schedule 7 - Plan v Actual spreadsheet

2/Exhibit JTT-D Schedule 4 Storage Inventory Spreadsheet

**Xcel Daily Supply - Planned vs. Actual Volumes**





**Xcel Daily Supply - Planned vs. Actual Volumes<sup>1,2,3</sup>**

<b>Plan</b>					
	2/13	2/14	2/15	2/16	2/17
Load <sup>4</sup>	729,191	754,477	724,738	674,779	644,628
Baseload	168,600	168,600	168,600	168,600	168,600
Spot	394,127	394,127	394,127	394,127	307,549
Storage <sup>5</sup>	166,464	190,213	162,011	112,052	168,479
Peaking	0	0	0	0	0
Total Supply	729,191	752,940	724,738	674,779	644,628
Storage MDWQ	190,213	190,213	190,213	190,213	190,213
Avail. Storage	23,749	0	28,202	78,161	21,734
Peaking MDWQ	0	0	0	0	0
Avail. Peaking	0	0	0	0	0

<b>Actuals</b>					
	2/13	2/14	2/15	2/16	2/17
Load	702,070	710,041	683,676	614,091	574,135
Baseload	168,600	167,572	160,677	163,631	162,780
Spot	394,127	408,569	377,085	386,679	302,953
Storage	158,496	156,054	173,921	118,496	148,895
Peaking	0	0	0	0	0
Total Supply	721,223	732,195	711,683	668,806	614,628
Storage MDWQ	190,213	190,213	190,213	190,213	190,213
Avail. Storage	31,717	34,159	16,292	71,717	41,318
Peaking MDWQ	0	0	0	0	0
Avail. Peaking	0	0	0	0	0

<b>Delta</b>					
	2/13	2/14	2/15	2/16	2/17
Load	(27,121)	(44,436)	(41,062)	(60,688)	(70,493)
Baseload	0	(1,028)	(7,923)	(4,969)	(5,820)
Spot	0	14,442	(17,042)	(7,448)	(4,596)
Storage	(7,968)	(34,159)	11,910	6,444	(19,584)
Peaking	0	0	0	0	0
Total Supply	(7,968)	(20,745)	(13,055)	(5,973)	(30,000)
Storage MDWQ	0	0	0	0	0
Avail. Storage	7,968	34,159	(11,910)	(6,444)	19,584
Peaking MDWQ	0	0	0	0	0
Avail. Peaking	0	0	0	0	0

1/RLD-1, Schedule 2, p.26 Table 3 and associated workpapers

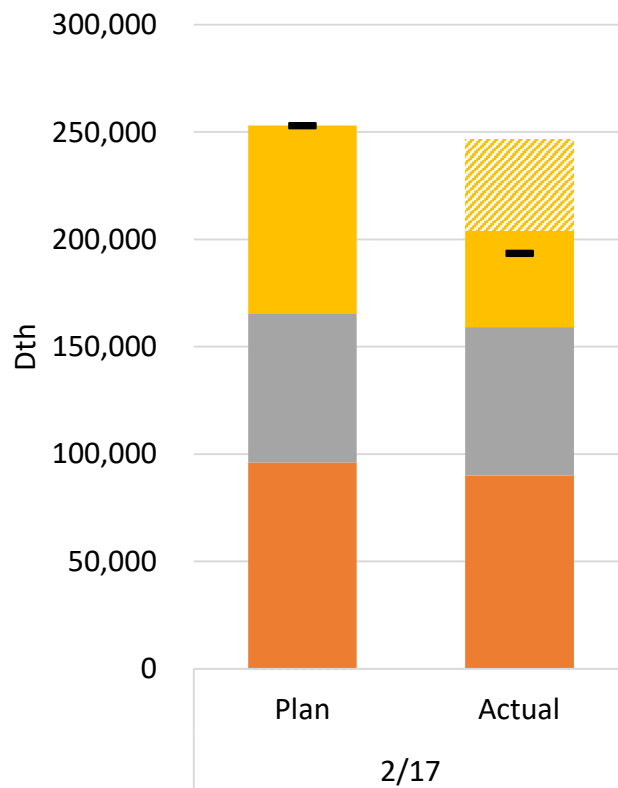
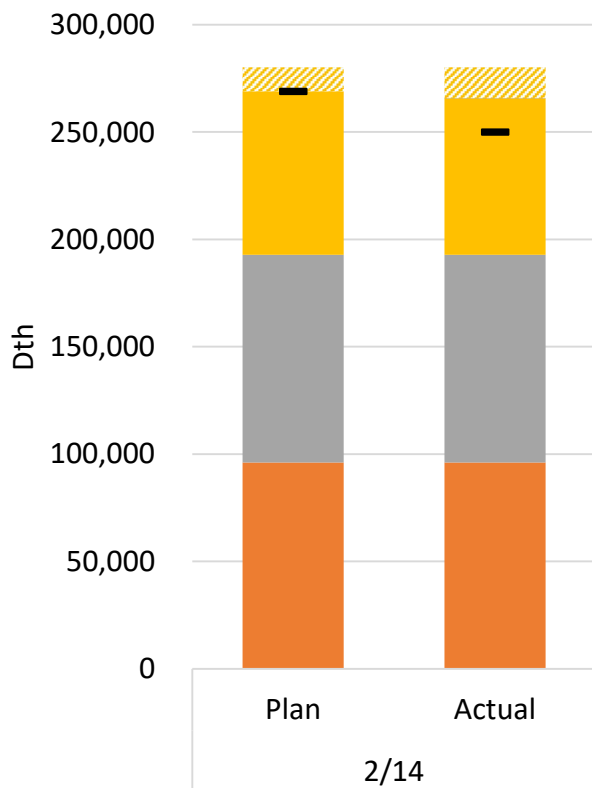
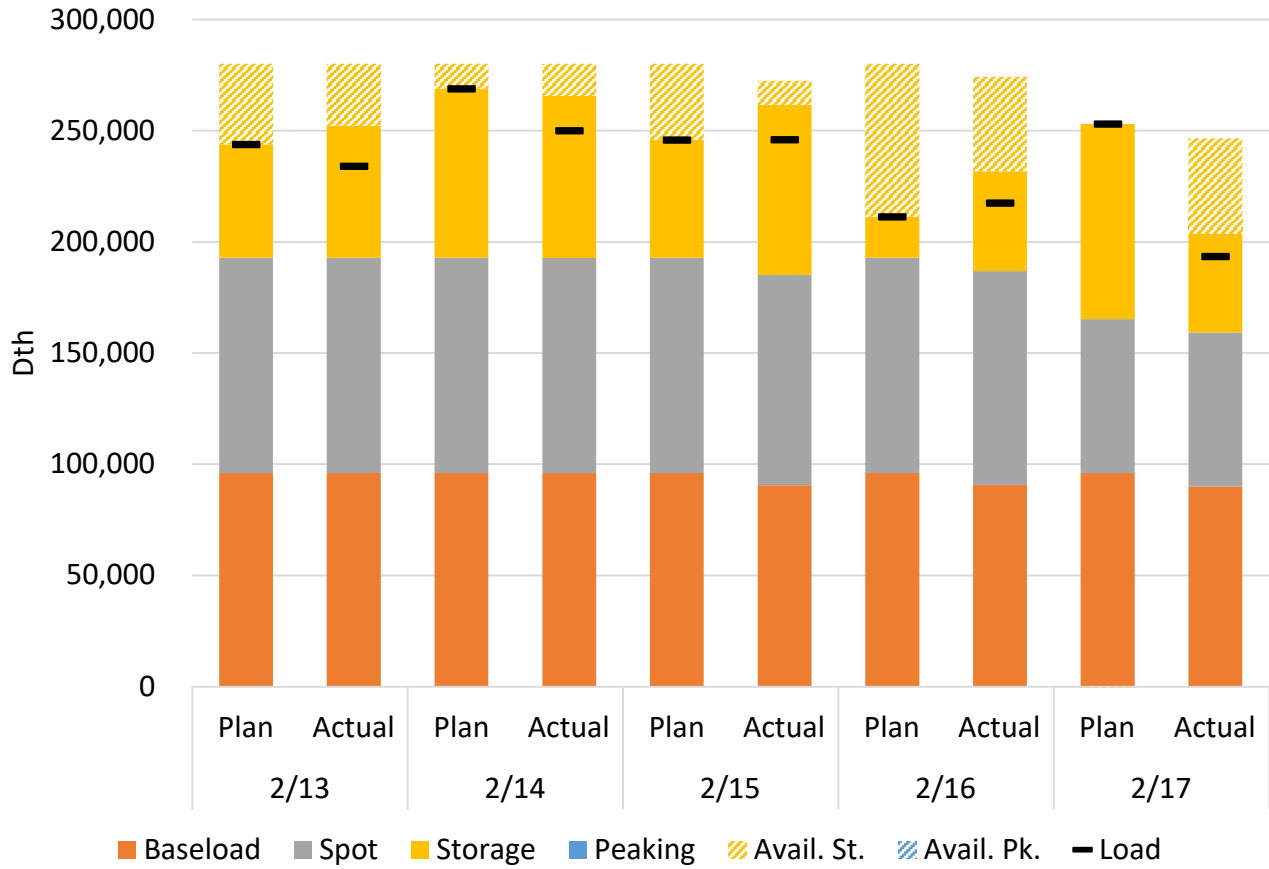
2/Levine Direct Schedule 2

3/DOC IR 9

4/Forecasted load does not include estimated curtailment volumes

5/Planned storage = load forecast less baseload and spot supply

**MERC-NNG Daily Supply - Planned vs. Actual Volumes**



**MERC-NNG Daily Supply - Planned vs. Actual Volumes<sup>1,2,3</sup>**

<b>Plan</b>					
	2/13	2/14	2/15	2/16	2/17
Load	243,896	268,886	245,816	211,234	252,974
Baseload	96,060	96,060	96,060	96,060	96,060
Spot <sup>4</sup>	96,761	96,761	96,761	96,761	69,245
Storage	51,075	76,065	52,995	18,413	87,669
Peaking	0	0	0	0	0
Total Supply	243,896	268,886	245,816	211,234	252,974
Storage MDWQ	87,341	87,341	87,341	87,341	87,341
Avail. Storage	36,266	11,276	34,346	68,928	(328)
Peaking MDWQ	0	0	0	0	0
Avail. Peaking	0	0	0	0	0

