

705 West Fir Ave. PO Box 176 Fergus Falls, MN 56538-0176 1-877-267-4764

November 1, 2017

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

Re: Docket No. G004/M-17-521

Informational Update Filing on Great Plains' 2017 Demand Entitlement Filing

Dear Mr. Wolf:

Great Plains Natural Gas Co. (Great Plains), a Division of MDU Resources Group, Inc., submitted its Demand Entitlement Filing on June 30, 2017 (June 30 DEQ) in the above referenced docket.

TF12 Reallocation:

As stated in the June 30 DEQ filing, Great Plains agreed to update the Commission on the allocation of Northern's TF12 Base and TF12 Variable in place for the 2017-2018 season. Great Plains was informed that Northern is decreasing the TF12 Base by 567 dk to 4,854 dk per day, while increasing the TF12 Variable by 567 dk to 2,681 dk per day. This new allocation will be effective November 1, 2017.

Table 1
TF12 Changes to Initial Filing

	Initial Filing (Dk)	Change (Dk)	Update (Dk)
TF12 Base	5,421	(567)	4,854
TF12 Variable	2,114	567	2,681

Updated Demand Costs:

In the June 30 DEQ filing, Great Plains proposed to place a bid for up to 2,500 Dk/day of incremental capacity through an open season held by Viking Gas Transmission (VGT). The proposed bid of 2,500 Dk/day for a five-year term consisted of 1,600 Dk/day to replace the 1,400 Dk/day that expired after the 2016-2017 heating season and 900 Dk/day to be utilized in future years. Great Plains was unable to secure the additional incremental capacity during VGT's open season. Great Plains has entered into a contractual agreement with BP Canada Energy Marketing Corp. for a seasonal firm Capacity purchase of 1,600 Dk/day at a rate cost of \$0.155 per Dk for the 2017-2018 heating season (November – March). This contract replaces the 1,400 Dk/day contract that expired at the end of the 2016-2017 heating season, and provides a 5.2% reserve margin for the upcoming heating season.

Table 2 Updated Demand Costs

Interstate Pipelines	Volumes Dk/day	Rates \$	Months	Demand Costs \$
Viking				
FT-A - Zone 1-1 (Cat. 3)	8,000	\$4.3706	12	\$419,578
FT-A - Zone 1-1 (Cat. 3)	5,000	4.3706	12	262,236
FT-A Seasonal (Cat. 3)	2,000	4.3706	5	43,706
BP Contract (Firm Demand)	1,600	4.7120	5	37,696
NNG				
TFX - Summer	13,000	5.6830	7	517,153
TFX - Winter	13,000	15.1530	5	984,945
TFX Seasonal (Nov Mar.)	2,000	15.1530	5	151,530
TF12 Base - Summer	4,854	5.6830	7	193,097
TF12 Base - Winter	4,854	10.2300	5	248,282
TF12 Variable - Summer	2,681	5.6830	7	106,653
TF12 Variable - Winter	2,681	13.8660	5	185,874
TF5	3,410	15.1530	5	258,359
TFX - Winter	5,200	15.1530	5	393,978
TFX - Annual (Summer Rate)	2,000	5.6830	7	79,562
TFX - Annual (Winter Rate)	2,000	15.1530	5	151,530
TFX Negotiated Contract	1,000	26.8918	5	134,459
FDD-1 Reservation	4,640	1.7140	12	95,436
Interruptible Demand Credit				(348,552)
Total Demand Charges				\$3,915,522

The total customer impact of the updated demand profile compared to rates effective July 1, 2017 is an increase of \$0.0066 per dk as shown on Exhibit C. Please see Table 3 below for the annual rate impacts, as originally filed and reflecting the changes noted above.

Table 3
Annual Demand Rate Impacts

Filing	Residential Customer (77.9 Dk)	Total Change Res (%)	Firm General Service (434.4 Dk)	Total Change FGS (%)
June 30, 2017	\$2.70	2.7	\$15.03	2.7
Change due to update	(\$2.19)	(2.2)	(\$12.16)	(2.2)
November 1, 2017	\$0.51	0.5	\$2.87	0.5

Great Plains' analysis indicates that the portfolio in place for the 2017-2018 heating season will allow the Company to adequately serve customers.

In support of updating Docket No. G004/M-17-521, Great Plains has updated the following exhibits to show the impact of the changes listed above.

Exhibit A - Design Day Capacity

Exhibit B - Demand Profile

Exhibit C – Rate Impacts

Exhibit D – Demand Entitlement Analysis

Per the Department's request in its Response Comments to Docket No. G004/M-15-645, dated August 31, 2016, Great Plains has included a red-line version of the Exhibits. Please see Exhibit E.

If you have any questions regarding this filing, please contact me at (701) 222-7856, or Brian M. Meloy, at (612) 335-1451.

Sincerely,

/s/ Tamie A. Aberle

Tamie A. Aberle Director of Regulatory Affairs

cc: Brian M. Meloy

GREAT PLAINS NATURAL GAS CO. DEMAND ENTITLEMENT FILING 2017 - 2018 HEATING SEASON DESIGN DAY - NOVEMBER 2017 -UPDATE-

Pipeline	Custo Dk/day	omer Factor	rs 1/ RSqr	Design HDD 2/	No. of Customers 3/	Projected Customers 4/	Peak/ Customer	Projected Peak Day (dk)	L&UA 5/	Projected Design	Proposed Capacity	Reserve
VGT												
Crookston	0.04204	0.01409	0.98198	96	2,524	2,554	1.39468	3,561	25	3,586		
North 4	0.05467	0.01332	0.95988	91	7,145	7,191	1.26679	9,106	64	9,170		
Wahpeton	0.07393	0.01417	0.98646	91	2,195	2,231	1.36340	3,044	21	3,065		
Total VGT					11,864	11,976		15,711	110	15,821		
NNG	0.05342	0.01619	0.98566	83	11,946	12,021	1.39719	16,794	118	16,912_		
Total					23,810	23,997		32,505	228	32,733	34,445	5.2%

^{1/} Use per customer factors based on regression analysis for the 36 months ending March 2017.

^{2/} Design Heating Degree Days Base 60 degrees F.

^{3/} Reflects monthly average for December 2016 - February 2017.

^{4/} Customer growth is based on regression analysis for the 36 months ending March 2017 with composite growth rates of: Crookston = 1.32%, North = 0.87%, Wahpeton = 1.13%, South = 0.63%.

^{5/} Lost and Unaccounted for Gas percentage of 0.7%.

GREAT PLAINS NATURAL GAS CO. DEMAND ENTITLEMENT FILING 2017 - 2018 HEATING SEASON DEMAND PROFILE EFFECTIVE NOVEMBER 1, 2017 -UPDATE-

	Authorized	Proposed	Proposed	Contract	Expiration
Type of Capacity or Entitlement	Amount	Change	Amount	Length	Date
Demand Profile (dk) 1/					
<u>VGT</u>				_	200 DE D. 100E)
FT-A - Zone 1-1 (Cat. 3)	8,000	0	8,000	5 years	10/31/22
FT-A - Zone 1-1 (Cat. 3)	5,000	0	5,000	5 years	10/31/22
FT-A (Cat. 3) Seasonal (November - March)	2,000	0	2,000	5 years	10/31/22
FT-A (November - March)	1,400	(1,400)	0	5 months	3/31/17
BP Contract (Firm Demand)	0	1,600	1,600	5 months	3/31/18
NNG					
TF12 Base (Summer & Winter)	5,421	(567)	4,854	5 years	10/31/19
TF12 Variable (Summer & Winter)	2,114	567	2,681	5 years	10/31/19
TF5 (November - March)	3,410	0	3,410	5 years	10/31/19
TFX Negotiated (November - March)	1,000	0	1,000	10.5 years	3/31/25
TFX Seasonal (November - March)	5,200	0	5,200	5 years	10/31/19
TFX (Annual)	2,000	(1,300) 2/	700	10 years	10/31/25
TFX Seasonal - Capacity Release	(1,000)	1,000	0	5 months	3/31/17
TF12 - Capacity Release	(300)	300	0	4 months	3/31/17
Subtotal	34,245	200	34,445		
Supplemental Capacity					
TFX Seasonal (November - March)	2,000	0	2,000	5 years	10/31/19
TFX (Annual)	13,000	0	13,000	11.5 years	3/31/24
TFX (Annual)	0	1,300 2/	1,300	10 years	10/31/25
Storage					
FDD-1 Reservation	4,640	0	4,640	5 years	5/31/20
Heating Season Total Capacity:	34,245	200	34,445		
Non-Heating Season Total Capacity:	22,535	0	22,535		
Forecasted Heating Season Design Day:	32,398	335	32,733		
Estimated Non-Heating Season Design Day:	17,831	195	18,026		
Heating Season Capacity: Surplus/(Shortage)	1,847	(135)	1,712		
Non-Heating Season Capacity: Surplus/(Shortage)	4,704	(195)	4,509		

^{1/} Minnesota communities plus Wahpeton, ND.

^{2/} Northern Natural capacity to be used as supplemental capacity to deliver gas to Viking at Chisago for "back-haul" transport to Vergas, MN.

