



414 Nicollet Mall  
Minneapolis, Minnesota 55401

**PUBLIC DOCUMENT  
NOT PUBLIC DATA HAS BEEN EXCISED**

November 1, 2016

**—Via Electronic Filing—**

Daniel P. Wolf  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7<sup>th</sup> Place East, Suite 350  
St. Paul, MN 55101

RE: SUPPLEMENTAL FILING  
CHANGES IN CONTRACT DEMAND ENTITLEMENTS  
DOCKET NO. G002/M-16-649

Dear Mr. Wolf:

Northern States Power Company, doing business as Xcel Energy, submits this Supplemental Filing in response to the September 28, 2016 Comments of the Minnesota Department of Commerce, Division of Energy Resources.

The Department recommended that the Commission:

- approve Xcel [Energy's] proposed level of demand entitlement, subject to possible adjustment in the Company's November 1, 2016 supplemental filing;
- allow Xcel [Energy] to recover associated demand costs, subject to possible adjustment in the Company's November 1, 2016 supplemental filing, through the monthly Purchased Gas Adjustment effective November 1, 2016; and
- approve changes in the jurisdictional allocation for demand costs.

We are including two adjustments with this Supplemental Filing which in total decrease costs \$558,313 from our initial petition. As a result, we include the following revised attachments:

- Attachment 1, Schedule 2, Pages 1 and 2
- Attachment 2, Schedule 1, Page 1
- Attachment 2, Schedule 2, Pages 1-4
- Attachment 3, Schedule 1, Page 2

### Changes to Demand Entitlement Levels

There are two updates to the cost levels provided in the Petition filed August 1, 2016 in Docket No. G002/M-16-649. These changes are summarized below and presented in the revised **Attachment 1, Schedule 2, Pages 1 and 2**, and **Attachment 2, Schedule 1, Page 1**. There are no changes to transportation entitlements identified in the Petition.

1. In the Petition, we planned to purchase 16,371 Dth/day of firm, winter-only capacity on Viking Gas Transmission (Viking) to supplement our total design day capacity. However, recent market conditions on Viking – largely a significant spot gas price differential between Emerson and Marshfield, WI – resulted in an increase in demand for capacity on the pipeline. As such, Viking indicated that there were other shippers interested in the remaining unsold capacity and that we would likely need to purchase a five-month contract to obtain the capacity. At that time, we submitted our Contract Demand Entitlement filing to the Minnesota Public Utilities Commission with costs reflecting the expected five-month term.

Subsequently, Viking placed our five-month contract out for competitive bidding pursuant to its tariff. Another potential shipper submitted a bid to Viking for a six-month contract (thus exceeding our offer of a five-month contract on a net present value basis). Viking advised that they had no other capacity available for this winter and that we should match the six-month bid or risk going without capacity for this winter. As we needed the capacity to meet our design day needs for this winter, we agreed to the six-month term and obtained the contract. This purchase has now occurred and specifics of the contract are shown in **Attachment 1, Schedule 2, Pages 1 and 2** and **Attachment 2, Schedule 1**. The additional one-month term results in an increased cost of \$77,774 from the Petition.

2. In the Petition, we reflected an estimated increase in ANR Pipeline transportation costs, based on the rates filed by ANR in its pending rate case proceeding at the Federal Energy Regulatory Commission (FERC). In the intervening time since the submittal of the Petition, ANR and the intervening parties (including Xcel Energy – Northern States Power) reached an Agreement on settlement terms. The settlement is expected to significantly lower our projected cost increase. A settlement document has been drafted and filed with FERC for approval.

Pending the outcome of the settlement, ANR has filed to move into effect lower rates to substitute for the higher rates originally proposed. These

interim rates were accepted by FERC on August 31, 2016 and are currently in effect, subject to refund, and reflected in **Attachment 1, Schedule 2, Pages 1 and 2**. The interim rates result in a decrease in costs of \$636,086 from the Petition.

#### Update on Hedging Transactions

Updated hedging transactions are presented on the revised **Attachment 3, Schedule 1**. We executed seven call options and one cost-collar for the 2016-2017 heating season covering the entire supply quantity we targeted. **Attachment 3, Schedule 1** now reflects all of the current hedging transactions. Total hedging costs for the 2016-2017 heating season are \$1,515,945.