<b>Actuals</b>					
	2/13	2/14	2/15	2/16	2/17
Load	234,044	249,978	246,044	217,424	193,475
Baseload	96,060	96,033	90,533	90,645	89,931
Spot <sup>4</sup>	96,761	96,761	94,567	96,262	69,245
Storage	59,341	72,846	76,545	44,846	44,846
Peaking	0	0	0	0	0
Total Supply	252,162	265,640	261,645	231,753	204,022
Storage MDWQ	87,341	87,341	87,341	87,341	87,341
Avail. Storage	28,000	14,495	10,796	42,495	42,495
Peaking MDWQ	0	0	0	0	0
Avail. Peaking	0	0	0	0	0

<b>Delta</b>					
	2/13	2/14	2/15	2/16	2/17
Load	(9,852)	(18,908)	228	6,190	(59,499)
Baseload	0	(27)	(5,527)	(5,415)	(6,129)
Spot <sup>4</sup>	0	0	(2,194)	(499)	0
Storage	8,266	(3,219)	23,550	26,433	(42,823)
Peaking	0	0	0	0	0
Total Supply	8,266	(3,246)	15,829	20,519	(48,952)
Storage MDWQ	0	0	0	0	0
Avail. Storage	(8,266)	3,219	(23,550)	(26,433)	42,823
Peaking MDWQ	0	0	0	0	0
Avail. Peaking	0	0	0	0	0

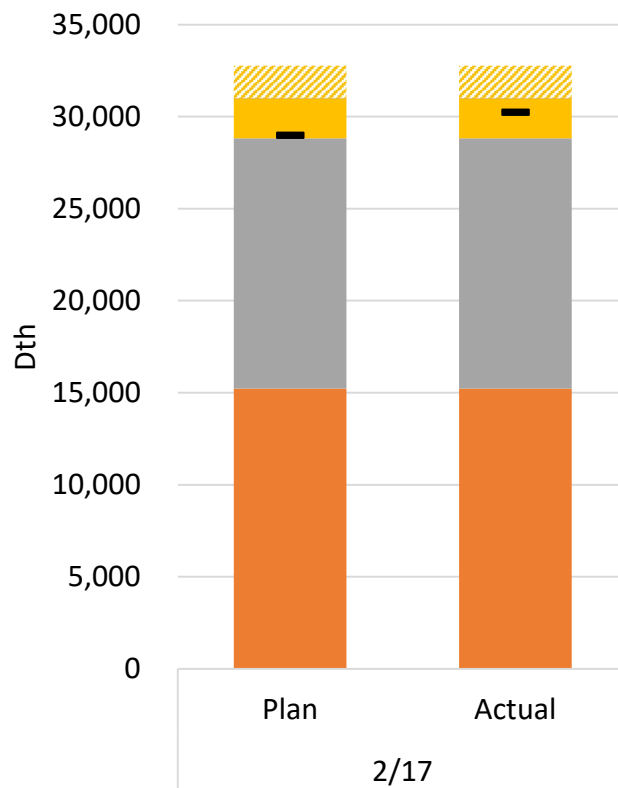
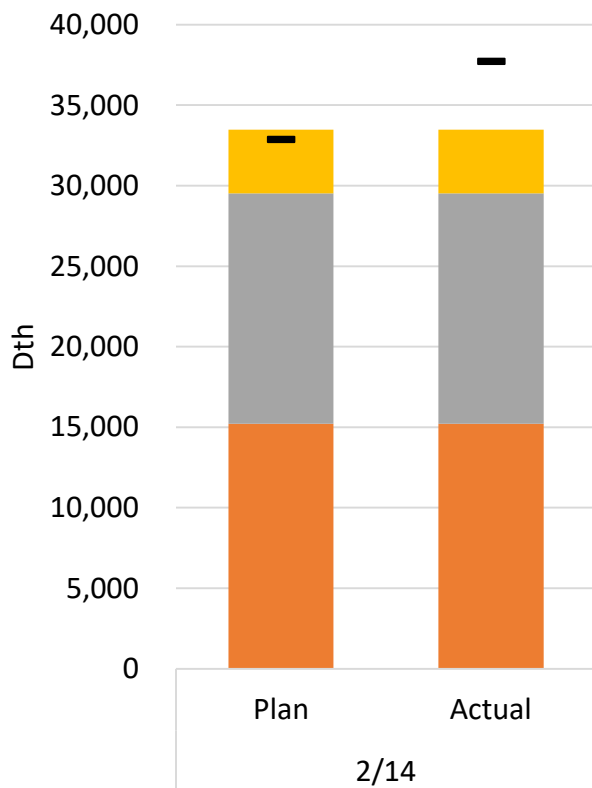
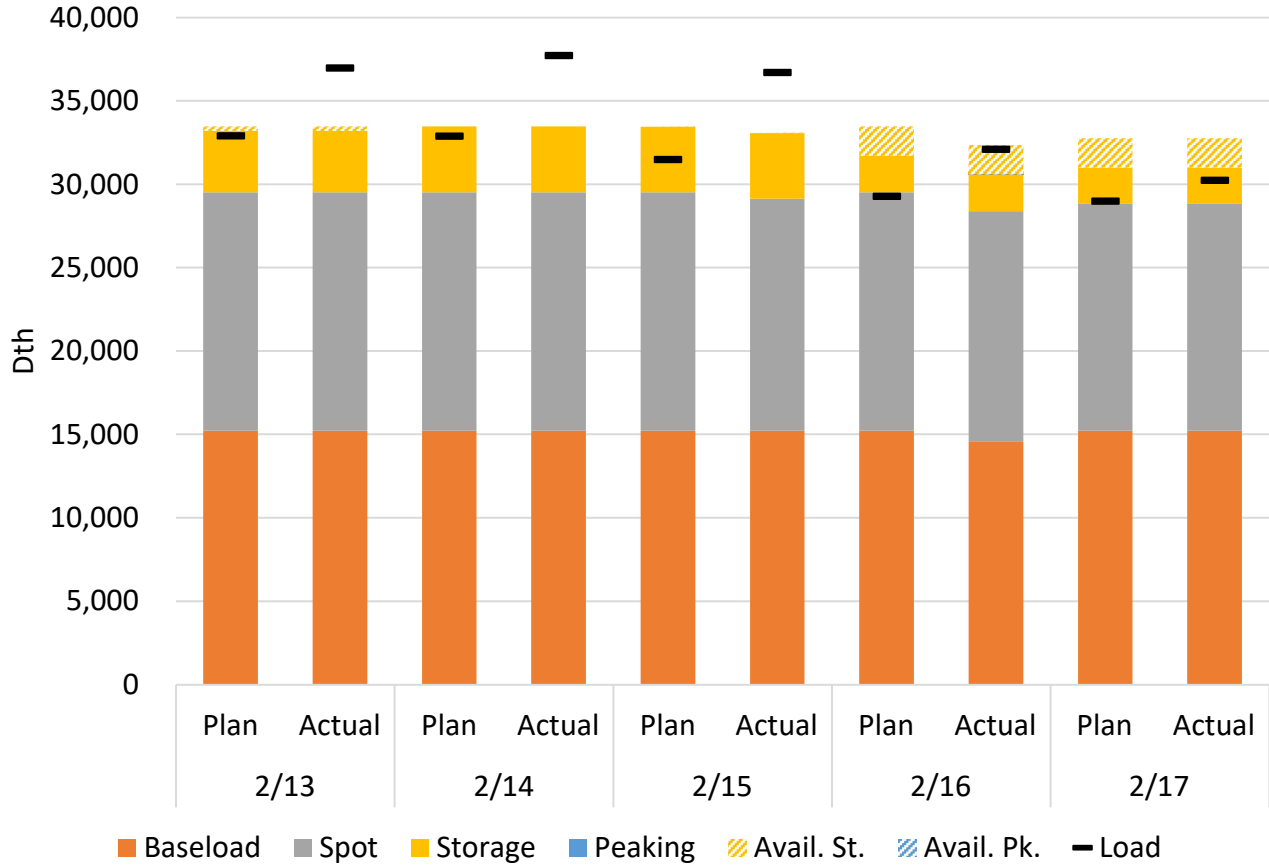
1/Exhibit SRM-D, Schedule 7

2/TSC Table 3 and associated workpapers

3/Quantities shown on supply basis

4/Spot includes Physical Forward Option volumes

**GP Daily Supply - Planned vs. Actual Volumes**



**GP Daily Supply - Planned vs. Actual Volumes**<sup>1,2,3,4</sup>

<b>Plan</b>					
	2/13	2/14	2/15	2/16	2/17
Load	32,907	32,890	31,486	29,278	28,996
Baseload	15,223	15,223	15,223	15,223	15,223
Spot	14,300	14,300	14,300	14,300	13,600
Storage	3,674	3,944	3,929	2,174	2,174
Peaking	0	0	0	0	0
Total Supply	33,197	33,467	33,452	31,697	30,997
Storage MDWQ	3,944	3,944	3,944	3,944	3,944
Avail. Storage	270	0	15	1,770	1,770
Peaking MDWQ	0	0	0	0	0
Avail. Peaking	0	0	0	0	0

<b>Actuals</b>					
	2/13	2/14	2/15	2/16	2/17
Load	36,990	37,735	36,712	32,102	30,249
Baseload	15,223	15,223	15,223	14,593	15,223
Spot	14,300	14,300	13,918	13,799	13,600
Storage	3,674	3,944	3,929	2,174	2,174
Peaking	0	0	0	0	0
Total Supply	33,197	33,467	33,070	30,566	30,997
Storage MDWQ	3,944	3,944	3,944	3,944	3,944
Avail. Storage	270	0	15	1,770	1,770
Peaking MDWQ	0	0	0	0	0
Avail. Peaking	0	0	0	0	0

<b>Delta</b>					
	2/13	2/14	2/15	2/16	2/17
Load	4,083	4,845	5,226	2,824	1,253
Baseload	0	0	0	(630)	0
Spot	0	0	(382)	(501)	0
Storage	0	0	0	0	0
Peaking	0	0	0	0	0
Total Supply	0	0	(382)	(1,131)	0
Storage MDWQ	0	0	0	0	0
Avail. Storage	0	0	0	0	0
Peaking MDWQ	0	0	0	0	0
Avail. Peaking	0	0	0	0	0

1/Response DOC No. 4 Attachment B1

2/Response DOC No. 7 Attachment A1, Response DOC No. 7 Attachment A2

3/Response DOC No. 8

4/Response DOC No. 9 Attachment B

TLP:WHITE



U.S. DEPARTMENT OF  
**ENERGY**

Office of Cybersecurity, Energy  
Security, and Emergency Response

## Extreme Cold & Winter Weather | Update #1

**REPORT TIME & DATE:** 12:00 PM EST | Tuesday, February 16, 2021

**REPORT DISTRIBUTION:** Public

### EXECUTIVE SUMMARY

An arctic air mass is impacting the Central United States, bringing snow, ice, and extreme cold temperatures from the Canadian border as far south as Texas, causing record winter power demand and impacting power generation, including natural gas and wind facilities. The Electric Reliability Council of Texas (ERCOT), the Southwest Power Pool (SPP), and the Midcontinent Independent System Operator (MISO) have implemented controlled power outages across portions of their systems to manage load. The arctic air mass is expected to continue impacting the region through the remainder of the week and additional winter weather is forecast in Texas on Wednesday.