GREAT PLAINS NATURAL GAS CO. DEMAND PROFILE -UPDATE-

2015-2016 Heating Season	1	2016-2017 Heating Season		2017-2018 Heating Season		
G004/M-15-645	Quantity (dk)	G004/M-16-557	Quantity (dk)	G004/M-17-521	Quantity (dk)	Difference
FT-A (Cat. 3) (12 months)	8,000	FT-A (Cat. 3) (12 months)	8,000	FT-A (Cat. 3) (12 months)	8,000	0
FT-A (Cat. 1) (12 months)	5,000	FT-A (Cat. 1) (12 months)	5,000	FT-A (Cat. 3) (12 months)	5,000	0
FT-A (November - March)	2,000	FT-A (November - March)	2,000	FT-A (Cat. 3) (November - March)	2,000	0
BP Seasonal (Firm Gas to Chisago) 1/	730	BP Seasonal (Firm Gas to Chisago)		BP Seasonal (Firm Gas to Chisago)	u n	0
FT-A (November - March)	700	FT-A (November - March)	1,400	FT-A (November - March)	10	(1,400)
and the service of the expension of the service of	SAPESTICA 1			BP Contract (Firm Demand)	1,600	1,600
TFX (12 months)	13,000	TFX (12 months)	13,000	TFX (12 months)	13,000	0
TFX (November - March)	2,000	TFX (November - March)	2,000	TFX (November - March)	2,000	0
TF-12 Base	4,604	TF-12 Base	5,421	TF-12 Base	4,854	(567)
TF-12 Variable	2,931	TF-12 Variable	2,114	TF-12 Variable	2,681	567
TF-5 (November- March)	3,410	TF-5 (November- March)	3,410	TF-5 (November- March)	3,410	0
TFX (November - March)	5,200	TFX (November - March)	5,200	TFX (November - March)	5,200	0
TFX - Negotiated (November - March)	1,000	TFX - Negotiated (November - March)	1,000	TFX - Negotiated (November - March)	1,000	0
TFX (Annual)	2,000	TFX (Annual)	2,000	TFX (Annual) 2/	2,000	0
TFX - Capacity Release	(1,300)	TFX - Capacity Release	(1,000)	TFX - Capacity Release	=	1,000
		TF-12 - Capacity Release	(300)	TF-12 - Capacity Release	=	300
FDD-1 Reservation	4,640	FDD-1 Reservation	4,640	FDD-1 Reservation	4,640	0
Heating Season Total Capacity	33,545	Heating Season Total Capacity	34,245	Heating Season Total Capacity 3/	34,445	200
Non-Heating Season Total Capacity	22,535	Non-Heating Season Total Capacity	22,535	Non-Heating Season Total Capacity	22,535	0
Total Entitlement (Including Peak Shaving)	33,545	Total Entitlement	34,245	Total Entitlement 3/	34,445	200
Total Annual Transportation	22,535	Total Annual Transportation	22,535	Total Annual Transportation 3/	21,235	(1,300)
Total Season Transportation	11,010	Total Season Transportation	11,710	Total Season Transportation	13,210	1,500
Percent TF-5	31.16%	Percent TF-5	31.16%	Percent TF-5	31.16%	
Total Percent Seasonal	32.82%	Total Percent Seasonal	34.19%	Total Percent Seasonal	38.35%	4.16%

^{1/} Does not impact demand profile.

^{2/} Demand profile includes 700 dk: Remaining 1,300 dk used to deliver gas to Viking interconnect at Chisago for 1,300 dk FT-A (12 Months) "back-haul" contract to Vergas, MN.

^{3/} Includes 700 dk of total 2,000 dk from TFX (Annual) contract for capacity and demand profile calculation.

GREAT PLAINS NATURAL GAS CO. RATE EFFECT OF PROPOSED DEMAND - NOVEMBER 1, 2017 NORTH DISTRICT -UPDATE-

						% Change from		Change from
	Last Rate	Last Demand	July 2017	November 2017	Last Rate	Last Demand	July 2017	July 2017
	Case 1/	Change 2/	PGA Rates	PGA Rates 3/	Case	Change	PGA Rates	PGA Rates
Residential								
Commodity Cost of Gas 4/	\$2.60630	\$2.94760	\$2.95690	\$3.06040	17.4%	3.8%	3.5%	\$0.10350
Demand Cost of Gas	1.18900	1.63600	1.26110	1.26770	6.6%	-22.5%	0.5%	0.00660
Commodity Margin 5/	2.25960	2.02620	2.27353	2.41923	7.1%	19.4%	6.4%	0.14570
Total Rate	\$6.05490	\$6.60980	\$6.49153	\$6.74733	11.4%	2.1%	3.9%	\$0.25580
Average Annual Usage (dk)	77.9	77.9	77.9	77.9				
Average Annual Cost of Gas	\$471.68	\$514.90	\$505.69	\$525.62	11.4%	2.1%	3.9%	\$19.93
Firm General Service							8 =920	
Commodity Cost of Gas 4/	\$2.60630	\$2.94760	\$2.95690	\$3.06040	17.4%	3.8%	3.5%	\$0.10350
Demand Cost of Gas	1.18900	1.63600	1.26110	1.26770	6.6%	-22.5%	0.5%	0.00660
Commodity Margin 5/	1.84870	1.65710	1.86263	1.97153	6.6%	19.0%	5.8%	0.10890
Total Rate	\$5.64400	\$6.24070	\$6.08063	\$6.29963	11.6%	0.9%	3.6%	\$0.21900
Average Annual Usage (dk)	434.4	434.4	434.4	434.4				
atte 1452 (S N							25 9/200	01400 <u>28 1440</u> 0 - 1144 mil
Average Annual Cost of Gas	\$2,451.75	\$2,710.96	\$2,641.43	\$2,736.56	11.6%	0.9%	3.6%	\$95.13
- 100								

	Commod	ity Change	Demand	d Change	Total	Average Annual	
Customer Class	(\$/dk)	(Percent)	(\$/dk)	(Percent)	(\$/dk)	(Percent)	Bill Change
Residential	\$0.1035	3.5%	\$0.0066	0.5%	\$0.2558	3.9%	\$19.93
Firm General Service	0.1035	3.5%	0.0066	0.5%	0.2190	3.6%	\$95.13

^{1/} Consolidated Base Cost of Gas effective July 1, 2017 in update to Docket No. G004/MR-16-834. Commodity margin effective January 1, 2017 in Docket No. G004/GR-15-879.

^{2/} Demand in Docket No. G004/AA-16-885, effective November 1, 2016: Commodity Margin includes interim adjustment of 17.671% effective January 1, 2016 - Docket No. G004/GR-15-879.

^{3/} Consolidated commodity and demand costs proposed in Docket No. G004/M-17-521 effective November 1, 2017.

^{4/} Historical periods include GCR rate of \$0.0762 (effective September 1, 2016 - Docket No. G004/AA-16-719); November includes GCR rate of \$0.1748 (effective September 1, 2017 - Docket No. G004/AA-17-493).

^{5/} Historical periods include CCRA of \$0.2125 (effective January 1, 2017 - Docket No. G004/M-16-384) and GAP of \$0.01393 (effective June 1, 2017 - Docket No. G004/M-16-495); November includes CCRA of \$0.2097 (effective September 1, 2017 - Docket No. G004-M-17-338), GAP of \$0.01393, GUIC of \$0.1485 for residential and \$0.1117 for firm general (effective November 1, 2017 - Docket No. G004/M-16-1066).

GREAT PLAINS NATURAL GAS CO. RATE EFFECT OF PROPOSED DEMAND - NOVEMBER 1, 2017 SOUTH DISTRICT -UPDATE-

						% Change from		Change from
	Last Rate	Last Demand	July 2017	November 2017	Last Rate	Last Demand	July 2017	July 2017
	Case 1/	Change 2/	PGA Rates	PGA Rates 3/	Case	Change	PGA Rates	PGA Rates
Residential		(
Commodity Cost of Gas 4/	\$2.69280	\$3.04810	\$3.04340	\$3.06040	13.7%	0.4%	0.6%	\$0.01700
Demand Cost of Gas	1.18900	1.23410	1.26110	1.26770	6.6%	2.7%	0.5%	0.00660
Commodity Margin 5/	1.75920	1.57430	1.77313	1.91883	9.1%	21.9%	8.2%	0.14570
Total Rate	\$5.64100	\$5.85650	\$6.07763	\$6.24693	10.7%	6.7%	2.8%	\$0.16930
Average Annual Usage (dk)	77.9	77.9	77.9	77.9				
Average Annual Cost of Gas	\$439.43	\$456.22	\$473.45	\$486.64	10.7%	6.7%	2.8%	\$13.19
Firm General Service								
Commodity Cost of Gas 4/	\$2.69280	\$3.04810	\$3.04340	\$3.06040	13.7%	0.4%	0.6%	\$0.01700
Demand Cost of Gas	1.18900	1.23410	1.26110	1.26770	6.6%	2.7%	0.5%	0.00660
Commodity Margin 5/	1.47070	1.28270	1.48463	1.59353	8.4%	24.2%	7.3%	0.10890
Total Rate	\$5.35250	\$5.56490	\$5.78913	\$5.92163	10.6%	6.4%	2.3%	\$0.13250
Average Annual Usage (dk)	434.4	434.4	434.4	434.4				
Average Annual Cost of Gas	\$2,325.13	\$2,417.39	\$2,514.80	\$2,572.36	10.6%	6.4%	2.3%	\$57.56

	Commod	ity Change	Deman	d Change	Total	Average Annual	
Customer Class	(\$/dk)	(Percent)	(\$/dk)	(Percent)	(\$/dk)	(Percent)	Bill Change
Residential	\$0.0170	0.6%	\$0.0066	0.5%	\$0.1693	2.8%	\$13.19
Firm General Service	0.0170	0.6%	0.0066	0.5%	0.1325	2.3%	\$57.56

^{1/} Consolidated Base Cost of Gas effective July 1, 2017 in update to Docket No. G004/MR-16-834. Commodity margin effective January 1, 2017 in Docket No. G004/GR-15-879.