#### Miscellaneous

Portions of our filing contain trade secret information as defined under Minn. Stat. § 13.37. As such, this data is protected from public disclosure and has been marked accordingly. Xcel Energy makes 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. Xcel Energy also provides this information to state regulatory agencies in the Annual Automatic Adjustment of Charges Reports and in the monthly purchased gas adjustment (PGA) filings in the confidential trade secret versions of these reports.

The supply information has economic value to Xcel Energy, its customers, suppliers, and competitors in at least three ways. If suppliers know the terms of Xcel Energy's supply and transportation contracts, they may be able to use this knowledge to fashion bids to Xcel Energy. Suppliers will be reluctant to offer special favorable terms to Xcel Energy if they know other competitors or customers will gain knowledge of the terms and demand similar terms in the future. Competitors of Xcel Energy such as other LDCs also purchase their services. These competitors may be able to leverage knowledge of Xcel Energy's costs to gain similar terms or may offer slightly better prices to suppliers, denying Xcel Energy's access to this gas or other services.

Any of these results would harm Xcel Energy and its natural gas customers. Because Xcel Energy competes for supplies, transportation, storage, and other services in the wholesale market, disclosure would directly harm Xcel Energy by making its delivered supply cost less competitive. To the extent that Xcel Energy supply costs rise, Xcel Energy's regulated sales customers would have to pay higher natural gas rates. This result would not serve the public interest.

We have electronically filed this document with the Commission, and copies have been served on the parties on the attached service list.

Please contact Richard Derryberry at (303) 571-7104 or [richard.derryberry@xcelenergy.com](mailto:richard.derryberry@xcelenergy.com) or me at (612) 330-6613 or [amy.a.liberkowski@xcelenergy.com](mailto:amy.a.liberkowski@xcelenergy.com) if you have any questions regarding this filing.

Sincerely,

/s/

AMY A. LIBERKOWSKI  
DIRECTOR, REGULATORY PRICING & ANALYSIS

Enclosures  
c: Service List

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NOT PUBLIC DATA HAS BEEN EXCISED

Northern States Power Company  
**DEMAND COST OF GAS IMPACT - NOVEMBER 2016**  
Revised from 8/1/16 filing

Docket No. G002/M-16-649  
REVISED Attachment 1  
Schedule 2  
Page 1 of 2

**CHANGE IN CONTRACT DEMAND ENTITLEMENTS**

<u>Contract Demand Entitlement Changes</u>	<u>Volume Dth/Day</u>	<u>Current Monthly Demand Rates</u>	<u>No. of Months</u>	<u>Total Annual Cost</u>
NNG TFX (Nov - Mar) <sup>1</sup>	1,539	\$ 8.6272	5	\$ 66,386.30
NNG TFX (Apr - Oct) <sup>1</sup>	1,539	\$ 4.0000	7	\$ 43,092.00
VGT FT-A (Dec - Feb) <sup>2</sup>	(12,428)	\$ 4.7507	3	\$ (177,125.10)
VGT FT-A (Nov - Apr) <sup>2</sup>	16,371	\$ 4.7507	6	\$ 466,642.26
ANR FSS (Jan - Dec) <sup>4</sup>	(44)	\$ 1.7820	12	\$ (940.90)
ANR FSS (Jan - Dec) <sup>4</sup>	(15,300)	\$ 1.7820	12	\$ (327,175.20)
ANR FSS (Jan - Dec) <sup>4</sup>	15,300	\$ 1.7820	12	\$ 327,175.20
ANR FTS (Jan - Dec) <sup>3</sup>	(4,829)	\$ 9.4000	12	\$ (544,711.20)
ANR FTS (Jan - Dec) <sup>3</sup>	4,829	\$ 12.4690	12	\$ 722,553.61
ANR FTS (Nov - Mar) <sup>3</sup>	(15,171)	\$ 4.4000	5	\$ (333,762.00)
ANR FTS (Nov - Mar) <sup>3</sup>	15,171	\$ 5.7290	5	\$ 434,573.30
ANR FTS (Apr - Oct) <sup>3</sup>	(4,935)	\$ 4.4000	7	\$ (151,998.00)
ANR FTS (Apr - Oct) <sup>3</sup>	4,935	\$ 5.7290	7	\$ 197,908.31
Total				\$ 722,618.58

**Supplier Entitlement Changes**

Change in Supplier Reservation Fees

**[TRADE SECRET BEGINS**

Total	(14,500)	<b>TRADE SECRET ENDS]</b> (\$221,249.50)
<b>Total MN &amp; ND Demand Cost Adjustment</b>		<b>\$501,369.08</b>
Minnesota Allocation Factor (MN/ND Allocated Demand)		87.98%
<b>MN only Demand Cost Adjustment due to MN/ND Allocated Demand</b>		<b>\$ 441,104.52</b>