#### Electricity Sector Summary

- As of 10:30 AM EST, February 16, ERCOT and SPP have declared Energy Emergency Alert (EEA) Level 3 due to operating reserves falling below the required minimum as high demands related to ongoing severe winter weather event exceeded available generation capacity. Generation resources are strained due to cold weather tripping units, natural gas supply curtailments, and wind power generation outages. ERCOT, SPP, and MISO have instructed utilities to shed firm load and implement controlled outages. Controlled outages could continue throughout the day.
  - As of 10:45 AM EST, there were approximately 4.89 million power outages across Texas, Louisiana, and Oklahoma, with 4.5 million outages in Texas.
  - Although a substantial number of customers are out of power due to the controlled power outages, some customers are without power in Texas and Louisiana due to damaged infrastructure from the ongoing winter weather.

TLP:WHITE

### Natural Gas Sector Summary

- As of February 16, gas production in the U.S. South Central Region was down approximately 6.3 billion cubic feet per day (Bcf/d) due to wellhead freeze-offs and natural gas processing plant outages caused by extreme cold. These outages represent approximately 30% of U.S. South Central output and approximately 7% of total U.S. gas production. Although production losses due to freeze-offs are temporary, output takes time to return to normal levels and the cumulative reduction over several days could be substantial.
- Gas suppliers are responding to high demands and gas production outages by withdrawing gas from storage. As of February 16, gas storage draws in the U.S. South Central region are up approximately 10 Bcf/d (100%) compared to pre-event withdrawals.

### Petroleum Sector Summary

- As of February 16, approximately 3.6 million bcf/d of refining capacity was reported offline in the U.S. Gulf Coast region as refiners have shut down refineries either due to the cold weather directly or due to power outages. These refinery outages account for approximately 36% of total U.S. Gulf Coast refining capacity and approximately 19% of total U.S. refining capacity.

## DOE ACTIONS

- DOE is coordinating with industry, interagency, and state partners to provide situational awareness and support restoration efforts.
- DOE is holding daily calls with electricity and oil and natural gas partners and is in regular contact with the North American Electric Reliability Corporation.
- The DOE Power Marketing Administrations are working with customers, reliability coordinators, and balancing authorities to support reliability within their service territories.
- Following a formal petition from ERCOT on February 14, the Acting Secretary of Energy issued an emergency order pursuant to section 202(c) of the Federal Power Act to authorize the dispatch of additional generation units in the ERCOT region to help ensure reliability. This allows ERCOT to dispatch generation units they deem necessary to meet electricity demand from February 14 through February 19, 2021 even if they are in exceedance of limits for sulfur dioxide, nitrogen oxide, mercury, and carbon monoxide emissions, as well as wastewater release limits. The order and additional information can found at: <https://www.energy.gov/oe/downloads/federal-power-act-section-202c-ercot-february-2021>.

**ELECTRICITY SECTOR**

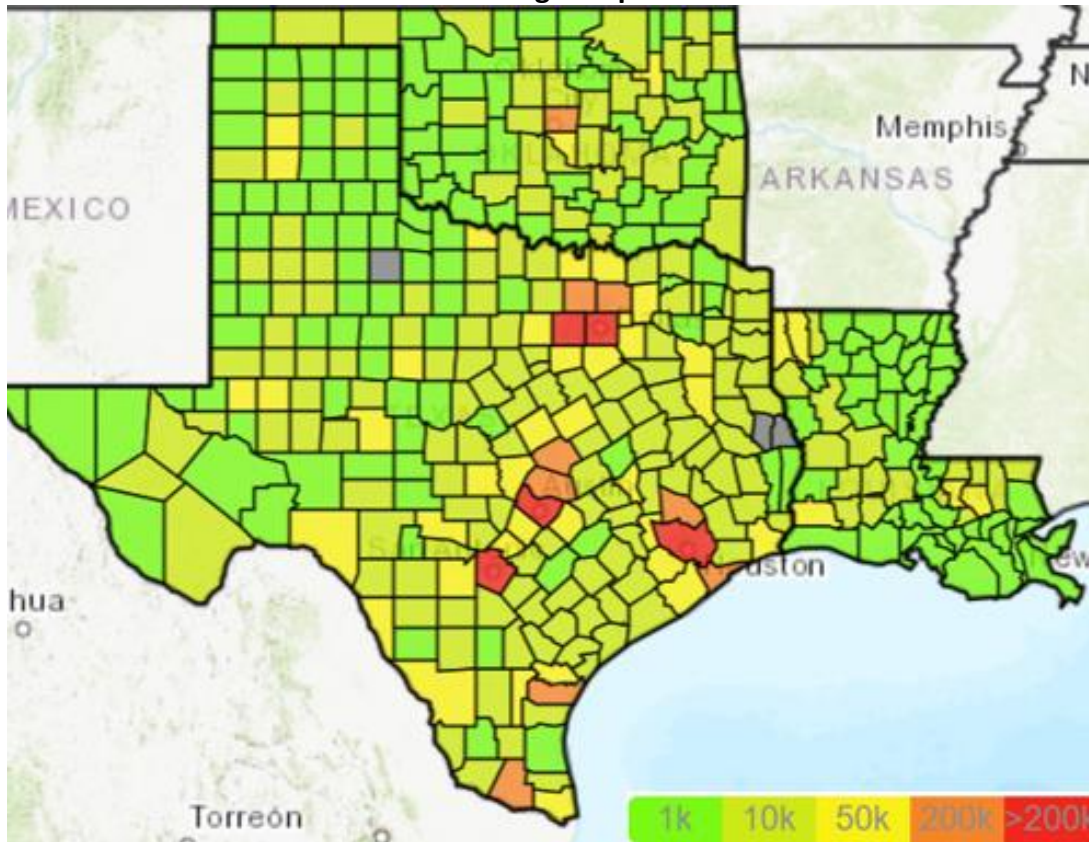
**POWER OUTAGES**

- As of 10:45 AM EST, there were approximately 4.89 million power outages across Texas, Louisiana, and Oklahoma, with 4.5 million outages in Texas.
- Oregon has also experienced a severe winter storm causing widespread outages, totaling 223,098 as of 10:45 AM EST.

Extreme Cold Customer Power Outages as of 10:45 AM EST 02/16/2021		
State	Current Outages	% of State Without Power
Texas*	4,511,638	27%
Louisiana	164,525	2%
Oklahoma	211,496	<1%
<b>Total</b>	<b>4,887,659</b>	<b>-</b>

\*Some outages due to winter storms, rather than controlled power outages.