^{2/} Demand in Docket No. G004/AA-16-885, effective November 1, 2016: Commodity Margin includes interim adjustment of 17.671% effective January 1, 2016 - Docket No. G004/GR-15-879.

^{3/} Consolidated commodity and demand costs proposed in Docket No. G004/M-17-521 effective November 1, 2017.

^{4/} Historical periods include GCR rate of \$0.1627 (effective September 1, 2016 - Docket No. G004/AA-16-719); November includes GCR rate of \$0.1748 (effective September 1, 2017 - Docket No. G004/AA-17-493).

^{5/} Historical periods include CCRA of \$0.2125 (effective January 1, 2017 - Docket No. G004/M-16-384) and GAP of \$0.01393 (effective June 1, 2017 - Docket No. G004/M-16-495); November includes CCRA of \$0.2097 (effective September 1, 2017 - Docket No. G004-M-17-338), GAP of \$0.01393, GUIC of \$0.1485 for residential and \$0.1117 for firm general (effective November 1, 2017 - Docket No. G004/M-16-1066).

GREAT PLAINS NATURAL GAS CO. DEMAND ENTITLEMENT ANALYSIS -UPDATE-

	Nu	ımber of Firm Cu	stomers	De	sign Day Requirer	nent	То	Total Entitlement + Storage + Peak Shaving			
Heating Season	(1) Number of Customers	(2) Change From Previous Year	(3) % Change From Previous Year	(4) Design Day (dk)	(5) Change From Previous Year	(6) % Change From Previous Year	(7) Total Entitlement (dk)	(8) Change From Previous Year	(9) % Change From Previous Year	(10) % of Reserve Margin [(7)-(4)]/(4)	
2017-2018	23,997			32,733			34,445			5.2%	
Annual Aver	age		0.00%			0.00%			0.00%	5.2%	
	F	Firm Peak Day Se	endout								
	(11) Firm	(12)	(13)	(14) Excess Per	(15) Design Day	(16) Entitlement	(17) Peak Day				
Heating Season	Peak Day Sendout (dk)	Change From Previous Year	% Change From Previous Year	Customer [(7)-(4)]/(1)	per Customer (4)/(1)	per Customer (7)/(1)	Sendout per Customer (11)/(1)				
2017-2018	0			0.0713	1.3640	1.4354	0.0000				
Annual Aver	age		0.00%	0.0713	1.3640	1.4354	0.0000				

GREAT PLAINS NATURAL GAS CO. DEMAND ENTITLEMENT ANALYSIS NORTH DISTRICT -UPDATE-

	Ni	umber of Firm Cu	stomers	Des	sign Day Requirer	nent	To	tal Entitlement +	Storage + Peak Sh	aving
Heating Season	(1) Number of Customers	(2) Change From Previous Year	(3) % Change From Previous Year	(4) Design Day (dk)	(5) Change From Previous Year	(6) % Change From Previous Year	(7) Total Entitlement (dk)	(8) Change From Previous Year	(9) % Change From Previous Year	(10) % of Reserve Margin [(7)-(4)]/(4)
2016-2017	11,854	11	0.09%	15,556	147	0.95%	16,400	700	4.46%	5.43%
2015-2016	11,843	161	1.38%	15,409	597	4.03%	15,700	200	1.29%	1.89%
2014-2015	11,682	103	0.89%	14,812	672	4.75%	15,500	500	3.33%	4.64%
2013-2014	11,579	172	1.51%	14,140	(104)	-0.73%	15,000	0	0.00%	6.08%
2012-2013	11,407	177	1.58%	14,244	176	1.25%	15,000	159	1.07%	5.31%
2011-2012	11,230	48	0.43%	14,068	(96)	-0.68%	14,841	(1,000)	-6.31%	5.49%
2010-2011	11,182	(12)	-0.11%	14,164	(248)	-1.72%	15,841	0	0.00%	11.84%
2009-2010	11,194	8	0.07%	14,412	(37)	-0.26%	15,841	(1,000)	-5.94%	9.92%
2008-2009	11,186	41	0.37%	14,449	(413)	-2.78%	16,841	0	0.00%	16.55%
2007-2008	11,145	28	0.25%	14,862	(289)	-1.91%	16,841	0	0.00%	13.32%
2006-2007	11,117	(64)	-0.57%	15,151	(673)	-4.25%	16,841	0	0.00%	11.15%
2005-2006	11,181	81	0.73%	15,824	(49)	-0.31%	16,841	0	0.00%	6.43%
2004-2005	11,100	25	0.23%	15,873	(121)	-0.76%	16,841	0	0.00%	6.10%
2003-2004 1/		2,375	27.30%	15,994	2,559	19.05%	16,841	4,154	32.74%	5.30%
2002-2003	8,700	180	2.11%	13,435	(1,231)	-8.39%	12,687	(2,780)	-17.97%	-5.57%
2001-2002	8,520	19	0.22%	14,666	212	1.47%	15,467	0	0.00%	5.46%
2000-2001	8,501	304	3.71%	14,454	0	0.00%	15,467	0	0.00%	7.01%
1999-2000	8,197	82	1.01%	14,454	618	4.47%	15,467	0	0.00%	7.01%
1998-1999	8,115	227	2.88%	13,836	244	1.80%	15,467	0	0.00%	11.79%
1997-1998	7,888	215	2.80%	13,592	2,415	21.61%	15,467	3,950	34.30%	13.79%
1996-1997	7,673	267	3.61%	11,177	379	3.51%	11,517	1,459	14.51%	3.04%
1995-1996	7,406			10,798			10,058			-6.85%
Annual Avera	ge		2.40%			1.96%			2.93%	6.60%

	F	irm Peak Day Se	endout				
Heating Season	(11) Firm Peak Day Sendout (dk)	(12) Change From Previous Year	(13) % Change From Previous Year	(14) Excess Per Customer [(7)-(4)]/(1)	(15) Design Day per Customer (4)/(1)	(16) Entitlement per Customer (7)/(1)	(17) Peak Day Sendout per Customer (11)/(1)
2016-2017	13,328	1,664	14.27%	0.0712	1.3123	1.3835	1.1243
2015-2016	11,664	(2,204)	-15.89%	0.0246	1.3011	1.3257	0.9849
2014-2015	13,868	632	4.77%	0.0589	1.2679	1.3268	1.1871
2013-2014	13,236	1,530	13.07%	0.0743	1.2212	1.2954	1.1431
2012-2013	11,706	3,265	38.68%	0.0663	1.2487	1.3150	1.0262
2011-2012	8,441	(2,617)	-23.67%	0.0688	1.2527	1.3215	0.7516
2010-2011	11,058	2,134	23.91%	0.1500	1.2667	1,4167	0.9889
2009-2010	8,924	(769)	-7.93%	0.1277	1.2875	1.4151	0.7972
2008-2009	9,693	(348)	-3.47%	0.2138	1.2917	1.5055	0.8665
2007-2008	10,041	451	4.70%	0.1776	1.3335	1.5111	0.9009
2006-2007	9,590	43	0.45%	0.1520	1.3629	1.5149	0.8626
2005-2006	9,547	(923)	-8.82%	0.0910	1.4153	1.5062	0.8539
2004-2005	10,470	(942)	-8.25%	0.0872	1.4300	1.5172	0.9432
2003-2004	11,412	1,606	16.38%	0.0765	1.4442	1.5206	1.0304
2002-2003	9,806	(3,572)	-26.70%	(0.0860)	1.5443	1.4583	1.1271
2001-2002	13,378	1,699	14.55%	0.0940	1.7214	1.8154	1.5702
2000-2001	11,679	(1,699)	-12.70%	0.1192	1.7003	1.8194	1.3738
1999-2000	13,378	2,196	19.64%	0.1236	1.7633	1.8869	1.6321
1998-1999	11,182	(748)	-6.27%	0.2010	1.7050	1.9060	1.3779
1997-1998	11,930	267	2.29%	0.2377	1.7231	1.9608	1.5124
1996-1997	11,663	551	4.96%	0.0443	1.4567	1.5010	1.5200
1995-1996	11,112			(0.0999)	1.4580	1,3581	1.5004
Annual Aver	age		2.09%	0.0943	1.4322	1.5264	1.1398

^{1/} Crookston was consolidated with the North District in 2003.