<sup>1</sup>NNG Sixth Revised Volume No. 1, Eleventh Revised Sheet No. 51, Effective April 1, 2016

<sup>2</sup>VGT Volume No. 1, Part 5.0 Statement of Rates, Effective April 1, 2016

<sup>3</sup>ANR Third Revised Volume No. 1, Part 4.3 - Statement of Rates, v. 1.1.0, Effective August 1, 2016 subject to refund (RP16-440)

<sup>4</sup>ANR Third Revised Volume No. 1, Part 4.9 - Statement of Rates, v. 1.1.0, Effective August 1, 2016 subject to refund (RP16-440)

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Northern States Power Company  
Demand Cost Changes from Prior Year  
Revised from 8/1/16 filing

Docket No. G002/M-16-649  
REVISED Attachment 1  
Schedule 2  
Page 2 of 2

	Volume	Rate	Months	Annual Cost	Winter Cost	Total Cost	Minnesota Deliverable	North Dakota Deliverable	Upstream/System Supply	Footnote
<b>2015 SUPPLEMENTAL FILED COSTS</b>				<b>\$31,259,124.08</b>	<b>\$23,382,206.94</b>	<b>\$54,641,331.02</b>				
<b>2015 CHANGES FILED COMPARED TO ACTUAL COSTS</b>										
Total					\$ -	\$ -				
<b>2015 ACTUAL COSTS</b>				<b>\$ 31,259,124.08</b>	<b>\$ 23,382,206.94</b>	<b>\$ 54,641,331.02</b>				
<b>CHANGES FOR 2016 FILING</b>										
<u>Contract Demand Entitlement Changes</u>										
NNG TFX (Nov - Mar)	1,539	\$ 8.6272	5		\$ 66,386.50	\$ 66,386.50	\$ 66,386.50			1
NNG TFX (Apr - Oct)	1,539	\$ 4.0000	7	\$ 43,092.00		\$ 43,092.00	\$ 43,092.00			1
VG T FT-A (Dec - Feb)	(12,428)	\$ 4.7507	3		\$ (177,125.10)	\$ (177,125.10)		\$ (177,125.10)		2
VG T FT-A (Nov - Apr)	16,371	\$ 4.7507	6		\$ 466,642.26	\$ 466,642.26		\$ 466,642.26		3
ANR FSS (Jan - Dec)	(44)	\$ 1.7820	12		\$ (940.90)	\$ (940.90)		\$ (940.90)		4
ANR FSS (Jan - Dec)	(15,300)	\$ 1.7820	12		\$ (327,175.20)	\$ (327,175.20)		\$ (327,175.20)		5
ANR FSS (Jan - Dec)	15,300	\$ 1.7820	12		\$ 327,175.20	\$ 327,175.20		\$ 327,175.20		5
ANR FTS (Jan - Dec)	(4,829)	\$ 9.4000	12	\$ (544,711.20)		\$ (544,711.20)		\$ (544,711.20)		5
ANR FTS (Jan - Dec)	4,829	\$ 12.4690	12	\$ 722,553.61		\$ 722,553.61		\$ 722,553.61		5
ANR FTS (Nov - Mar)	(15,171)	\$ 4.4000	5		\$ (333,762.00)	\$ (333,762.00)		\$ (333,762.00)		5
ANR FTS (Nov - Mar)	15,171	\$ 5.7290	5		\$ 434,573.30	\$ 434,573.30		\$ 434,573.30		5
ANR FTS (Apr - Oct)	(4,935)	\$ 4.4000	7		\$ (151,998.00)	\$ (151,998.00)		\$ (151,998.00)		5
ANR FTS (Apr - Oct)	4,935	\$ 5.7290	7		\$ 197,908.31	\$ 197,908.31		\$ 197,908.31		5
Total				\$ 220,934.41	\$ 501,684.17	\$ 722,618.58	\$ 109,478.30	\$ 289,517.16	\$ 323,623.12	