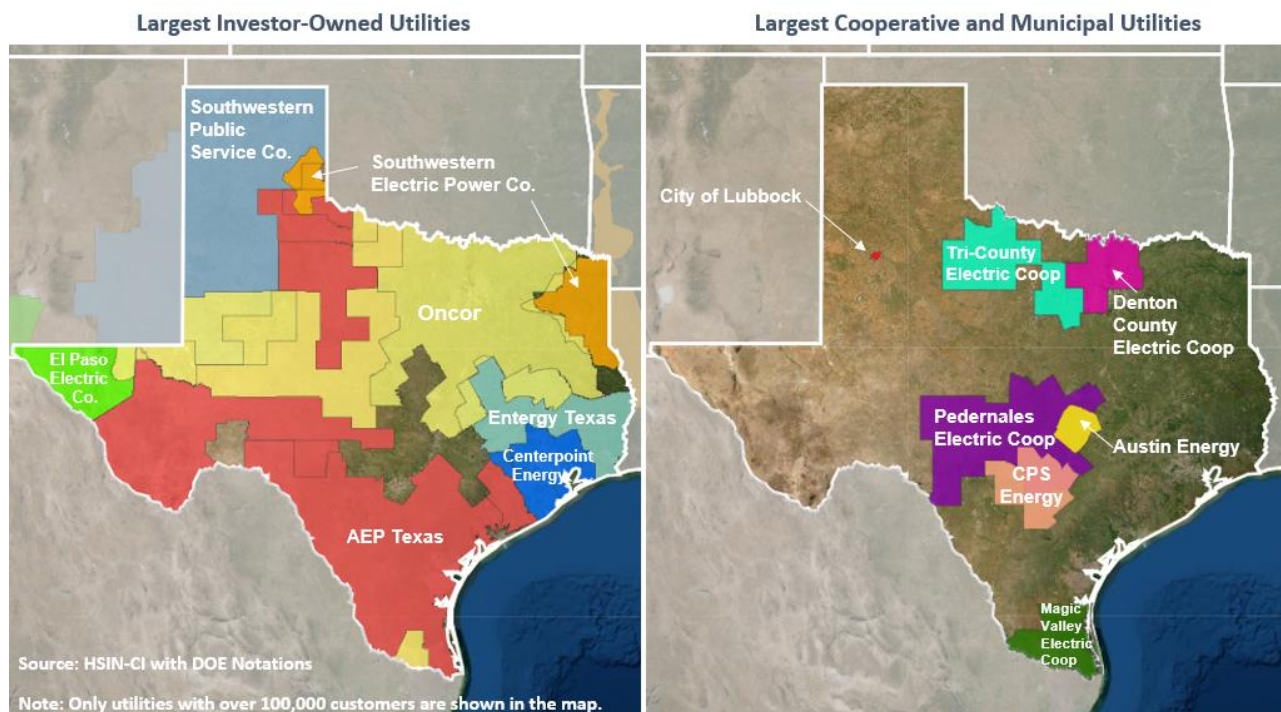
**Outage Map**



**ELECTRICITY OVERVIEW**



- High demands related to ongoing extreme cold winter weather in the ERCOT, SPP, and MISO territories exceeded available generation capacity on February 15. At 2:25 AM EST on February 15, ERCOT declared an EEA 3 and instructed utilities across ERCOT’s territory to shed firm load and implement controlled outages. MISO also instructed Entergy Texas to shed firm load in MISO’s Western (Texas) Load Pocket. SPP declared EEA 3 at 7:15 AM EST on February 16, signaling that operating reserves are below the required minimum. SPP implemented a load shed and cut electricity exports.
- In addition to high-demand, the cold temperatures have caused natural gas well “freeze-offs,” curtailing the availability of natural gas in some locations. Additionally, an ice storm late last week and continuing winter weather have limited wind generation due to icing on the turbines. Solar generation has also been limited due to heavy cloud cover. Weather impacts have also been reported at other generation facilities.
- Although a substantial number of customers are out of power due to the controlled power outages, some of the customers are without power in Texas and Louisiana due to damaged infrastructure related to the winter weather.



## REGIONAL DETAILS

## ERCOT

## OVERVIEW

- At 2:25 AM EST on February 15, ERCOT declared an EEA 3 and instructed utilities within ERCOT's service area in Texas to shed firm load and implement controlled outages due to generation inadequacy.
  - Prior to declaring an EEA 3 and implementing load shed, ERCOT declared an EEA 1 at 1:17 AM EST and an EEA 2 at 2:12 AM EST due to the loss of several generation units.
- ERCOT anticipates generators to return to service and renewable output to increase on February 16. ERCOT anticipates that customer outages will decrease throughout the day.
- Reduced supply of natural gas due to well "freeze offs," lower-than-normal solar generation due to heavy cloud cover, and limited wind generation due to icing on the turbines have further constrained electricity generation.
- On the evening of February 14, the Acting Secretary of Energy issued an emergency order pursuant to section 202(c) of the Federal Power Act to authorize the dispatch of additional generation units in the ERCOT region to help ensure reliability. This allows ERCOT to dispatch generation units they deem necessary to meet electricity demand from February 14 through February 19, 2021 even if they are in exceedance of limits for sulfur dioxide, nitrogen oxide, mercury, and carbon monoxide emissions, as well as wastewater release limits.
- ERCOT is the independent system operator for the state of Texas, serving about 26 million people and about 90% of the state's electric load. ERCOT operates largely independently from the rest of country and is not subject to federal oversight.

## DEMAND FORECAST

- The current-day forecast peak is 58,266 MW as of 9:15 AM EST.
- The day-ahead forecast peak for February 17 is 75,056 MW, even higher than the forecast peak on February 16.



**MISO****OVERVIEW**

- Due to extreme winter weather and temperature, generation and transmission failures have occurred in the Entergy Texas Western Load Pocket of MISO. To alleviate transmission overloads, interruptible load was shed.
- MISO declared a Maximum Generation Emergency Event Step 2c effective February 15 at 6 PM EST through February 15 at 10 PM EST for the South Region. Local balancing authorities are asked to issue public appeals to reduce demand and should prepare to shed load due to forced generation outages and extreme cold temperatures. North/Central Regions are in Maximum Generation 1b.
- Utilities in additional states began shedding load on the evening of February 15.
- MISO's Cold Weather Alert is in effect through February 17. Temperatures are expected to be as low as 0 degrees F and operators should expect to be contacted about fuel restrictions.
- MISO is the independent system operator and regional transmission organization for much of the Midwest, with 15 U.S. member states, including a small portion of Texas not covered by ERCOT.

**SPP****OVERVIEW**

- SPP declared an EEA 3 effective at 6:15 AM EST on February 16 for the entire balancing authority area, which was followed by load-shed.
- SPP is forecasting a morning peak of above 44.6 GW around 10 AM EST on February 16, higher than the peak load of 43.661 MW on February 15.
- SPP had previously declared an EEA Level 2 beginning at 8:22 AM EST on February 15, an EEA Level 1 at 6 AM EST on February 15, and a period of conservative operations at 1 AM EST on February 9.
- SPP experienced some generator outages on the morning of February 15 that contributed to local loading issues in addition to reducing supply needed to serve load.
- Electricity prices within the SPP service areas are at the top of the range.
- SPP has 14 member states in the central and western U.S. and performs contract reliability coordination services in three additional states.

## NATURAL GAS SECTOR

### NATURAL GAS SUMMARY

Extreme cold temperatures have led to sharp increases in gas demands for home heating and electricity generation across much of the Central U.S. At the same time, the cold has led to supply disruptions caused by well freeze-offs and natural gas processing plant outages in several producing areas in the U.S. South Central region (TX, OK, KS, LA, AR, MS, AL), which typically accounts for approximately 20-25% of total U.S. gas production.

### NATURAL GAS PRODUCTION

- Wellhead freeze-offs have caused producers to cut back natural gas production in the South Central United States, including in the Permian Basin in Texas and New Mexico, the Cana Woodford in Oklahoma, and the Denver-Julesburg in Colorado. Over the past weekend the Permian Basin saw temperatures overnight as low as 0 degrees F.
- As of February 16, Texas gas production was estimated at 15.7 billion cubic feet per day (Bcf/d), down approximately 30% from pre-event average.
- Although production losses due to freeze-offs are temporary, output takes time to return to normal levels, and the cumulative reduction over several days could be substantial.

### NATURAL GAS PROCESSING PLANTS

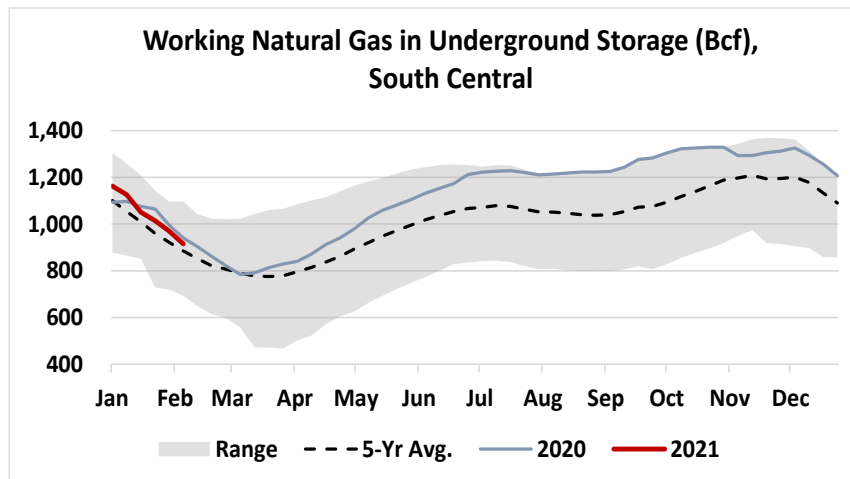
- Some natural gas processing plants across Texas have reportedly shut down due to freezing conditions. This has forced the shut-in of some natural gas production.

### NATURAL GAS STORAGE

- Suppliers are compensating for lost output and responding to the surge in gas demand by withdrawing gas from storage facilities.
- Draws from gas storage facilities in the U.S. South Central region have increased sharply during the cold weather event, doubling to about 20 Bcf/d from about 10 Bcf/d pre-event.

### NATURAL GAS STOCKS

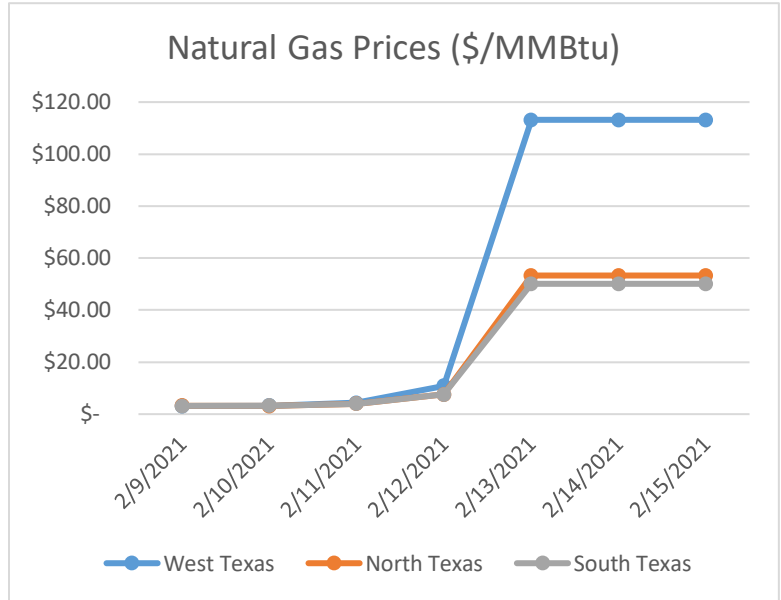
- Natural gas stocks in the U.S. South Central region stood at 915 Bcf/d on February 5, 4.3% above the five-year average for this time of year.
- According to [EIA's Form 191](#) data, Texas has 30 active natural gas storage facilities.



South Central includes Alabama, Arkansas, Kansas, Louisiana, Mississippi, Oklahoma, and Texas

**NATURAL GAS PRICES**

- Natural gas prices have increased across Texas with spot prices increasing above \$100/MMBtu in several markets. Price increases have been seen across the entire Midcontinent as demands due to cold weather have strained supply and resulted in price spikes.



**NATURAL GAS UTILITIES**

- On February 12, the Texas Railroad Commission [issued an emergency order](#) temporarily prioritizing natural gas deliveries to natural gas utilities for residences, hospitals, schools, churches, and other human needs customers.