GREAT PLAINS NATURAL GAS CO. DEMAND ENTITLEMENT ANALYSIS SOUTH DISTRICT -UPDATE-

	3,010	N STEEL SE	6	44 14	-UPDA		Total Entitlement + Storage + Peak Shaving			
	The state of the s	mber of Firm Cus	72.17		gn Day Requiren		- Control Control	ai Entitiement + : (8)	Storage + Peak Sna (9)	aving (10)
Threshop	(1)	(2)	(3)	(4)	(5) Change From	(6)	(7) Total Entitlement	Change From	% Change From	% of Reserve
Heating	Number of	Change From	% Change From Previous Year	Design Day (dk)	Previous Year	Previous Year	(dk)	Previous Year	Previous Year	Margin [(7)-(4)]/(4)
Season	_Customers_	Previous Year	7.		(4			7	-	
2016-2017	11,959	(80)	-0.66%	16,842	(16)	-0.09%	17,845	0	0.00%	5.96%
2015-2016	12,039	197	1.66%	16,858	546	3.35%	17,845	700	4.08%	5.85%
2014-2015	11,842	193	1.66%	16,312	1,019	6.66%	17,145	1,500	9.59%	5.11%
2013-2014	11,649	118	1.02%	15,293	443	2.98%	15,645	0	0.00%	2.30%
2012-2013	11,531	(13)	-0.11%	14,850	(18)	-0.12%	15,645	0	0.00%	5.35%
2011-2012	11,544	(8)	-0.07%	14,868	(297)	-1.96%	15,645	(380)	-2.37%	5.23%
2010-2011	11,552	10	0.09%	15,165	(267)	-1.73%	16,025	(1,170) (170)	-6.80% -0.98%	5.67% 11.42%
2009-2010	11,542	77 8	0.67% 0.07%	15,432 15,276	156 (301)	1.02% -1.93%	17,195 17,365	(170)	0.00%	13.68%
2008-2009	11,465	(27)	-0.24%	15,577	(117)	-0.75%	17,365	0	0.00%	11.48%
2007-2008 2006-2007	11,457 11,484	(224)	-1.91%	15,694	(699)	-4.26%	17,365	0	0.00%	10.65%
2005-2007	11,708	(92)	-0.78%	16,393	(336)	-2.01%	17,365	0	0.00%	5.93%
2003-2006	11,800	60	0.51%	16,729	92	0.55%	17,365	0	0.00%	3.80%
2003-2004	11,740	40	0.34%	16,637	(413)	-2.42%	17,365	0	0.00%	4.38%
2003-2004	11,700	76	0.65%	17,050	(2,058)	-10.77%	17,365	(2,600)	-13.02%	1.85%
2001-2002	11,624	189	1.65%	19,108	7	0.04%	19,965	0	0.00%	4.49%
2000-2001	11,435	(41)	-0.36%	19,101	Ó	0.00%	19,965	0	0.00%	4.52%
1999-2000	11,476	280	2.50%	19,101	340	1.81%	19,965	0	0.00%	4.52%
1998-1999	11,196	(25)	-0.22%	18,761	374	2.03%	19,965	0	0.00%	6.42%
1997-1998	11,221	306	2.80%	18,387	431	2.40%	19,965	2,000	11.13%	8.58%
1996-1997	10,915	235	2.20%	17,956	353	2.01%	17,965	1,008	5.94%	0.05%
1995-1996	10,680			17,603			16,957			-3.67%
Annual Ave	erage		0.55%			-0.15%			0.36%	5.62%
	0.578-77-651									
	E:	irm Dook Day Co	ndout	(4.4)	(15)	(16)	(17)			
		irm Peak Day Se		(14) Excess Per	(15) Design Day	(16) Entitlement	(17) Peak Day			
Heating	(11)	(12)	(13)	Excess Per	Design Day	Entitlement	Peak Day			
ter in the second second second	(11) Firm Peak Day	(12) Change From	(13) % Change From	Excess Per Customer	Design Day per Customer	Entitlement per Customer	Peak Day Sendout per			
Season	(11) Firm Peak Day Sendout (dk)	(12) Change From Previous Year	(13) % Change From Previous Year	Excess Per Customer [(7)-(4)]/(1)	Design Day per Customer (4)/(1)	Entitlement per Customer (7)/(1)	Peak Day Sendout per Customer (11)/(1)	ı.		
Season 2016-2017	(11) Firm Peak Day Sendout (dk) 15,201	(12) Change From Previous Year (381)	(13) % Change From Previous Year -2.45%	Excess Per Customer [(7)-(4)]/(1) 0.0839	Design Day per Customer (4)/(1) 1.4083	Entitlement per Customer (7)/(1) 1.4922	Peak Day Sendout per Customer (11)/(1) 1.2711			
Season 2016-2017 2015-2016	(11) Firm Peak Day Sendout (dk) 15,201 15,582	(12) Change From Previous Year (381) 351	(13) % Change From Previous Year -2.45% 2.30%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820	Design Day per Customer (4)/(1) 1.4083 1.4003	Entitlement per Customer (7)/(1) 1.4922 1.4823	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943	2		
Season 2016-2017 2015-2016 2014-2015	(11) Firm Peak Day Sendout (dk) 15,201 15,582 15,231	(12) Change From Previous Year (381) 351 774	(13) % Change From Previous Year -2.45% 2.30% 5.35%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820 0.0703	Design Day per Customer (4)/(1) 1.4083 1.4003 1.3775	Entitlement per Customer (7)/(1) 1.4922 1.4823 1.4478	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943 1.2862	2		
Season 2016-2017 2015-2016 2014-2015 2013-2014	(11) Firm Peak Day Sendout (dk) 15,201 15,582 15,231 14,457	(12) Change From Previous Year (381) 351 774 1,941	(13) % Change From Previous Year -2.45% 2.30% 5.35% 15.51%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820 0.0703 0.0302	Design Day per Customer (4)/(1) 1.4083 1.4003 1.3775 1.3128	Entitlement per Customer (7)/(1) 1.4922 1.4823 1.4478 1.3430	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943 1.2862 1.2411			
Season 2016-2017 2015-2016 2014-2015 2013-2014 2012-2013	(11) Firm Peak Day Sendout (dk) 15,201 15,582 15,231 14,457 12,516	(12) Change From Previous Year (381) 351 774 1,941 2,248	(13) % Change From Previous Year -2.45% 2.30% 5.35% 15.51% 21.89%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820 0.0703 0.0302 0.0689	Design Day per Customer (4)/(1) 1.4083 1.4003 1.3775 1.3128 1.2878	Entitlement per Customer (7)/(1) 1.4922 1.4823 1.4478 1.3430 1.3568	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943 1.2862 1.2411 1.0854			
Season 2016-2017 2015-2016 2014-2015 2013-2014 2012-2013 2011-2012	(11) Firm Peak Day Sendout (dk) 15,201 15,582 15,231 14,457 12,516 10,268	(12) Change From Previous Year (381) 351 774 1,941 2,248 (1,652)	(13) % Change From Previous Year -2.45% 2.30% 5.35% 15.51% 21.89% -13.86%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820 0.0703 0.0302 0.0689 0.0673	Design Day per Customer (4)/(1) 1.4083 1.4003 1.3775 1.3128 1.2878 1.2879	Entitlement per Customer (7)/(1) 1.4922 1.4823 1.4478 1.3430 1.3568 1.3552	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943 1.2862 1.2411 1.0854 0.8895			
Season 2016-2017 2015-2016 2014-2015 2013-2014 2012-2013 2011-2012 2010-2011	(11) Firm Peak Day Sendout (dk) 15,201 15,582 15,231 14,457 12,516 10,268 11,920	(12) Change From Previous Year (381) 351 774 1,941 2,248 (1,652) (692)	(13) % Change From Previous Year -2.45% 2.30% 5.35% 15.51% 21.89% -13.86% -5.49%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820 0.0703 0.0302 0.0689 0.0673 0.0744	Design Day per Customer (4)/(1) 1.4083 1.4003 1.3775 1.3128 1.2878 1.2879 1.3128	Entitlement per Customer (7)/(1) 1.4922 1.4823 1.4478 1.3430 1.3568 1.3552 1.3872	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943 1.2862 1.2411 1.0854 0.8895 1.0319			
Season 2016-2017 2015-2016 2014-2015 2013-2014 2012-2013 2011-2012 2010-2011 2009-2010	(11) Firm Peak Day Sendout (dk) 15,201 15,582 15,231 14,457 12,516 10,268 11,920 12,612	(12) Change From Previous Year (381) 351 774 1,941 2,248 (1,652) (692) (962)	(13) % Change From Previous Year -2.45% 2.30% 5.35% 15.51% 21.89% -13.86% -5.49% -7.09%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820 0.07703 0.0302 0.0689 0.0673 0.0744 0.1527	Design Day per Customer (4)/(1) 1.4083 1.4003 1.3775 1.3128 1.2878 1.2879 1.3128 1.3370	Entitlement per Customer (7)/(1) 1.4922 1.4823 1.4478 1.3430 1.3568 1.3552 1.3872 1.4898	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943 1.2862 1.2411 1.0854 0.8895 1.0319 1.0927			