Supplier Entitlement Changes

[TRADE SECRET BEGINS

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6

Total				\$ -	\$ (221,249.50)	\$ (221,249.50)	\$ (221,249.50)	\$ -	\$ -	<b>TRADE SECRET ENDS]</b>
<b>TOTAL OF 2016 CHANGES</b>				<b>\$ 220,934.41</b>	<b>\$ 280,434.67</b>	<b>\$ 501,369.08</b>	<b>\$ (111,771.20)</b>	<b>\$ 289,517.16</b>	<b>\$ 323,623.12</b>	
<b>2016 COSTS</b>				<b>\$ 31,480,058.49</b>	<b>\$ 23,662,641.61</b>	<b>\$ 55,142,700.10</b>				
<b>2016 CHANGES AS A PERCENTAGE OF SYSTEM RESOURCES</b>							-28%	72%		7

Footnote

- Incremental capacity added near St. Cloud, MN starting November 1, 2016.
- Expired winter firm transport capacity, December 1, 2015 through February 28, 2016.
- Renewed firm transport capacity serving Fargo, ND, December 1, 2016 through February 28, 2017.
- Volume additions on ANR transport and storage agreements. Upstream capacity serves demand in both MN and ND.
- Interim Rate approved pending approval of Rate Case Settlement (RP16-440) subject to refund.
- Expired peaking supply contract with demand charges in effect November 1, 2015 through March 31, 2016.
- Upstream/system supply refers to costs that are incurred to serve all customers on the system across MN and ND. For purposes of this schedule, it is reasonable to split these costs between MN and ND using the overall system jurisdictional factors.

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Docket No. G002/M-16-649  
REVISED Attachment 2  
Schedule 1  
Page 1 of 2

Northern States Power Company  
**COMPANY DEMAND PROFILE**  
2016-2017 Heating Season  
Revised from 8/1/15 filing