**PETROLEUM SECTOR**

**PETROLEUM SECTOR SUMMARY**

Extreme cold temperatures and power outages have forced operators to shut down refineries in the U.S. Gulf Coast region. Additionally, extreme cold temperatures and well freeze-offs have led to production outages in producing areas.

**PORTS**

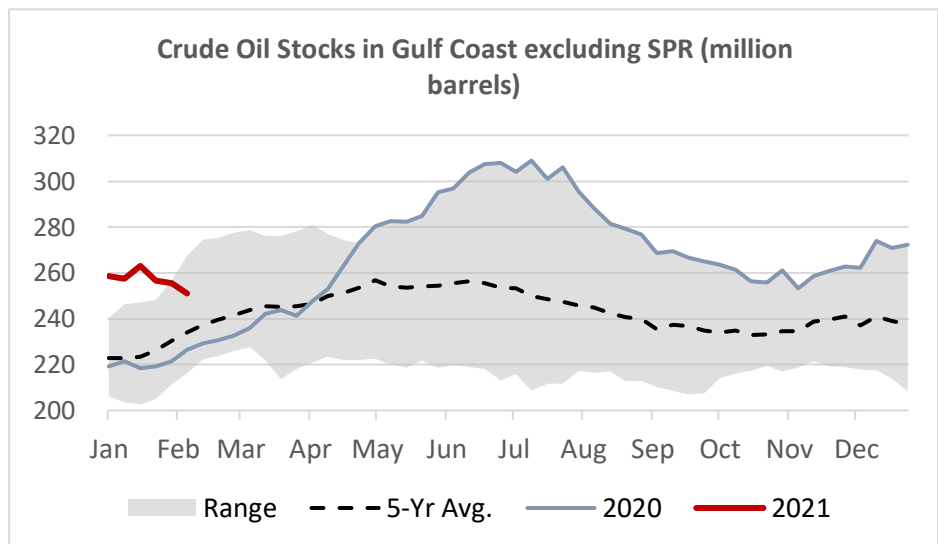
- Operations in the Houston Ship Channel have been reduced due to freeze offs impacting refineries and terminals. On February 16, there were 13 vessels waiting to depart the channel with 18 ships in queue to come into the waterway.

**REFINERIES**

- There are approximately 3.6 million bcf/dof refinery capacity outages due to the severe cold along the Texas Coast, or about 36% of PADD 3 refinery capacity, and 20% of U.S. refinery capacity.

**OIL STOCKS**

- Crude oil stocks in the Gulf Coast (PADD 3) averaged 251 million barrels for the week ending February 5, 7.2% above the five-year average for this time of year.



## EMERGENCY DECLARATIONS & WAIVERS

### EMERGENCY DECLARATIONS

To provide vital supplies and transportation services to a disaster area in the United States, emergency declarations may be issued by the President, Governors of States, or the Federal Motor Carrier Safety Administration (FMCSA). These declarations trigger the temporary suspension of certain Federal safety regulations, including Hours of Service for motor carriers and drivers engaged in specific aspects of the emergency relief effort. See [49 CFR 390.23](#) for the actual emergency regulation.

Emergency Declarations and HOS Waivers <i>as of 1:00 PM EDT 02/15/2021</i>				
State/Territory	Details	Effective Dates		Status
		Start	End	
Virginia	<a href="#">State of Emergency</a>	2/11	3/13	Active
Oregon	<a href="#">State of Emergency</a>	2/13	2/20	Active
Kentucky	<a href="#">Kentucky Transportation Cabinet Declaration of Emergency</a> - Assistance for power restoration and delivery of gasoline, propane, and diesel fuels	2/11	2/21	Active
Mississippi	<a href="#">State of Emergency</a>	2/14	2/21	Active
Alabama	<a href="#">State of Emergency</a>	2/14	Continuing	Active
Louisiana	<a href="#">State of Emergency</a>	2/11	Continuing	Active
Oklahoma	<a href="#">State of Emergency</a>	2/12	Continuing	Active
Texas	<a href="#">Texas Department of Public Safety Emergency Notice</a> – Assistance for delivery of Propane and Home Heating Oils	2/10	2/15	Active
	<a href="#">Federal Emergency Declaration</a>	2/11	Continuing	Active
	<a href="#">State Disaster Declaration</a>	2/12	Continuing	Active

Sources: State government, White House, and FMCSA websites.



- Not Public Document – Not For Public Disclosure  
 Public Document – Not Public Data Has Been Excised  
 Public Document

Xcel Energy Information Request No. 34  
Docket No.: G002/CI-21-610, OAH 71-2500-37763  
Response To: Minnesota Department of Commerce  
Requestor: Nancy Campbell  
Date Received: November 16, 2021

---

Question:

Topic: Gas Purchases

Reference(s): Green Direct Testimony

Please refer to the Direct Testimony of Gordon H. Green filed on behalf of Northern States Power Company (“NSPM” or “Xcel”) on October 22, 2021.

Request:

a) Beginning on page 19, line 22 and ending at page 20, line 5, Mr. Green testified:

Q. DID YOU MAKE ANY PURCHASES FOR THE LDC AFTER FRIDAY, FEBRUARY 12TH?

A. Yes. On February 13, we made an unplanned purchase of 14,000 Dth at a fixed price of \$95 per Dth, well below that day’s Demarc midpoint of \$231.57 and Ventura’s midpoint of \$154.91. This purchase was made in anticipation of predicted supply cuts. On February 15, we made another purchase of 8,280 at a fixed price of \$157 per Dth, slightly above the Ventura midpoint but below the Demarc midpoint. The amount purchased was less than the total undelivered amount of gas that day, but the 8,280 Dth purchased were considered necessary to meet customers’ needs. These supply cuts were related to production issues caused by the well freeze-offs and other equipment failures in the southwest United States.

Please provide additional detail for the two intra-weekend gas purchases including why incremental purchases were deemed necessary, considering the most updated load forecast, time of purchase, any other relevant factors.

b) On page 20, lines 10-12, Mr. Green testified:

For February 17, we purchased 272,953 Dths of spot gas at an average price \$127.19 per Dth, including approximately 50,000 Dth in fixed price purchases that were purchased below the reported daily index price. The remaining gas was purchased at index-based prices. That day, the highest published spot prices were \$250 at Demarc and \$495 at Ventura.

- i. Please reconcile the company's choice to purchase fixed price spot gas for February 17 with the decision and stated justifications for not purchasing fixed price spot gas for the holiday weekend.
- ii. Please include the timing of the February 17 fixed price purchase versus the index purchases made on February 16.

Response:

- a. The February 13 and 15 intra-day purchases were prompted by market signals that supply was beginning to fail, presumably due to well freeze-offs. These purchases were replacement quantities rather than incremental quantities. The pipeline scheduling process, including shipper confirmations, would not be finalized until late in the day, so we did not know exactly how much supply we might lose (or would be "cut" by suppliers). However, based on our past operational experience, we determined that we should buy some gas supply to replace expected lost quantities. Further, these gas purchases needed to be made during the day while sellers were available to transact deals, especially since the trading exchanges were not active. The supplies were acquired to ensure that we had sufficient gas quantities to serve our customers' expected needs. As events later transpired, there were significant gas supply failures from some of our supply areas.
- b. As described in the direct testimony of Gordon Green, the gas sales market for purchases made on Friday before the holiday weekend demonstrated very high demand and increasingly limited supplies. There was significant concern that if the Company deferred our gas purchases until later in the morning when the fixed price market opened, there would not be adequate supply available to serve our needs at the market locations where we held takeaway transportation capacity. Therefore, we purchased all of the gas we could reasonably obtain during the earlier index priced market. The decision to purchase fixed price gas on Feb 17 was based on a combination of factors in that morning's trading. One factor was the weather forecast for the next few days showed warming temperatures. Also, the Company was buying gas for a single day ahead, as opposed to a four-day weekend. The other factor involved that morning was the feeling in the market. After the long holiday weekend, there appeared to be

some lingering fear in the market. The Company believed that this fear would—as it in fact did—subside as that morning’s trading went on. As a result, and based on these factors, we held out a portion of our daily needs for fixed-price deals as a limited hedge against the market. As the Company predicted, the first fixed price trades that morning were priced significantly higher than those following, and prices continued to drop throughout the day’s trading session. By capturing some of these falling prices the Company was able to purchase this quantity of gas at a lower price than index.

---

Preparer: Craig Rozman  
Title: Manager  
Department: Gas Supply  
Telephone: 303-571-2844  
Date: November 24, 2021

- Not Public Document – Not For Public Disclosure  
 Public Document – Not Public Data Has Been Excised  
 Public Document

Xcel Energy Information Request No. 47  
Docket No.: OAH 71-2500-37763; MPUC CI-21-610  
Response To: Minnesota Department of Commerce  
Requestor: Nancy Campbell  
Date Received: November 29, 2021

---

Question:

Topic: Gas Supply Planning and Purchasing

Reference(s): Derryberry Direct Testimony

Please refer to the Direct Testimony of Richard L. Derryberry and attached schedules filed on behalf of Northern States Power Company on October 22, 2021.

Requests:

- (a) Please refer to Table 3 on page 26 of schedule 2 of Mr. Derryberry's direct testimony.
- i. Please explain if estimated curtailment volumes are reducing the forecasted volumes shown. If so, please provide those volumes. If not, please explain why not.
  - ii. Please explain how the utility over-forecasted load despite warmer than forecasted weather on February 14.
  - iii. Please explain why the forecast for February 17 is higher than the actual load on February 16 despite warmer weather.
- (b) Please describe any actions the utility would have done differently if the peaking plants were available.

Response:

- a)
  - i. The forecasted volumes shown in Table 3 do not remove the estimated curtailment volumes. As the Company noted in its Response to DOC Information Request No. 35, the Company uses its gas load forecasts as one input among many in planning next day gas purchases and storage withdrawals for each day, making adjustments for other factors as well.
  - ii. If actual weather is warmer than originally forecast, the original load forecast would be expected to be higher than actual load.