Season 2016-2017 2015-2016 2014-2015 2013-2014 2012-2013 2011-2012 2010-2011 2009-2010 2008-2009	(11) Firm Peak Day Sendout (dk) 15,201 15,582 15,231 14,457 12,516 10,268 11,920 12,612 13,574	(12) Change From Previous Year (381) 351 774 1,941 2,248 (1,652) (692) (962) 888	(13) % Change From Previous Year -2.45% 2.30% 5.35% 15.51% 21.89% -13.86% -5.49% -7.09% 7.00%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820 0.0703 0.0302 0.0689 0.0673 0.0744 0.1527 0.1822	Design Day per Customer (4)/(1) 1.4083 1.4003 1.3775 1.3128 1.2878 1.2879 1.3128 1.3370 1.3324	Entitlement per Customer (7)/(1) 1.4922 1.4823 1.4478 1.3430 1.3568 1.3552 1.3872 1.4898 1.5146	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943 1.2862 1.2411 1.0854 0.8895 1.0319 1.0927 1.1840			
Season 2016-2017 2015-2016 2014-2015 2013-2014 2012-2013 2011-2012 2010-2011 2008-2009 2007-2008	(11) Firm Peak Day Sendout (dk) 15,201 15,582 15,231 14,457 12,516 10,268 11,920 12,612 13,574 12,686	(12) Change From Previous Year (381) 351 774 1,941 2,248 (1,652) (692) (962) 888 401	(13) % Change From Previous Year -2.45% 2.30% 5.35% 15.51% 21.89% -13.86% -5.49% -7.09% 7.00% 3.26%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820 0.0703 0.0302 0.0689 0.0673 0.0744 0.1527 0.1822 0.1561	Design Day per Customer (4)/(1) 1.4083 1.4003 1.3775 1.3128 1.2878 1.2878 1.2879 1.3128 1.3370 1.3324 1.3596	Entitlement per Customer (7)/(1) 1.4922 1.4823 1.4478 1.3430 1.3568 1.3552 1.3872 1.4898 1.5146 1.5157	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943 1.2862 1.2411 1.0854 0.8895 1.0319 1.0927 1.1840 1.1073			
Season 2016-2017 2015-2016 2014-2015 2013-2014 2012-2013 2011-2012 2010-2011 2009-2010 2008-2009 2007-2008 2006-2007	(11) Firm Peak Day Sendout (dk) 15,201 15,582 15,231 14,457 12,516 10,268 11,920 12,612 13,574 12,686 12,285	(12) Change From Previous Year (381) 351 774 1,941 2,248 (1,652) (692) (962) 888 401 (789)	(13) % Change From Previous Year -2.45% 2.30% 5.35% 15.51% 21.89% -13.86% -5.49% -7.09% 7.00% 3.26% -6.03%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820 0.0703 0.0302 0.0689 0.0673 0.0744 0.1527 0.1822 0.1561 0.1455	Design Day per Customer (4)/(1) 1.4083 1.4003 1.3775 1.3128 1.2878 1.2879 1.3128 1.3370 1.3324 1.3596 1.3666	Entitlement per Customer (7)/(1) 1,4922 1,4823 1,4478 1,3430 1,3568 1,3552 1,3872 1,4898 1,5146 1,5157 1,5121	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943 1.2862 1.2411 1.0854 0.8895 1.0319 1.0927 1.1840 1.1073 1.0697			
Season 2016-2017 2015-2016 2014-2015 2013-2014 2012-2013 2011-2012 2010-2011 2008-2009 2007-2008 2006-2007 2005-2006	(11) Firm Peak Day Sendout (dk) 15,201 15,582 15,231 14,457 12,516 10,268 11,920 12,612 13,574 12,686 12,285 13,074	(12) Change From Previous Year (381) 351 774 1,941 2,248 (1,652) (692) (962) 888 401 (789) (996)	(13) % Change From Previous Year -2.45% 2.30% 5.35% 15.51% 21.89% -13.86% -5.49% -7.09% 7.00% 3.26% -6.03% -7.08%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820 0.0703 0.0302 0.0689 0.0673 0.0744 0.1527 0.1822 0.1561 0.1455 0.0830	Design Day per Customer (4)/(1) 1.4083 1.4003 1.3775 1.3128 1.2878 1.2879 1.3128 1.3370 1.3324 1.3596 1.3666 1.4002	Entitlement per Customer (7)/(1) 1.4922 1.4823 1.4478 1.3430 1.3568 1.3552 1.3872 1.4898 1.5146 1.5157 1.5121	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943 1.2862 1.2411 1.0854 0.8895 1.0319 1.0927 1.1840 1.1073 1.0697 1.1167			
Season 2016-2017 2015-2016 2014-2015 2013-2014 2012-2013 2011-2012 2010-2011 2008-2009 2007-2008 2006-2007 2005-2006 2004-2005	(11) Firm Peak Day Sendout (dk) 15,201 15,582 15,231 14,457 12,516 10,268 11,920 12,612 13,574 12,686 12,285 13,074 14,070	(12) Change From Previous Year (381) 351 774 1,941 2,248 (1,652) (692) (962) 888 401 (789) (996) (626)	(13) % Change From Previous Year -2.45% 2.30% 5.35% 15.51% 21.89% -13.86% -5.49% -7.09% 7.00% 3.26% -6.03% -7.08% -4.26%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820 0.0703 0.0302 0.0689 0.0673 0.0744 0.1527 0.1822 0.1561 0.1455	Design Day per Customer (4)/(1) 1.4083 1.4003 1.3775 1.3128 1.2878 1.2879 1.3128 1.3370 1.3324 1.3596 1.3666	Entitlement per Customer (7)/(1) 1.4922 1.4823 1.4478 1.3430 1.3568 1.3552 1.3872 1.4898 1.5157 1.5121 1.4832 1.4716	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943 1.2862 1.2411 1.0854 0.8895 1.0319 1.0927 1.1840 1.1073 1.0697			
Season 2016-2017 2015-2016 2014-2015 2013-2014 2012-2013 2011-2012 2010-2011 2008-2009 2007-2008 2006-2007 2005-2006 2004-2005 2003-2004	(11) Firm Peak Day Sendout (dk) 15,201 15,582 15,231 14,457 12,516 10,268 11,920 12,612 13,574 12,686 12,285 13,074 14,070 14,696	(12) Change From Previous Year (381) 351 774 1,941 2,248 (1,652) (692) (962) 888 401 (789) (996) (626) 425	(13) % Change From Previous Year -2.45% 2.30% 5.35% 15.51% 21.89% -13.86% -5.49% -7.09% 7.00% 3.26% -6.03% -7.08% -4.26% 2.98%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820 0.0773 0.0302 0.0689 0.0673 0.0744 0.1527 0.1822 0.1561 0.1455 0.0830 0.0539 0.0620	Design Day per Customer (4)/(1) 1.4083 1.4003 1.3775 1.3128 1.2878 1.2879 1.3128 1.3370 1.3324 1.3596 1.3666 1.4002 1.4177	Entitlement per Customer (7)/(1) 1.4922 1.4823 1.4478 1.3430 1.3568 1.3552 1.3872 1.4898 1.5146 1.5157 1.5121	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943 1.2862 1.2411 1.0854 0.8895 1.0319 1.0927 1.1840 1.1073 1.0697 1.1167			
Season 2016-2017 2015-2016 2014-2015 2013-2014 2012-2013 2011-2012 2010-2011 2008-2009 2007-2008 2006-2007 2005-2006 2004-2005	(11) Firm Peak Day Sendout (dk) 15,201 15,582 15,231 14,457 12,516 10,268 11,920 12,612 13,574 12,686 12,285 13,074 14,070	(12) Change From Previous Year (381) 351 774 1,941 2,248 (1,652) (692) (962) 888 401 (789) (996) (626)	(13) % Change From Previous Year -2.45% 2.30% 5.35% 15.51% 21.89% -13.86% -5.49% -7.09% 7.00% 3.26% -6.03% -7.08% -4.26%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820 0.0703 0.0302 0.0689 0.0673 0.0744 0.1527 0.1822 0.1561 0.1455 0.0830 0.0539	Design Day per Customer (4)/(1) 1.4083 1.4003 1.3775 1.3128 1.2879 1.3128 1.3370 1.3324 1.3596 1.3666 1.4002 1.4177	Entitlement per Customer (7)/(1) 1.4922 1.4823 1.4478 1.3430 1.3568 1.3552 1.3872 1.4898 1.5146 1.5157 1.5121 1.4832 1.4716 1.4791	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943 1.2862 1.2411 1.0854 0.8895 1.0319 1.0927 1.1840 1.1073 1.0697 1.1167 1.1924 1.2518			
Season 2016-2017 2015-2016 2014-2015 2013-2014 2012-2013 2011-2012 2010-2011 2008-2009 2007-2008 2006-2007 2005-2006 2004-2005 2003-2004 2002-2003	(11) Firm Peak Day Sendout (dk) 15,201 15,582 15,231 14,457 12,516 10,268 11,920 12,612 13,574 12,686 12,285 13,074 14,070 14,696 14,271	(12) Change From Previous Year (381) 351 774 1,941 2,248 (1,652) (692) (962) 888 401 (789) (996) (626) (626) 425 2,151	(13) % Change From Previous Year -2.45% 2.30% 5.35% 15.51% 21.89% -13.86% -5.49% -7.09% 7.00% 3.26% -6.03% -7.08% -4.26% 2.98% 17.75%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820 0.07703 0.0302 0.0689 0.0673 0.0744 0.1527 0.1822 0.1561 0.1455 0.0830 0.0630 0.0630 0.0620	Design Day per Customer (4)/(1) 1.4083 1.4003 1.3775 1.3128 1.2879 1.3128 1.3370 1.3324 1.3596 1.3666 1.4002 1.4177 1.4171 1.4573	Entitlement per Customer (7)/(1) 1.4922 1.4823 1.4478 1.3430 1.3568 1.3552 1.3872 1.4898 1.5146 1.5157 1.5121 1.4832 1.4716 1.4791 1.4842	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943 1.2862 1.2411 1.0854 0.8895 1.0319 1.0927 1.1840 1.1073 1.0697 1.1167 1.1924 1.2518 1.2197			