Contract No.	Type of Capacity or Entitlement	Current Amount Dth or MMBtu	Proposed Change Dth or MMBtu	Proposed Amount Dth or MMBtu	Contract Length and Expiration Date	Change Description	% of Peak Day Entitlement
<b>Capacity Entitlements</b>							
112183	NNG TF12 BASE (Max)	104,117	0	104,117	10 yrs - 10/31/27	Discount Pkg Renewal	11.97%
112183	NNG TF12 VARIABLE (Max)	0	0	0	10 yrs - 10/31/27	Discount Pkg Renewal	0.00%
112182	NNG TF12 BASE (Disc)	26,626	0	26,626	10 yrs - 10/31/27	Discount Pkg Renewal	3.06%
112182	NNG TF12 VARIABLE (Disc)	67,901	0	67,901	10 yrs - 10/31/27	Discount Pkg Renewal	7.80%
112183	NNG TF5 (Max)	62,415	0	62,415	10 yrs - 10/31/27	Discount Pkg Renewal	7.17%
112182	NNG TF5 (Disc)	29,599	0	29,599	10 yrs - 10/31/27	Discount Pkg Renewal	3.40%
111739	NNG TFX (Nov-Mar)	28,500	0	28,500	5 yrs - 10/31/22	Discount Pkg Renewal	3.28%
112185	NNG TFX (Disc, Nov-Mar)	58,184	0	58,184	10 yrs - 10/31/27	Discount Pkg Renewal	6.69%
112185	NNG TFX (Disc, 12-month)	26,221	0	26,221	10 yrs - 10/31/27	Growth election	3.01%
112185	NNG TFX 5 (Disc)	6,493	0	6,493	10 yrs - 10/31/27	Discount Pkg Renewal	Summer Only
112185	NNG TFX 2 (Disc)	2,168	0	2,168	10 yrs - 10/31/27	Discount Pkg Renewal	Summer Only
112186	NNG TFX (Max)	49,005	0	49,005	10 yrs - 10/31/27	Discount Pkg Renewal	5.63%
112186	NNG TFX 2 (Max)	7,950	0	7,950	10 yrs - 10/31/27	Discount Pkg Renewal	Summer Only
112186	NNG TFX 5 (Max)	27,253	0	27,253	10 yrs - 10/31/27	Discount Pkg Renewal	Summer Only
112184	NNG TFX (Disc)	25,000	0	25,000	10 yrs - 10/31/27	Discount Pkg Renewal	2.87%
122067	NNG TFX (Disc, Nov-Mar)	7,834	1,539	9,373	10 yrs - 10/31/27	Growth election/Disc Renewal	1.08%
122067	NNG TFX 7 (Disc)	7,834	1,539	9,373	10 yrs - 10/31/27	Growth election/Disc Renewal	Summer Only
122068	NNG TFX (Nov-Mar)	8,875	0	8,875	10 yrs - 10/31/27	Discount Pkg Renewal	1.02%
122068	NNG TFX 7 (Max)	8,875	0	8,875	10 yrs - 10/31/27	Discount Pkg Renewal	Summer Only
<b>[TRADE SECRET BEGINS</b>							
VGT to NNG Chisago (1)							
VGT Pierz to NNG (2)							
Capacity Release							
AF0044	VGT FT-A 12 Mos.	29,002	0	29,002	5 yrs - 10/31/18		3.33%
AF0044	VGT FT-A (Nov-Mar)	4,239	0	4,239	5 yrs - 10/31/18		0.49%
AF0103	VGT FT-A 12 Mos.	10,000	0	10,000	5 yrs - 10/31/19		1.15%
AF0037	VGT FT-A 12 Mos.	15,600	0	15,600	8.5 yrs - 10/31/17		1.79%
AF0116	VGT FT-A 12 Mos.	1,903	0	1,903	5 yrs - 5/31/21	Contract Renewal	0.22%
AF0217	VGT FT-A 12 Mos.	72,213	0	72,213	8 yrs - 10/31/17		8.30%
AF0218	VGT FT-A 12 Mos.	15,000	0	15,000	5 yrs - 10/31/19		1.72%
AF0241	VGT FT-A (Dec-Feb)	12,428	(12,428)	0	3 mos - 2/28/2016	Contract expired	0.00%
<b>TBD</b>	<b>VGT FT-A (Nov-Apr)</b>	<b>0</b>	<b>16,371</b>	<b>16,371</b>	<b>6 mos - 4/30/2017</b>	<b>Capacity acquisition</b>	<b>1.88%</b>
WBI FT-1097		8,000	0	8,000	26.5 yrs - 10/31/19		0.92%
WBI FT-157		461	0	461	20 yrs - 07/01/33		0.05%
City Gate Deliveries		24,000	0	24,000	10 yrs - 10/31/17		2.76%
LP Peak Shaving		63,200	26,800	90,000			10.34%
LNG Peak Shaving		156,000	0	156,000			17.93%
<b>Total Design Day Capacity</b>		<b>839,380</b>		<b>870,123</b>			<b>100%</b>
Heating Season Total		839,380		870,123			
Non-Heating Season Total		437,617		439,156			
<b>Miscellaneous Entitlements with Reservation Fees</b>							
<u>Additional Pipeline Entitlements</u>							
ANR FTS-106209 12 Mos. (1)		4,829	0	4,829	3 yrs - 03/31/18		
ANR FTS-106211 (Summer) (1)		4,935	0	4,935	3 yrs - 03/31/18		
ANR FTS-106211 (Winter) (1)		15,171	0	15,171	3 yrs - 03/31/18		
ANR FTS-114492 12 Mos. (1)		66,500	0	66,500	9 yrs - 10/31/2019		
GLT FT171836 (2)		3,509	0	3,509	5 yrs - 03/31/19		
GLT FT171836 (2)		4,475	0	4,475	5 yrs - 03/31/19		
GLT Backhaul FT18130 (2)		895	0	895	3 yrs - 10/31/17	Contract extension	
GLT Backhaul FT18129 (2)		9,248	0	9,248	3 yrs - 03/31/18	Contract extension	
NNG SMS (3)		30,650		30,650	15 yrs - 10/31/17		
VGT OBA (3)		7,400		7,400	14 yrs - 10/31/16		
<u>Supply Entitlements (4)</u>							
<b>[TRADE SECRET BEGINS</b>							
<b>TRADE SECRET ENDS]</b>							
<u>Storage Entitlements - Deliverability</u>							
ANR Pipeline Storage		15,344	(44)	15,300	3 yrs - 3/31/18	Fuel adjustment	
ANR Storage		9,248	0	9,248	3 yrs - 3/31/18	Contract extension	
FDD Service		140,230		140,230	4 yrs - 5/31/18		
FDD Service		78,050		78,050	15 yrs - 5/31/27		
<u>Storage Entitlements - Capacity</u>							
ANR Pipeline Storage		951,328	(328)	951,000	3 yrs - 3/31/18	Fuel adjustment	
ANR Storage		1,165,000	0	1,165,000	3 yrs - 3/31/18	Contract extension	
FDD Service		8,085,000	0	8,085,000	4 yrs - 5/31/18		
FDD Service		4,500,000	0	4,500,000	15 yrs - 5/31/27		

(1) Not included in total peak deliverability -- feeds VGT (capacity not additive)  
(2) Not included in total peak deliverability -- feeds NNG (capacity not additive).  
(3) Not included in total peak deliverability -- entitlement delivered by or associated with TF or FT-A service.  
(4) Supply contracts containing reservation fees.