- iii. As described in Witness Boughner's testimony at page 5 lines 7 through 13, the Company uses the TESLA model to forecast LDC gas loads in five geographic areas. While the model takes into consideration the previous day's weather and load, the model forecasts tomorrow's load using data gathered over several years and is not simply based on one day's experience.
- b) Determining whether and to what extent the Company would have taken different actions had the peaking plants been available is impossible to determine. As the Department noted in Docket No. G999/CI-21-135, the plants are primarily used as a reliability tool for daily balancing. The Company does not have specific procedures in place to use the peak shaving plants for economic reasons and the plants have not been regularly used in this manner.

The Company notes that, as it has stated in several places throughout this proceeding, the extent of the unprecedented price spike was not known when we completed our purchases for the holiday weekend at 9 am on February 12<sup>th</sup>. Only after all our gas supplies for the weekend were purchased did the extent of the price impacts come into focus. As such, the Company did not have an opportunity to revise its purchases or re-dispatch the system after the extent of the Event became known.

However, in a purely speculative effort, had the plants been available during the Event, the Company may have been able to take the following different actions. First, the additional transportation capacity acquired for Northern Natural Gas (NNG) would not have been necessary. Please note that the Company has not sought, and does not intend to seek, recovery of the cost of this additional transportation. Second, the Company may not have purchased gas during the weekend to "replace" gas that did not show up. Those purchases totaled 22,722 Dth at a total cost of \$2.8 million. Finally, had the plants been available, the Company may have considered utilizing them as a source of intra-day reserve balancing, potentially reducing the purchased supply from the market. This intra-day balancing provides operational system flexibility when hourly takes exceed expected load. For example, hourly loads may be higher than expected in the evening or overnight hours. If a peak shaving plant is available, the Gas Dispatching group has the option to turn on that plant to provide supplemental gas supply, since incremental gas supply may not be purchased in the middle of the night.

So further speculating about hypothetical scenarios, if the Company had the peak shaving plants available on Friday the 12<sup>th</sup>, it would still have acquired its gas supply needs that morning before the gas market dried up. However, the

Company may have been able to slightly reduce its supply purchases. As noted above, the peak shaving plants provide some hourly flexibility when gas is needed in the middle of the night. As the Company was finalizing its gas supply purchases for the day, it is possible that we may have declined to purchase the last package of gas with the expectation that we could have turned on a peaker plant if gas was needed in the middle of the night. Gas supply is typically sold in increments of 5,000 Dth. So, hypothetically, plant availability may have reduced purchases by 5,000 Dth per day or 20,000 Dth over the event. Using the average cost of spot gas shown in Table 4 of Witness Derryberry's testimony, the total cost would have been \$2.736 million in addition to the \$2.8 million discussed above related to foregoing the two intraday purchases made during the Event. Because of the geographic diversity of the Company's system, involving several distinct and separate areas (ex. Brainerd and St. Paul are distinct systems), the Company spreads its gas supply sources over a large area for reliability purposes. The Company would not have relied on a peak shaving plant located in Inver Grove Heights to support gas supply needs for its entire service area. Therefore, it is unlikely that we would have planned to offset intra-day gas purchases by more than one gas supply package.

---

Preparer: Justin Holstein  
Title: Manager  
Department: Gas Resource Planning  
Telephone: 303-571-2750  
Date: December 7, 2021



Minnesota Department of Commerce  
85 7th Place East | Suite 280 | St. Paul, MN 55101  
Information Request

**Docket Nos:** OAH 71-2500-37763; MPUC CI-21-611

Nonpublic  Public

**Requested From:** MERC

Date of Request: 11/29/2021

**Type of Inquiry:** General

Response Due: 12/7/2021

**SEND RESPONSE VIA EMAIL TO:** Utility.Discovery@state.mn.us; commerce.attorneys@ag.state.mn.us; Nancy.Campbell@state.mn.us; Katherine.Hinderlie@ag.state.mn.us; Richard.Dornfeld@ag.state.mn.us

**Assigned Analyst(s):** Nancy Campbell

**Email Address(es):** Contact through counsel at katherine.hinderlie@ag.state.mn.us

**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

---

**Request Number:** 52  
**Topic:** Forecasting  
**Reference(s):** DOC IR 4(b)

---

Please refer to MERC's response(s) to DOC IR 4(b) (including supplemental and corrected responses), any attachments, and any referenced testimony or documents and Schedule 7 of Sarah Mead's Direct Testimony.

**Request:**

- (a) Please explain why the forecast for February 17, shown as System Requirements (Forecasts less known Transport) on Schedule 7 of Ms. Mead's direct testimony, was the highest for the February Event, with the exception of February 14, despite being the warmest day.
- (b) Please generally explain the large forecast error for February 17 for MERC NNG.

**MERC Response:**

- a) While using the "System Requirements (Forecast less known Transport)" (Sales Forecast) numbers to gauge the forecast, it is important to identify that those values shown on Schedule 7 of Ms. Mead's Direct Testimony are a derivative of the following:
  - i. "Forecast For Day of Gas Deliveries" (System-Wide Forecast) – The forecast for the Total System known at the time of daily purchases for that day. This includes the forecast for Sales customers as well as Transport customers.

---

To be completed by responder

Response Date: December 7, 2021

Response by: Sarah Mead

Email Address: sarah.mead@wecenergygroup.com

Phone Number: 920-433-7647



Minnesota Department of Commerce  
85 7th Place East | Suite 280 | St. Paul, MN 55101  
Information Request

**Docket Nos:** OAH 71-2500-37763; MPUC CI-21-611

Nonpublic  Public

**Requested From:** MERC

Date of Request: 11/29/2021

**Type of Inquiry:** General

Response Due: 12/7/2021

**SEND RESPONSE VIA EMAIL TO:** Utility.Discovery@state.mn.us; commerce.attorneys@ag.state.mn.us;  
Nancy.Campbell@state.mn.us; Katherine.Hinderlie@ag.state.mn.us; Richard.Dornfeld@ag.state.mn.us

**Assigned Analyst(s):** Nancy Campbell

**Email Address(es):** Contact through counsel at katherine.hinderlie@ag.state.mn.us

**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

- 
- ii. "Transportation Customer Info Known at Time of Purchase" (Transport) – These values reflect the nominations that were in the pipeline systems for deliveries at the time of purchase.

There is the potential for large variability with the Transport customer demand. As we compare the Transport values for what was known at the time of gas purchases for days 13-16, versus during the 23<sup>rd</sup> Hour Forecast, it becomes apparent that Transport values at the time of purchase were much higher than what those customers ultimately used. MERC does not receive a forecast specifically for Transport customers given a 3<sup>rd</sup> party is responsible for supply purchases and relies on the customer to have delivered what is needed. The Transport customers, after the point in which MERC had to make procurement decisions based on the information at the time, significantly dropped their forecast and resultant actual gas use after Feb 12. This is important given the Sales Forecast is a derivative of that number.

For gas day 17, at the time of the final daily gas purchases, the Transport customer information was much closer to what they ultimately delivered.

A better correlation of temperature to overall forecast would be to either use the System Wide Forecast or the System Requirement at the 23<sup>rd</sup> Hour Forecast of Gas Deliveries section. This would take out the variability of the Transport customers as the scheduled gas for them is much closer to the actual use. February 17<sup>th</sup> was the warmest day and the System Wide Forecast is the lowest day of the Event that day, as is the System Requirements value in the 23<sup>rd</sup> Hour Forecast section.

---

To be completed by responder

Response Date: December 7, 2021

Response by: Sarah Mead

Email Address: sarah.mead@wecenergygroup.com

Phone Number: 920-433-7647





Minnesota Department of Commerce  
85 7th Place East | Suite 280 | St. Paul, MN 55101  
Information Request

**Docket Nos:** OAH 71-2500-37763; MPUC CI-21-611

Nonpublic  Public

**Requested From:** MERC

Date of Request: 11/29/2021

**Type of Inquiry:** General

Response Due: 12/7/2021

**SEND RESPONSE VIA EMAIL TO:** Utility.Discovery@state.mn.us; commerce.attorneys@ag.state.mn.us; Nancy.Campbell@state.mn.us; Katherine.Hinderlie@ag.state.mn.us; Richard.Dornfeld@ag.state.mn.us

**Assigned Analyst(s):** Nancy Campbell

**Email Address(es):** Contact through counsel at katherine.hinderlie@ag.state.mn.us

**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

---

b) There were two significant variables that MERC can attribute the significant deviation between the forecast and actuals to on February 17<sup>th</sup>.

- i. Per 21-611 MERC Response to Department IR No. 004 Event\_Weather Forecast\_Actual.xls, February 17<sup>th</sup> ended up warmer in almost all regions versus the forecast.
- ii. As discussed in part a) above, the System Wide Forecast included what was the recent historical Transport volumes in the forecast. The actual Transport volumes were roughly 40,000 - 50,000dth less than prior to the Event. That occurred each day of the Event, but as the overall System Wide Forecast decreased due to the temperature increase, the percentage impact of that difference increased.

---

To be completed by responder

Response Date: December 7, 2021

Response by: Sarah Mead

Email Address: sarah.mead@wecenergygroup.com

Phone Number: 920-433-7647



Minnesota Department of Commerce  
85 7th Place East | Suite 280 | St. Paul, MN 55101  
Information Request

**Docket Nos:** OAH 71-2500-37763; MPUC CI-21-611

Nonpublic  Public

**Requested From:** MERC

Date of Request: 11/29/2021

**Type of Inquiry:** General

Response Due: 12/7/2021

**SEND RESPONSE VIA EMAIL TO:** Utility.Discovery@state.mn.us; commerce.attorneys@ag.state.mn.us; Nancy.Campbell@state.mn.us; Katherine.Hinderlie@ag.state.mn.us; Richard.Dornfeld@ag.state.mn.us

**Assigned Analyst(s):** Nancy Campbell

**Email Address(es):** Contact through counsel at katherine.hinderlie@ag.state.mn.us

**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

---

<b>Request Number:</b>	<b>53</b>
Topic:	Spot Gas Purchases
Reference(s):	DOC IR 7(a) and (b)

---

Please refer to MERC's response(s) to DOC IR 7(a) and (b) (including any supplemental and corrected responses), any attachments, and any referenced testimony or documents.