Season 2016-2017 2015-2016 2014-2015 2013-2014 2012-2013 2011-2012 2010-2011 2008-2009 2007-2008 2006-2007 2005-2006 2004-2005 2003-2004 2002-2003 2001-2002	(11) Firm Peak Day Sendout (dk) 15,201 15,582 15,231 14,457 12,516 10,268 11,920 12,612 13,574 12,686 12,285 13,074 14,070 14,696 14,271 12,120	(12) Change From Previous Year (381) 351 774 1,941 2,248 (1,652) (692) (962) 888 401 (789) (996) (626) 425 2,151 (2,724)	(13) % Change From Previous Year -2.45% 2.30% 5.35% 15.51% 21.89% -13.86% -5.49% -7.09% 7.00% 3.26% -6.03% -7.08% -4.26% 2.98% 17.75% -18.35%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820 0.0703 0.0302 0.0689 0.0673 0.0744 0.1527 0.1822 0.1561 0.1455 0.0830 0.0539 0.0620 0.0269	Design Day per Customer (4)/(1) 1.4083 1.4003 1.3775 1.3128 1.2879 1.3128 1.3370 1.3324 1.3596 1.3666 1.4002 1.4177 1.4171 1.4573 1.6438	Entitlement per Customer (7)/(1) 1.4922 1.4823 1.4478 1.3430 1.3568 1.3552 1.3872 1.4898 1.5146 1.5157 1.5121 1.4832 1.4716	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943 1.2862 1.2411 1.0854 0.8895 1.0319 1.0927 1.1840 1.1073 1.0697 1.1167 1.1924 1.2518 1.2197 1.0427			
Season 2016-2017 2015-2016 2014-2015 2013-2014 2012-2013 2011-2012 2010-2011 2008-2009 2007-2008 2006-2007 2005-2006 2004-2005 2003-2004 2002-2003 2001-2002 2000-2001	(11) Firm Peak Day Sendout (dk) 15,201 15,582 15,231 14,457 12,516 10,268 11,920 12,612 13,574 12,686 12,285 13,074 14,070 14,696 14,271 12,120 14,844	(12) Change From Previous Year (381) 351 774 1,941 2,248 (1,652) (692) (962) 888 401 (789) (996) (626) 425 2,151 (2,724) (1,921)	(13) % Change From Previous Year -2.45% 2.30% 5.35% 15.51% 21.89% -13.86% -5.49% -7.09% 7.00% 3.26% -6.03% -7.08% -4.26% 2.98% 17.75% -18.35% -11.46%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820 0.0703 0.0302 0.0689 0.0673 0.0744 0.1527 0.1822 0.1561 0.1455 0.0830 0.0539 0.0620 0.0269 0.0737	Design Day per Customer (4)/(1) 1.4083 1.4003 1.3775 1.3128 1.2878 1.2879 1.3128 1.3370 1.3324 1.3596 1.3666 1.4002 1.4171 1.4573 1.6438 1.6704	Entitlement per Customer (7)/(1) 1.4922 1.4823 1.4478 1.3430 1.3568 1.3552 1.3872 1.4898 1.5146 1.5157 1.5121 1.4832 1.4716 1.4791 1.4842 1.7176 1.7460	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943 1.2862 1.2411 1.0854 0.8895 1.0319 1.0927 1.1840 1.1073 1.0697 1.1167 1.1924 1.2518 1.2197 1.0427 1.2981 1.4609 1.4235			
Season 2016-2017 2015-2016 2014-2015 2013-2014 2012-2013 2011-2012 2010-2011 2008-2009 2007-2008 2006-2007 2005-2006 2004-2005 2003-2004 2002-2003 2001-2002 2000-2001 1999-2000	(11) Firm Peak Day Sendout (dk) 15,201 15,582 15,231 14,457 12,516 10,268 11,920 12,612 13,574 12,686 12,285 13,074 14,070 14,696 14,271 12,120 14,844 16,765	(12) Change From Previous Year (381) 351 774 1,941 2,248 (1,652) (692) (962) 888 401 (789) (996) (626) 425 2,151 (2,724) (1,921) 828	(13) % Change From Previous Year -2.45% 2.30% 5.35% 15.51% 21.89% -13.86% -5.49% -7.09% 7.00% 3.26% -6.03% -7.08% -4.26% 2.98% 17.75% -18.35% -11.46% 5.20%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820 0.0703 0.0302 0.0689 0.0673 0.0744 0.1527 0.1822 0.1561 0.1455 0.0830 0.0539 0.0620 0.0269 0.0737 0.0756	Design Day per Customer (4)/(1) 1.4083 1.4003 1.3775 1.3128 1.2878 1.2879 1.3128 1.3370 1.3324 1.3596 1.3666 1.4002 1.4177 1.4171 1.4573 1.6438 1.6704 1.6644	Entitlement per Customer (7)/(1) 1.4922 1.4823 1.4478 1.3430 1.3568 1.3552 1.3872 1.4898 1.5146 1.5157 1.5121 1.4832 1.4716 1.4791 1.4842 1.7176 1.7460 1.7397	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943 1.2862 1.2411 1.0854 0.8895 1.0319 1.0927 1.1840 1.1073 1.0697 1.1167 1.1924 1.2518 1.2197 1.0427 1.2981 1.4609 1.4235 1.4321			
Season 2016-2017 2015-2016 2014-2015 2013-2014 2012-2013 2011-2012 2010-2011 2008-2009 2007-2008 2006-2007 2005-2006 2004-2005 2003-2004 2002-2003 2001-2002 2000-2001 1999-2000	(11) Firm Peak Day Sendout (dk) 15,201 15,582 15,231 14,457 12,516 10,268 11,920 12,612 13,574 12,686 12,285 13,074 14,070 14,696 14,271 12,120 14,844 16,765 15,937	(12) Change From Previous Year (381) 351 774 1,941 2,248 (1,652) (692) (962) (962) (962) (962) (962) (262) (626) 425 2,151 (2,724) (1,921) 828 (133)	(13) % Change From Previous Year -2.45% 2.30% 5.35% 15.51% 21.89% -13.86% -5.49% -7.09% 7.00% 3.26% -6.03% -7.08% -4.26% 2.98% 17.75% -18.35% -11.46% 5.20% -0.83%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820 0.0703 0.0302 0.0689 0.0673 0.0744 0.1527 0.1822 0.1561 0.1455 0.0830 0.0539 0.0620 0.0269 0.0737 0.0756	Design Day per Customer (4)/(1) 1.4083 1.4003 1.3775 1.3128 1.2878 1.2878 1.2878 1.3329 1.3128 1.3370 1.3324 1.3596 1.3666 1.4002 1.4177 1.4171 1.4573 1.6438 1.6704 1.6644 1.6757	Entitlement per Customer (7)/(1) 1.4922 1.4823 1.4478 1.3430 1.3568 1.3552 1.3872 1.4898 1.5146 1.5157 1.5121 1.4832 1.4716 1.4791 1.4842 1.7176 1.7460 1.7397 1.7832 1.7793 1.6459	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943 1.2862 1.2411 1.0854 0.8895 1.0319 1.0927 1.1840 1.1073 1.0697 1.1167 1.1924 1.2518 1.2197 1.0427 1.2981 1.4609 1.4235 1.4321			
Season 2016-2017 2015-2016 2014-2015 2013-2014 2012-2013 2011-2012 2010-2011 2008-2009 2007-2008 2006-2007 2005-2006 2004-2005 2003-2004 2002-2003 2001-2002 2000-2001 1999-2000 1998-1999	(11) Firm Peak Day Sendout (dk) 15,201 15,582 15,231 14,457 12,516 10,268 11,920 12,612 13,574 12,686 12,285 13,074 14,070 14,696 14,271 12,120 14,844 16,765 15,937 16,070 15,955	(12) Change From Previous Year (381) 351 774 1,941 2,248 (1,652) (692) (962) (962) (962) (962) (962) (2,151 (2,724) (1,921) 828 (133) 115	(13) % Change From Previous Year -2.45% 2.30% 5.35% 15.51% 21.89% -13.86% -5.49% -7.09% 7.00% 3.26% -6.03% -7.08% -4.26% 2.98% 17.75% -18.35% -11.46% 5.20% -0.83% 0.72%	Excess Per Customer [(7)-(4)]/(1) 0.0839 0.0820 0.0703 0.0302 0.0689 0.0673 0.0744 0.1527 0.1822 0.1561 0.1455 0.0830 0.0539 0.0620 0.0269 0.0737 0.0756 0.0753 0.1075	Design Day per Customer (4)/(1) 1.4083 1.4003 1.3775 1.3128 1.2878 1.2879 1.3128 1.3370 1.3324 1.3596 1.3666 1.4002 1.4177 1.4171 1.4573 1.6438 1.6704 1.6644 1.6757 1.6386	Entitlement per Customer (7)/(1) 1,4922 1,4823 1,4478 1,3430 1,3568 1,3552 1,3872 1,4898 1,5146 1,5157 1,5121 1,4832 1,4716 1,4791 1,4842 1,7176 1,7460 1,7397 1,7832 1,7793	Peak Day Sendout per Customer (11)/(1) 1.2711 1.2943 1.2862 1.2411 1.0854 0.8895 1.0319 1.0927 1.1840 1.1073 1.0697 1.1167 1.1924 1.2518 1.2197 1.0427 1.2981 1.4609 1.4235 1.4321			