**MINNESOTA STATE RATE IMPACT**

REVISED Attachment 2

Revised from 8/1/16 filing

Schedule 2

Date to implement proposed changes: November 1, 2016

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\$/Dth

	Last Rate Case (G002/GR-09- 1153)	Last Approved Demand Change (G002/M-15- 727)	Last Month PGA: October 2016	Estimated Nov. 2016 PGAs with Proposed Demand Entitlement Changes	Change From Last Rate Case	Change From Last Approved Demand Change	Percent Change (%) From Last Month PGA	Change (\$) From Last Month PGA
<b>Residential</b>								
Commodity Cost of Gas (WACOG)	\$5.5042	\$2.8402	\$2.9663	\$2.8801	-47.67%	1.40%	-2.91%	(\$0.0862)
Demand Cost of Gas (1)	\$0.9008	\$0.8220	\$0.8441	\$0.8350	-7.30%	1.58%	-1.08%	(\$0.0091)
Distribution Margin	\$1.8591	\$1.8591	\$1.8591	\$1.8591	0.00%	0.00%	0.00%	\$0.0000
Total per Dth Cost	\$8.2641	\$5.5213	\$5.6695	\$5.5742	-32.55%	0.96%	-1.68%	(\$0.0953)
Average Annual Usage (Dth)	87	87	87	87				
Average Annual Total Cost	\$718.60	\$480.10	\$492.99	\$484.70	-32.55%	0.96%	-1.68%	(\$8.29)
Average Annual Total Demand Cost of Gas	\$78.33	\$71.48	\$73.40	\$72.61				(\$0.79)
<b>Small Commercial</b>								
Commodity Cost of Gas (WACOG)	\$5.4871	\$2.8402	\$2.9663	\$2.8801	-47.51%	1.40%	-2.91%	(\$0.0862)
Demand Cost of Gas (1)	\$0.8984	\$0.8254	\$0.8397	\$0.8306	-7.55%	0.63%	-1.08%	(\$0.0091)
Distribution Margin	\$1.2331	\$1.2331	\$1.2331	\$1.2331	0.00%	0.00%	0.00%	\$0.0000
Total per Dth Cost	\$7.6186	\$4.8987	\$5.0391	\$4.9438	-35.11%	0.92%	-1.89%	(\$0.0953)
Average Annual Usage (Dth)	284	284	284	284				
Average Annual Total Cost	\$2,163.87	\$1,391.35	\$1,431.23	\$1,404.16	-35.11%	0.92%	-1.89%	(\$27.07)
Average Annual Total Demand Cost of Gas	\$255.17	\$234.43	\$238.50	\$235.91				(\$2.58)
<b>Large Commercial</b>								
Commodity Cost of Gas (WACOG)	\$5.4871	\$2.8402	\$2.9663	\$2.8801	-47.51%	1.40%	-2.91%	(\$0.0862)
Demand Cost of Gas (1)	\$0.8917	\$0.8099	\$0.8397	\$0.8306	-6.85%	2.56%	-1.08%	(\$0.0091)
Distribution Margin	\$1.2315	\$1.2315	\$1.2315	\$1.2315	0.00%	0.00%	0.00%	\$0.0000
Total per Dth Cost	\$7.6103	\$4.8816	\$5.0375	\$4.9422	-35.06%	1.24%	-1.89%	(\$0.0953)
Average Annual Usage (Dth)	1,463	1,463	1,463	1,463				
Average Annual Total Cost	\$11,131.14	\$7,140.04	\$7,368.06	\$7,228.67	-35.06%	1.24%	-1.89%	(\$139.39)
Average Annual Total Demand Cost of Gas	\$1,304.24	\$1,184.59	\$1,228.18	\$1,214.87				(\$13.31)