**Request:**

- Please confirm or deny that the utility did not buy spot gas sufficient (when considered with baseload and available storage) to meet its forecasted load for MERC NNG for February 17.
- If confirmed, please reconcile the strategy of a planned supply position short of forecasted load requirements versus the utility's stated strategy of acquiring supply slightly in excess of forecasted requirements.
- If denied, please explain how purchases were sufficient.

**MERC Response:**

- MERC procured sufficient spot gas to meet its forecast load for MERC NNG for February 17<sup>th</sup>.
- Not applicable as MERC procured sufficient volumes.
- When planning for the day, the Schedule 7 daily imbalance does suggest that the spot purchases were slightly short of the demand forecast. A trend was identified from the 13<sup>th</sup> – 16<sup>th</sup>, that the Transport volumes went down significantly, as detailed in MERC's response to Department IR #052. As a result, MERC could reduce its storage withdrawals during the 23<sup>rd</sup> Hour Forecast for

---

To be completed by responder

Response Date: December 7, 2021

Response by: Sarah Mead

Email Address: sarah.mead@wecenergygroup.com

Phone Number: 920-433-7647



Minnesota Department of Commerce  
85 7th Place East | Suite 280 | St. Paul, MN 55101  
Information Request

**Docket Nos:** OAH 71-2500-37763; MPUC CI-21-611

Nonpublic  Public

**Requested From:** MERC

Date of Request: 11/29/2021

**Type of Inquiry:** General

Response Due: 12/7/2021

**SEND RESPONSE VIA EMAIL TO:** Utility.Discovery@state.mn.us; commerce.attorneys@ag.state.mn.us;  
Nancy.Campbell@state.mn.us; Katherine.Hinderlie@ag.state.mn.us; Richard.Dornfeld@ag.state.mn.us

**Assigned Analyst(s):** Nancy Campbell

**Email Address(es):** Contact through counsel at katherine.hinderlie@ag.state.mn.us

**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

---

that full period. For Gas Day 17, the nominations for the Transport customers remained low but the System Wide forecast assumed they were at the pre-Event level, a difference of roughly 50,000 Dth. When considering how much spot purchases to make, MERC took into consideration the forecast that appeared to assume the Transport customers would be at the pre-Event volume. The spot purchases made for February 17<sup>th</sup> were sufficient to meet load, in fact, MERC again reduced its storage withdrawals at the 23<sup>rd</sup> hour. MERC did not receive any pipeline penalties for delivering less than the demand or suffer any pressure deficiencies as a result of insufficient supply.

---

To be completed by responder

Response Date: December 7, 2021

Response by: Sarah Mead

Email Address: sarah.mead@wecenergygroup.com

Phone Number: 920-433-7647

- Not Public Document – Not For Public Disclosure  
 Public Document – Not Public Data Has Been Excised  
 Public Document

Xcel Energy Information Request No. 48  
Docket No.: OAH 71-2500-37763; MPUC CI-21-610  
Response To: Minnesota Department of Commerce  
Requestor: Nancy Campbell  
Date Received: November 29, 2021

---

Question:

Topic: Spot Gas Purchases

Reference(s): Xcel Response to DOC IR 7(a) and (b)

Please refer to Xcel's response(s) to DOC IR 7(a) and (b), attachments, and any documents referenced in those responses.

Requests:

- (a) Please confirm or deny that the utility did not buy spot gas sufficient (when considered on February 12 with baseload and available storage) to meet its forecasted load for February 14.
- (b) If confirmed, please reconcile the strategy of a planned supply position short of forecasted load requirements versus the utility's stated strategy of acquiring supply slightly in excess of forecasted requirements.
- (c) If denied, please explain how purchases were sufficient.

Response:

- (a) On February 12, the Company had 1,537 MMBtu less total supply purchased than the forecast for February 14. However, that forecast included interruptible customers.
  - (b) The Company was planning to curtail interruptible customers and believed that purchased supply plus storage withdrawals would be adequate to serve firm customers on that day.
  - (c) Not Applicable.
-

Preparer: Craig Rozman  
Title: Manager  
Department: Gas Supply  
Telephone: 303-571-2844  
Date: December 7, 2021

**State of Minnesota**  
**Minnesota Department of Commerce**

**Utility Information Request**

Docket Number: G-008/M-21-138 - Cost Impacts/Extreme Weather Date of Request: 11/29/2021

Requested From: CenterPoint Energy Minnesota Gas Response Due: 12/7/2021

Analyst Requesting Information: Nancy Campbell

Type of Inquiry: Other

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

Request No.	
DOC 044	<p>Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.</p> <p>Topic: Storage Withdrawals Reference(s): Toys Direct</p> <p>Please refer to the Direct Testimony of Jeffrey T. Toys and attached schedules filed on behalf of CenterPoint Energy Resources Corp. ("CenterPoint") on October 22, 2021.</p> <p>Requests:</p> <ul style="list-style-type: none"><li>a. Please refer to Table 18 on page 48 of Mr. Toys direct testimony. Please explain why the amount of NGPL storage nominated was less than the available maximum withdrawal amount.</li><li>b. Please refer to page 49, lines 11-13, of Mr. Toys direct testimony, which states:  On February 14, we were not using the full NNG transportation capacity and as a result of the operating conditions on that day, we were able to withdraw and deliver an additional 5,000 Dth from Waterville.  <ul style="list-style-type: none"><li>i. Please state when the utility knew that the additional 5,000 Dth of storage withdrawals from Waterville would be available.</li><li>ii. Please provide any documentation of any notification of this availability.</li></ul></li></ul>

Response By: Jeffrey Toys  
Title: Manager, Gas Supply Optimization  
Department: Gas Purchasing  
Telephone: 713-207-4835

- c. Please refer to Mr. Toys direct testimony beginning on page 60 at line 15 and ending on page 61 at line 3, which states:

However, by February 17th, the Company had fully utilized the available Ventura swing volume portion of the BP storage contract, which allows for daily deliveries of 70,000/day up to the 3.7 Bcf limit. Beginning on February 13th, the Company had 232,000 Dth remaining of its seasonal limit. The Company used 58,000 Dth/day on February 13 – 16 – the remaining 232,000 Dth. Therefore, the remaining overall available daily withdrawal limit under the BP contract on February 17th was 50,000 Dth/day.

- i. Please describe any options the utility had to preserve the BP storage Ventura portion for February 17.
- ii. Please explain why the utility did not pursue any options described.

**Response:**

- a. The difference is due to applicable fuel rates to transport the storage withdrawals to CenterPoint Energy's system from NGPL storage. CenterPoint Energy nominates the amount delivered.
- b.
  - i. CenterPoint Energy did not know that there would be additional storage withdrawal capability from Waterville above the planed 50,000 Dth until after the start of Gas Day 14. Personnel at Waterville, in consultation with gas control and in coordination with Northern Natural Gas, the interstate pipeline, assess the operating conditions at the storage facility and on the pipeline to determine whether conditions will allow for an increase to the overall withdrawal rate on a short term basis. Waterville personnel continually monitor for any storage field or equipment problems, so that adjustments to reduce the withdrawal rate can be made if necessary based on any issues.
  - ii. There is no documentation of any notification of the availability of additional withdrawal capacity. See response to i. above.
- c.
  - i. CenterPoint Energy could have utilized less of the available BP virtual storage earlier in the event or heating season to retain additional storage for use on the 17<sup>th</sup>. However, as discussed below the Company did not have advanced warning of the price spike prior to the event.
  - ii. CenterPoint Energy followed its gas procurement plan dispatch plan throughout the 2020-2021 winter heating season. As described in the

Response By: Jeffrey Toys  
Title: Manager, Gas Supply Optimization  
Department: Gas Purchasing  
Telephone: 713-207-4835

Direct Testimony of Ms. Paula Grizzle, CenterPoint Energy develops its planned storage withdrawals based on the daily requirements forecast and applicable contractual withdrawal rights and operational considerations. Relevant to that planning, the BP virtual storage contract establishes a purchase obligation, under which the Company must take delivery of all volumes under the contract by the end of March.

See CenterPoint Energy's Supplemental response to Department Information Request No. 14. In 2020-2021, actual withdrawals closely matched CenterPoint Energy's winter dispatch plan as shown in attached DOC 14 - S\_Attachment.xlsx. However, February withdrawals under the BP virtual storage were approximately 2% higher due to temperatures being colder than normal. CenterPoint Energy maximized its withdrawal rights as much as possible to meet customer load requirements through February. The Company's overall utilization of the Carlton swing (1.305 Bcf) and Ventura swing (3.7 Bcf) for 2020-2021 was also planned to ensure the Company could meet its Carlton Resolution Obligation under Northern Natural Gas' FERC Tariff Sheet No. 263.

As discussed in the Direct Testimony of Mr. Jason Ryan and Mr. Jeffrey Toys, CenterPoint Energy did not have any advanced warning of the price spike in the weeks or days leading up to the February Market Event. As a result, there was no reason for the Company to deviate from its plan and doing so could have risked excess supply in the event of warmer weather late in the winter heating season.



- Not Public Document – Not For Public Disclosure  
 Public Document – Not Public Data Has Been Excised  
 Public Document

Xcel Energy Information Request No. 12  
Docket No.: G002/CI-21-610, OAH 71-2500-37763  
Response To: Minnesota Department of Commerce  
Requestor: Nancy Campbell  
Date Received: November 2, 2021

---

Question:

Topic: Conservation  
Reference(s): All Gas Utilities' Testimony

Please provide a detailed explanation of each, if any, short-term conservation pleas made since October 1, 2015. Please include the reason for the plea, dates, estimated load reduction, relevant documents and communications, and any other relevant information. Please exclude Conservation Improvement Program communications and marketing messages made in the ordinary course business.

Response:

The Company issued an appeal for natural gas conservation related to the Polar Vortex from Jan. 28 to Feb. 1, 2019. During that period, we experienced historically low temperatures in our service territory over a four-day period that stressed the electric and natural gas systems.

We initially appealed to customers in specific areas experiencing low pressure on the natural gas system, asking them to lower their thermostats. Due to the sustained low temperatures, we later issued a general appeal for all Minnesota customers as a conservative measure to ensure adequate natural gas for our customers and electric energy production. Our appeal to all Minnesota customers was made on January 30, using a news release, social media, our website and email. Relevant news releases are included as Attachment A to this response.