GREAT PLAINS NATURAL GAS CO. DEMAND ENTITLEMENT FILING 2017 - 2018 HEATING SEASON DESIGN DAY - NOVEMBER 2017 -UPDATE-

<u>Pipeline</u>	Custo Dk/day	omer Factor	rs 1/ RSqr	Design HDD 2/	No. of Customers 3/	Projected Customers 4/	Peak/ Customer	Projected Peak Day (dk)	L&UA 5/	Projected Design	Proposed Capacity	Reserve
VGT												
Crookston	0.04204	0.01409	0.98198	96	2,524	2,554	1.39468	3,561	25	3,586		
North 4	0.05467	0.01332	0.95988	91	7,145	7,191	1.26679	9,106	64	9,170		
Wahpeton	0.07393	0.01417	0.98646	91	2,195	2,231	1.36340	3,044	21	3,065		
Total VGT					11,864	11,976		15,711	110	15,821		
NNG	0.05342	0.01619	0.98566	83	11,946_	12,021	1.39719	16,794	118	16,912		
Total					23,810	23,997		32,505	228	32,733	35,345 34,445	8.0% 5.2%

^{1/} Use per customer factors based on regression analysis for the 36 months ending March 2017.

^{2/} Design Heating Degree Days Base 60 degrees F.

^{3/} Reflects monthly average for December 2016 - February 2017.

^{4/} Customer growth is based on regression analysis for the 36 months ending March 2017 with composite growth rates of: Crookston = 1.32%, North = 0.87%, Wahpeton = 1.13%, South = 0.63%.

^{5/} Lost and Unaccounted for Gas percentage of 0.7%.

GREAT PLAINS NATURAL GAS CO. DEMAND ENTITLEMENT FILING 2017 - 2018 HEATING SEASON DEMAND PROFILE EFFECTIVE NOVEMBER 1, 2017 -UPDATE-

Type of Capacity or Entitlement	Authorized Amount	Proposed Change	Proposed Amount	Contract Length	Expiration Date
Demand Profile (dk) 1/ VGT					
FT-A - Zone 1-1 (Cat. 3)	8,000	0	8,000	5 years	10/31/22
FT-A - Zone 1-1 (Cat. 3)	5,000	Ö	5,000	4 5 years	10/31/22
FT-A (Cat. 3) Seasonal (November - March)	2,000	0	2,000	1 5 years	10/31/22
FT-A (November - March)	1,400	(1,400)	0	5 months	3/31/17
Proposed: FT-A - Zone 1-1 (Cat. 3)	0	2,500	2,500	5 years	10/31/22
BP Contract (Firm Demand)	0	1,600	1,600	5 months	3/31/18
NNG					
TF12 Base (Summer & Winter)	5,421	0 -567	5,421 4,854	5 years	10/31/19
TF12 Variable (Summer & Winter)	2,114	0 567	2,114 2,681	5 years	10/31/19
TF5 (November - March)	3,410	0	3,410	5 years	10/31/19
TFX Negotiated (November - March)	1,000	0	1,000	10.5 years	3/31/25
TFX Seasonal (November - March)	5,200	0	5,200	5 years	10/31/19
TFX (Annual)	2,000	(1,300) 2/	700	10 years	10/31/25
TFX Seasonal - Capacity Release	(1,000)	1,000	0	5 months	3/31/17
TF12 - Capacity Release	(300)	300	0	4 months	3/31/17
Subtotal	34,245	1,100 200	35,345 34,44	15	
Summamental Consolity					
Supplemental Capacity TFX Seasonal (November - March)	2,000	0	2,000	5 years	10/31/19
TFX (Annual)	13,000	0	13,000	11.5 years	3/31/24
TFX (Annual)	0	1,300 2/	1,300	10 years	10/31/25
Storage	4.040	0	4.040	Evente	5/31/20
FDD-1 Reservation	4,640	0	4,640	5 years	5/3/1/20
Heating Season Total Capacity:	34,245	1,100 200	35,345 34,44	15	
Non-Heating Season Total Capacity:	22,535	0	22,535		
F	22.202	225	20 702		
Forecasted Heating Season Design Day:	32,398	335	32,733		
Estimated Non-Heating Season Design Day:	17,831	195	18,026		
Heating Season Capacity: Surplus/(Shortage)	1,847	765 (135)	2,612 1,712		
Non-Heating Season Capacity: Surplus/(Shortage)	4,704	(195)	4,509		

^{1/} Minnesota communities plus Wahpeton, ND.

^{2/} Northern Natural capacity to be used as supplemental capacity to deliver gas to Viking at Chisago for "back-haul" transport to Vergas, MN.

GREAT PLAINS NATURAL GAS CO. DEMAND PROFILE -UPDATE-

2015-2016 Heating Season		2016-2017 Heating Season		2017-2018 Heating Season		
G004/M-15-645	Quantity (dk)	G004/M-16-557	Quantity (dk)	G004/M-17	Quantity (dk)	Difference
FT-A (Cat. 3) (12 months)	8,000	FT-A (Cat. 3) (12 months)	8,000	FT-A (Cat. 3) (12 months)	8,000	0
FT-A (Cat. 1) (12 months)	5,000	FT-A (Cat. 1) (12 months)	5,000	FT-A (Cat. 3) (12 months)	5,000	0
FT-A (November - March)	2,000	FT-A (November - March)	2,000	FT-A (Cat. 3) (November - March)	2,000	0
BP Seasonal (Firm Gas to Chisago) 1/	730	BP Seasonal (Firm Gas to Chisago)	5	BP Seasonal (Firm Gas to Chisago)	1930	0
FT-A (November - March)	700	FT-A (November - March)	1,400	FT-A (November - March)	(I=)	(1,400)
THE TOTAL SHAPE SH		24		FT-A (Cat. 3) (12 months)	2,500	2,500
			4	BP Contract (November - March)	1,600	1,600
TFX (12 months)	13,000	TFX (12 months)	13,000	TFX (12 months)	13,000	0
TFX (November - March)	2,000	TFX (November - March)	2,000	TFX (November - March)	2,000	0
TF-12 Base	4,604	TF-12 Base	5,421	TF-12 Base	5,421 4,854	0 (567)
TF-12 Variable	2,931	TF-12 Variable	2,114	TF-12 Variable	2,114 2,681	Q 567
TF-5 (November- March)	3,410	TF-5 (November- March)	3,410	TF-5 (November- March)	3,410	0
TFX (November - March)	5,200	TFX (November - March)	5,200	TFX (November - March)	5,200	0
TFX - Negotiated (November - March)	1,000	TFX - Negotiated (November - March)	1,000	TFX - Negotiated (November - March)	1,000	0
TFX (Annual)	2,000	TFX (Annual)	2,000	TFX (Annual) 2/	2,000	0
TFX - Capacity Release	(1,300)	TFX - Capacity Release	(1,000)	TFX - Capacity Release	25	1,000
		TF-12 - Capacity Release	(300)	TF-12 - Capacity Release	82	300
FDD-1 Reservation	4,640	FDD-1 Reservation	4,640	FDD-1 Reservation	4,640	0
Heating Season Total Capacity	33,545	Heating Season Total Capacity	34,245	Heating Season Total Capacity 3/	35,345 34,445	1,100 200
Non-Heating Season Total Capacity	22,535	Non-Heating Season Total Capacity	22,535	Non-Heating Season Total Capacity	22,535	0
Total Entitlement (Including Peak Shaving)	33,545	Total Entitlement	34,245	Total Entitlement 3/	35,345 34,445	1,100 200
Total Annual Transportation	22,535	Total Annual Transportation	22,535	Total Annual Transportation 3/	23,735 21,235	1,200 (1,300)
Total Season Transportation	11,010	Total Season Transportation	11,710	Total Season Transportation	11,610 13,210	(100) 1,500
Percent TF-5	31.16%	Percent TF-5		Percent TF-5	31.16%	
Total Percent Seasonal	32.82%	Total Percent Seasonal	34.19%	Total Percent Seasonal	32.85% 38.35%	-1.34% 4.16%

^{1/} Does not impact demand profile.