(1) Includes demand smoothing



**MINNESOTA STATE RATE IMPACT**

Revised from 8/1/16 filing

REVISED Attachment 2

Schedule 2

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	Last Rate Case (G002/GR-09- 1153)	Last Approved Demand Change (G002/M-15- 727)	Last Month PGA: October 2016	Estimated Nov. 2016 PGAs with Proposed Demand Entitlement Changes	Change From Last Rate Case	Change From Last Approved Demand Change	Percent Change (%) From Last Month PGA	Change (\$) From Last Month PGA
<b>Small Interruptible</b>								
Commodity Cost of Gas (WACOG)	\$5.4926	\$2.8402	\$2.9663	\$2.8801	-47.56%	1.40%	-2.91%	(\$0.0862)
Demand Cost of Gas (1)	\$0.0000	\$0.0000	\$0.0000	\$0.0000				\$0.0000
Distribution Margin	\$0.9635	\$0.9635	\$0.9635	\$0.9635	0.00%	0.00%	0.00%	\$0.0000
Total per Dth Cost	\$6.4561	\$3.8037	\$3.9298	\$3.8436	-40.47%	1.05%	-2.19%	(\$0.0862)
Average Annual Usage (Dth)	7,936	7,936	7,936	7,936				
Average Annual Total Cost	\$51,236.58	\$30,186.87	\$31,187.61	\$30,503.52	-40.47%	1.05%	-2.19%	(\$684.09)
Average Annual Total Demand Cost of Gas	\$0.00	\$0.00	\$0.00	\$0.00				\$0.00
<b>Medium Interruptible</b>								
Commodity Cost of Gas (WACOG)	\$5.4696	\$2.8402	\$2.9663	\$2.8801	-47.34%	1.40%	-2.91%	(\$0.0862)
Demand Cost of Gas (1)	\$0.0000	\$0.0000	\$0.0000	\$0.0000				\$0.0000
Distribution Margin	\$0.4751	\$0.4751	\$0.4751	\$0.4751	0.00%	0.00%	0.00%	\$0.0000
Total per Dth Cost	\$5.9447	\$3.3153	\$3.4414	\$3.3552	-43.56%	1.20%	-2.50%	(\$0.0862)
Average Annual Usage (Dth)	64,709	64,709	64,709	64,709				
Average Annual Total Cost	\$384,678.21	\$214,531.78	\$222,691.62	\$217,113.68	-43.56%	1.20%	-2.50%	(\$5,577.94)
Average Annual Total Demand Cost of Gas	\$0.00	\$0.00	\$0.00	\$0.00				\$0.00
<b>Large Interruptible</b>								
Commodity Cost of Gas (WACOG)	\$5.5006	\$2.8402	\$2.9663	\$2.8801	-47.64%	1.40%	-2.91%	(\$0.0862)
Demand Cost of Gas (1)	\$0.0000	\$0.0000	\$0.0000	\$0.0000				\$0.0000
Distribution Margin	\$0.4346	\$0.4346	\$0.4346	\$0.4346	0.00%	0.00%	0.00%	\$0.0000
Total per Dth Cost	\$5.9352	\$3.2748	\$3.4009	\$3.3147	-44.15%	1.22%	-2.53%	(\$0.0862)
Average Annual Usage (Dth)	745,979	745,979	745,979	745,979				
Average Annual Total Cost	\$4,427,543.89	\$2,442,940.52	\$2,537,008.51	\$2,472,705.09	-44.15%	1.22%	-2.53%	(\$64,303.42)
Average Annual Total Demand Cost of Gas	\$0.00	\$0.00	\$0.00	\$0.00				\$0.00

(1) Includes demand smoothing

**MINNESOTA STATE RATE IMPACT**

Revised from 8/1/16 filing

REVISED Attachment 2

Schedule 2

Page 3 of 4

**Summary - Change from most recent PGA**

<u>Customer Class</u>	<u>Commodity</u> <u>Change</u> <u>(\$/Dth)</u>	<u>Commodity</u> <u>Change</u> <u>(Percent)</u>	<u>Demand</u> <u>Change</u> <u>(\$/Dth)</u>	<u>Demand</u> <u>Change</u> <u>(Percent)</u>	<u>Demand</u> <u>Annual</u> <u>Change</u> <u>(\$/Dth)</u>	<u>Total</u> <u>Annual</u> <u>Change</u> <u>(\$/Dth)</u>	<u>Total</u> <u>Annual</u> <u>Change</u> <u>(Percent)</u>
Residential	(\$0.0862)	-2.91%	(\$0.0091)	-1.08%	(\$0.79)	(\$8.29)	-1.68%
Small Commercial	(\$0.0862)	-2.91%	(\$0.0091)	-1.08%	(\$2.58)	(\$27.07)	-1.89%
Large Commercial	(\$0.0862)	-2.91%	(\$0.0091)	-1.08%	(\$13.31)	(\$139.39)	-1.89%
Small Interruptible	(\$0.0862)	-2.91%	\$0.0000	NA	\$0.00	(\$684.09)	-2.19%
Medium Interruptible	(\$0.0862)	-2.91%	\$0.0000	NA	\$0.00	(\$5,577.94)	-2.50%
Large Interruptible	(\$0.0862)	-2.91%	\$0.0000	NA	\$0.00	(\$64,303.42)	-2.53%