We could not reliably measure the impact of this measure on customer usage.

---

Preparer: Matt Laible  
Title: Jurisdictional Comms. Director  
Department: Strategic Communications  
Telephone: 612-227-2394  
Date: November 10, 2021

## Polar vortex news releases

### News Release 1 – Jan. 30

## Xcel Energy urging natural gas conservation in parts of central Minnesota

Customers in the Becker, Big Lake, Chisago City, Isanti, Lindstrom and Princeton communities asked to limit natural gas use

**Minneapolis (Jan. 30, 2019)** – Extreme weather conditions are putting a significant strain on the natural gas system. To ensure we can continue serving our communities during this cold spell, we are asking customers in Becker, Big Lake, Chisago City, Isanti, Lindstrom, and Princeton to reduce their use of natural gas.

We ask our customers in these (listed) communities to turn down their thermostat to 60 degrees or lower and avoid the use of other natural gas appliances including hot water. To try to keep their home warm, customers may want to use electric space heaters. We would like customers to take these steps until further notice. We've also secured hotel rooms for customers who are turning down their thermostats. People can get updates as they are available on our website and social media pages.

As an important safety reminder, if customers ever detect a sulfur or rotten egg smell inside or near their home, it could be the odorant that we put in natural gas to help detect leaks. If they notice that smell, leave home immediately. Do not turn any electrical devices on or off, do not use a garage door opener, and never use any phone until they are outside and away, then call us at 1-800-895-2999. In a life-threatening emergency, call 911.

We apologize for any inconvenience and thank customers advance for your gas conservation efforts.

### **About 150 Customers in Princeton without Gas Service**

Xcel Energy experienced an interruption to its natural gas system last night around 10:30 p.m. and about 150 customers in the Princeton area likely lost gas service. Our crews are on the scene working as quickly and safely to restore service. We anticipate the gas to be back on tomorrow.

We've secured hotel rooms for customers affected by the outage and those while we work to restore natural gas service to the Princeton area to ensure everyone's safety. We appreciate everyone's patience as we work to restore service.

Before customers leave their home, they should leave their faucets running at a trickle, leave your cabinet doors open and close all your doors, windows and curtains closed to retain heat.

Xcel Energy is contacting licensed plumbers to protect the plumbing while we restore service.

Before Xcel Energy can return service to customers' homes, our crews will need to (turn off your natural gas OR ensure all the gas/air has been removed from the line serving your home) at the meter outside of your home. We will return to relight pilot lights on appliances when it is safe to do so. Someone 18

years or older must be home to allow our crews to enter and to remain until they are finished. If they are unavailable when we come to your home, we will make arrangements to return after we complete our initial visits to all impacted customers.

Xcel Energy (NASDAQ: XEL) provides the energy that powers millions of homes and businesses across eight Western and Midwestern states. Headquartered in Minneapolis, the company is an industry leader in responsibly reducing carbon emissions and producing and delivering clean energy solutions from a variety of renewable sources at competitive prices. For more information, visit [www.xcelenergy.com](http://www.xcelenergy.com) or follow us on [Twitter](#) and [Facebook](#).

## News Release 2 – Jan. 30

# Xcel Energy asking customers to conserve natural gas during extreme cold

Minnesota customers are encouraged to temporarily lower thermostats until Thursday morning

**Minneapolis (Jan. 30, 2019)** – With extremely cold temperatures anticipated to continue into tomorrow morning, Xcel Energy is asking our Minnesota customers to help conserve natural gas so our gas system can continue to operate well for customers across the state. The best way to help is to temporarily reduce your thermostat setting to 63 degrees if possible through Thursday morning (9 a.m. or later). This step can help ensure that all of our customers continue to have gas service during this bitterly cold weather.

As an important safety reminder, if customers ever detect a sulfur or rotten egg smell inside or near their home, it could be the odorant that we put in natural gas to help detect leaks. If they notice that smell, leave home immediately. Do not turn any electrical devices on or off, do not use a garage door opener, and never use any phone until they are outside and away, then call us at 1-800-895-2999. In a life-threatening emergency, call 911.

We apologize for any inconvenience and thank customers for all your gas conservation efforts.

### About 150 Customers in Princeton without Gas Service

Xcel Energy experienced an interruption to its natural gas system last night around 10:30 p.m. and about 150 customers in the Princeton area lost gas service. Our crews are on the scene working as quickly and safely to restore service. We anticipate the gas to be back on tomorrow.

We have arranged for hotel rooms for customers affected by the outage while we work to restore natural gas service to the Princeton area. Xcel Energy is covering the costs of the rooms, so affected customers can call the hotel directly to book at no cost to them. The list of hotels can be found on Xcel Energy's website or by calling 1-800-895-4999. We're also working closely with licensed plumbers to protect customers' plumbing while we restore service. We appreciate everyone's patience as we work to resolve the issue.

Xcel Energy (NASDAQ: XEL) provides the energy that powers millions of homes and businesses across eight Western and Midwestern states. Headquartered in Minneapolis, the company is an industry leader in responsibly reducing carbon emissions and producing and delivering clean energy solutions from a variety of renewable sources at competitive prices. For more information, visit [www.xcelenergy.com](http://www.xcelenergy.com) or follow us on [Twitter](#) and [Facebook](#).



Minnesota Department of Commerce  
85 7th Place East | Suite 280 | St. Paul, MN 55101  
Information Request

**Docket Nos:** OAH 71-2500-37763; MPUC CI-21-611

Nonpublic  Public

**Requested From:** MERC

Date of Request: 11/29/2021

**Type of Inquiry:** General

Response Due: 12/7/2021

**SEND RESPONSE VIA EMAIL TO:** Utility.Discovery@state.mn.us; commerce.attorneys@ag.state.mn.us; Nancy.Campbell@state.mn.us; Katherine.Hinderlie@ag.state.mn.us; Richard.Dornfeld@ag.state.mn.us

**Assigned Analyst(s):** Nancy Campbell

**Email Address(es):** Contact through counsel at katherine.hinderlie@ag.state.mn.us

**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

---

<b>Request Number:</b>	<b>54</b>
Topic:	Gas Supply Failures
Reference(s):	DOC IR 8(a)

---

Please refer to MERC's response(s) to DOC IR 8(a) (including any supplemental and corrected responses), any attachments, and any referenced testimony or documents.

**Request:**

- (a) Please confirm or deny that the utility purchased spot gas for February 17 to replace the term purchase gas cut (referenced as "Contract #1").
- (b) If confirmed, please explain how incremental Extraordinary Costs were avoided.  
If denied, please explain how the utility avoided purchasing replacement spot supply for an ongoing baseload gas cut.

**MERC Response:**

- a) MERC did not purchase any spot supply to replace the term purchase gas cut.
- b) While some baseload was being cut the previous few days of the Event, it was relatively minor (~5k). MERC intentionally aims to be long to forecast, in part, to account for some small supply cuts, as well as weather deviations. The supply cuts were minor enough to not require MERC to procure replacement supply. The spot purchases made for February 17th were sufficient to meet load, in fact, MERC again reduced its storage withdrawals at the 23rd hour. MERC did not

---

To be completed by responder

Response Date: December 7, 2021

Response by: Sarah Mead

Email Address: sarah.mead@wecenergygroup.com

Phone Number: 920-433-7647



Minnesota Department of Commerce  
85 7th Place East | Suite 280 | St. Paul, MN 55101  
Information Request

**Docket Nos:** OAH 71-2500-37763; MPUC CI-21-611

Nonpublic  Public

**Requested From:** MERC

Date of Request: 11/29/2021

**Type of Inquiry:** General

Response Due: 12/7/2021

**SEND RESPONSE VIA EMAIL TO:** Utility.Discovery@state.mn.us; commerce.attorneys@ag.state.mn.us;  
Nancy.Campbell@state.mn.us; Katherine.Hinderlie@ag.state.mn.us; Richard.Dornfeld@ag.state.mn.us

**Assigned Analyst(s):** Nancy Campbell

**Email Address(es):** Contact through counsel at katherine.hinderlie@ag.state.mn.us

**Phone Number(s):** Contact through counsel at 651-757-1468

**ADDITIONAL INSTRUCTIONS:**

Each response must be submitted as a text searchable PDF, unless otherwise directed. Please include the docket number, request number, and respondent name and title on the answers. If your response contains Trade Secret data, please include a public copy.

---

receive any pipeline penalties for delivering less than the demand nor suffer any pressure deficiencies as a result of insufficient supply.

---

To be completed by responder

Response Date: December 7, 2021

Response by: Sarah Mead

Email Address: sarah.mead@wecenergygroup.com

Phone Number: 920-433-7647

- Not Public Document – Not For Public Disclosure  
 Public Document – Not Public Data Has Been Excised  
 Public Document

Xcel Energy Information Request No. 49  
Docket No.: OAH 71-2500-37763; MPUC CI-21-610  
Response To: Minnesota Department of Commerce  
Requestor: Nancy Campbell  
Date Received: November 29, 2021

---

Question:

Topic: Supply failures

Reference(s): Xcel Response to DOC IR 8

Please refer to Xcel's response(s) to DOC IR 8(a) and any referenced documents or testimony.

Requests:

Please explain when the utility was aware of each supply failure during the February Event and how that knowledge was factored into purchases of spot gas. Provide any documents associated with the notification or the utility's awareness of each supply cut failure.

Response:

Typically, supply failures for specific contracts are formally identified when the pipeline transporters issue their final scheduled quantities, which is typically around 4:00 to 5:00 pm on the day(s) following the gas purchases. The Company may also gain a sense of the overall performance of supplies at the market level through informal interactions with producer/sellers and pipeline transporters throughout the business day. It was this market sense that prompted the Company to purchase additional supplies. See Witness Green's testimony at pages 18 – 20 for a description of the purchases of spot gas related to supply failures and the Company's reasons for doing so. Final scheduled quantity notifications from pipeline transporters and Intercontinental Exchange (ICE) chats were previously provided to the Department of Commerce in response to Office of Attorney General Information Request No. 5 in Docket No. G999/CI-21-135.

---



Preparer: Craig Rozman  
Title: Manager  
Department: Gas Supply  
Telephone: 303-571-2284  
Date: December 7, 2021