**DERIVATION OF CURRENT PGA COSTS**

REVISED Attachment 2

Nov. 2016 - Projected Costs (Actual prices will be determined Nov.1, 2016)\*

Schedule 2

Revised from 8/1/16 filing

Page 4 of 4

**Demand Cost (Res, Sm & Lg Commercial Firm)**

	<u>Annual Cost</u>	<u>Winter Cost</u>	<u>Total</u>
1. MN & ND Total Demand	\$31,480,058	\$23,662,642	
2. x <u>Minnesota Design Day Ratio (2016 Demand Entitlement Filing)</u>	87.98%	87.98%	
3. Annual System Demand Allocation to MN	\$27,696,155	\$20,818,392	
4. <u>MN State Design Day (2016 Demand Entitlement Filing)</u>	725,225	725,225	
5. - <u>Small &amp; Large Demand Billed Dth (2016 Demand Entitlement Filing)</u>	22,679	22,679	
6. Non-Demand Billed Design Day Dkt (4 - 5)	702,546	702,546	
7. Non-Demand Billed Allocation (3 x 6 / 4)	\$26,830,050	\$20,167,366	
8. Demand Billed Cost Allocation (3 - 7)	\$866,105	\$651,026	
9. MN Annual / Seasonal Firm Therm Sales (Forecast)	563,905,325	420,909,345	
10. Demand Unit Cost \$/Therm (7 / 9)	\$0.04758	\$0.04791	\$0.09549
11. Demand Cost True-up - Residential, Oct-May			\$0.00000
12. Demand Cost True-up - Commercial, Oct-May			\$0.00000
13. Total Demand Rate - Residential (10 + 11)			\$0.09549
14. Total Demand Rate -Commercial (10 + 12)			\$0.09549

**Demand Cost (Demand Billed)**

15. Cost Allocated to Demand Billed (8)	\$866,105	\$651,026	\$1,517,131
16. / <u>Annual Contract Billing Demand (2016 Demand Entitlement Filing)</u>			2,721,480
17. Monthly Commercial Demand Billed Demand Rate			\$0.55747

**Commodity Costs**

	<u>Monthly Cost</u>
18. NNG Annual/Best Effort/Viking/WBI/Xcel Energy Pk Shv	\$24,611,254
19. x <u>MN Portion of Monthly Retail Sales</u>	86.56%
20. MN Portion of Monthly Commodity Costs	\$21,303,501
21. MN Budgeted Calendar Month Retail Therm Sales	73,969,112
22. Commodity Unit Cost \$/Therm (20 / 21)	\$0.28801

**Total Gas Cost per Therm**

23. Residential (13 + 22)	\$0.38350
24. Small & Large Commercial (14 +22)	\$0.38350
25. Small & Large Demand Billed - Demand (17)	\$0.55747
26. Small & Large Demand Billed - Commodity; All Interruptible (22)	\$0.28801

\*Commodity costs are projected and for illustrative purposes only.

**PUBLIC DOCUMENT**  
**NOT PUBLIC DATA HAS BEEN EXCISED**

Northern States Power Company  
**SUMMARY OF COMPANY HEDGE TRANSACTIONS**  
2016-2017 Heating Season

Docket No. G002/M-16-649  
REVISED Attachment 3  
Schedule 1  
Page 2 of 2

Revised from 8/1/16 filing

Transaction Date	Hedge Instrument	Counterparty	Premium (\$/Dth)	Call Strike Price	Put Strike Price	Put Strike Price	Daily Vol (Dth)	Basis Point	Monthly Volumes (Dth)				Total Volume (Dth)	Total Dollars
									November	December	January	February		

[TRADE SECRET BEGINS



TRADE SECRET ENDS]

## CERTIFICATE OF SERVICE

I, Carl Cronin, hereby certify that I have this day served copies of the foregoing document on the attached list of persons.

xx by depositing a true and correct copy thereof, properly enveloped with postage paid in the United States mail at Minneapolis, Minnesota

xx electronic filing

**Docket No. G002/M-16-649**

Dated this 1st day of November 2016

/s/

---

Carl Cronin  
Regulatory Administrator

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