^{2/} Demand profile includes 700 dk: Remaining 1,300 dk used to deliver gas to Viking interconnect at Chisago for 1,300 dk FT-A (12 Months) "back-haul" contract to Vergas, MN. 3/ Includes 700 dk of total 2,000 dk from TFX (Annual) contract for capacity and demand profile calculation.

GREAT PLAINS NATURAL GAS CO. RATE EFFECT OF PROPOSED DEMAND - NOVEMBER 1, 2017 NORTH DISTRICT -UPDATE-

					9/	Change from		Change from
	Last Rate	Last Demand	July 2017	November 207	Last Rate	Last Demand	July 2017	July 2017
	Case 1/	Change 2/	PGA Rates	PGA Rates	Case	Change	Rates	Rates
Residential								
Commodity Cost of Gas 4/	\$2.60630	\$2.94760	\$2.95690	\$2.95690 \$3.06040	13.5% -17.4%	0.3% 3.8%	0.0% 3.5%	\$0.00000 \$0.10350
Demand Cost of Gas	1.18900	1.63600	1.26110	\$1.29570 \$1.26770	9.0% 6.6%	20.8% 22.5%	2.7% 0.5%	0.03460 0.00660
Commodity Margin 5/	2.25960	2.02620	2.27353	2.27353 2.419223	0.6% 7.1%	12.2% 19.4%	0.0% 6.4%	0.00000 0.14570
Total Rate	\$6.05490	\$6.60980	\$6.49153	\$6.52613 \$6.74733	7.8% 11.4%	-1.3% 2.1%	0.5% 3.9%	\$0.03460 \$0.25580
Average Annual Usage (dk)	77.9	77.9	77.9	77.9				
Average Annual Cost of Gas	\$471.68	\$514.90	\$505.69	\$ 508,39 \$525.62	7,8% 11.4%	-1.3% 2.1%	0.5% 3.9%	\$2.70 \$19.93
Firm General Service								
Commodity Cost of Gas 4/	\$2.60630	\$2.94760	\$2.95690	\$2.95690 \$3.06040	13.5% -17.4%	0.3%-3.8%	0.0% 3.5%	\$0.00000 \$0.10350
Demand Cost of Gas	1.18900	1.63600	1.26110	\$1.29570 \$1.26770	9.0% -6.6%	-20.8% -22.5%	2.7% 0.5%	0.03460 0.00660
Commodity Margin 5/	1.84870	1.65710	1.86263	1.86263 1.97153	0.8% 6.6%	12.4% 19.0%	0.0% 5.8%	0.00000 0.10890
Total Rate	\$5.64400	\$6.24070	\$6.08063	\$6.11523 \$6.29963	8.3% 11.6%	-2.0% 0.9%	0.5% 3.6%	\$0.03460 \$0.21900
Average Annual Usage (dk)	434.4	434.4	434.4	434.4				
Average Annual Cost of Gas	\$2,451.75	\$2,710.96	\$2,641.43	\$2,656.46 \$2,736.56	8.3% 11.6%	-2.0% 0.9%	0.5% 3.6%	\$15.03 \$95.13
							Average	
	Commodity C	hange		nd Change	Total Cha		Annual	
Customer Class	(\$/dk)	(Percent)	(\$/dk)	(Percent)	(\$/dk)	(Percent)	Bill Change	
Residential	\$0.00000 \$0.10350	0.0% 3.5%	\$ 0.03460 0.0066	2.7% 0.5%	\$0.03460 \$0.25580	0.5% 3.9%	\$2.70 \$8.58	
Firm General Service	0.00000 \$0.10350	0.0%-3.5%	0.03460 0.0066	2.7% 0.5%	0.03460 0.21900	0.5% 3.6%	\$15.03 \$95.13	

^{1/} Consolidated Base Cost of Gas effective July 1, 2017 in update to Docket No. G004/MR-16-834. Commodity margin effective January 1, 2017 in Docket No. G004/GR-15-879.

^{2/} Demand in Docket No. G004/AA-16-885, effective November 1, 2016: Commodity Margin includes interim adjustment of 17.671% effective January 1, 2016 - Docket No. G004/GR-15-879.

^{3/} Consolidated commodity and demand costs proposed in Docket No. G004/M-17-521 effective November 1, 2017.

^{4/} Historical periods include GCR rate of \$0.0762 (effective September 1, 2016 - Docket No. G004/AA-16-719); November includes GCR rate of \$0.1748 (effective September 1, 2017 - Docket No. G004/AA-17-493).

^{5/} Historical periods include CCRA of \$0.2125 (effective January 1, 2017 - Docket No. G004/M-16-384) and GAP of \$0.01393 (effective June 1, 2017 - Docket No. G004/M-16-495); November includes CCRA of \$0.2097 (effective September 1, 2017 - Docket No. G004-M-17-338), GAP of \$0.01393, GUIC of \$0.1485 for residential and \$0.1117 for firm general (effective November 1, 2017 - Docket No. G004/M-16-1066).

GREAT PLAINS NATURAL GAS CO. RATE EFFECT OF PROPOSED DEMAND - NOVEMBER 1, 2017 SOUTH DISTRICT -UPDATE-

Last Rate Case 1/ Last Demand Change 2/ July 2017 PGA Rates November 207 PGA Rates Last Rate Case Last Demand Change July 2017 Rates July 2017 Rates Residential Commodity Cost of Gas 4/ Demand Cost of Gas \$2.69280 \$3.04810 \$3.04340 \$3.04340 \$3.06040 \$13.0% 13.7% -0.2% 0.4% 0.0% 0.6% \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.000000 \$0.000000 \$0.000000	.01700 .00660 .14570
Residential S2.69280 \$3.04810 \$3.04340 \$3.04340 \$3.06040	.00660 .14570
Commodity Cost of Gas 4/ \$2.69280 \$3.04810 \$3.04340 \$3.04340 \$3.06040 \$3.04340 \$3.04340 \$3.06040 \$3.04340 \$3.04	.00660 .14570
Demand Cost of Gas 1.18900 1.23410 1.26110 1.29570 1.26770 9.0% 6.6% 5.0% 2.7% 2.7% 0.5% 0.03460 Commodity Margin 5/ Total Rate 1.75920 1.57430 1.77313 1.77313 1.77313 1.91883 0.8% 9.1 12.6% 21.9% 0.0% 8.2% 0.00000 0 Total Rate \$5.64100 \$5.85650 \$6.07763 \$6.11223 \$6.24693 8.4% 10.7% 4.4% 6.7% 0.6% 2.8% \$0.03460 \$0	.14570
Commodity Margin 5/ 1,75920 1.57430 1.77313 1.77313 1.91883 0.8% 9.1 42.6% 21.9% 0.0% 8.2% 0.00000 0 Total Rate \$5.64100 \$5.85650 \$6.07763 \$6.11223 \$6.24693 8.4% 10.7% 4.4% 6.7% 0.6% 2.8% \$0.03460 \$0	
Total Rate \$5.64100 \$5.85650 \$6.07763 \$6.11223 \$6.24693 8.4% 10.7% 4.4% 6.7% 0.6% 2.8% \$0.03460 \$6.07763	.16930
Average Annual Usage (dk) 77.9 77.9 77.9 77.9	
Man-Tan-G-1, Man-Man-Man-Man-Man-Man-Man-Man-Man-Man-	
Average Annual Cost of Gas \$439.43 \$456.22 \$473.45 \$476.14 \$486.64 8.4% 10.7% 4.4% 6.7% 0.6% 2.8% \$2.69	\$13.19
Firm General Service	
Commodity Cost of Gas 4/ \$2.69280 \$3.04810 \$3.04340 \$3.04340 \$3.06040 \$13.0% 10.2% 0.4% 0.0% 0.6% \$0.000000 \$0.000000 \$0.000000\$\$0.00000 \$0.00000 \$0.00000 \$0.00000 \$0.00000 \$0.00000 \$0.000000 \$0.000000	.01700
Demand Cost of Gas 1.18900 1.23410 1.26110 1.29570 1.26770 9.0% 6.6% 5.0% 2.7% 2.7% 0.5% 0.03460	
Commodity Margin 5/ 1.47070 1.28270 1.48463 1.59353 0.9% 8.4% 15.7% 24.2% 0.0% 7.3% 0.00000 0	
Total Rate \$5.35250 \$5.56490 \$5.78913 \$5.82373 \$5.92163 8.8% 10.6% 4.7% 6.4% 0.6% 2.3% \$0.03460 \$6	.13250
Average Annual Usage (dk) 434.4 434.4 434.4 434.4 434.4	
Average Annual Cost of Gas \$2,325.13 \$2,417.39 \$2,514.80 \$2,529.83 \$2,572.36 8.8% 10.6% 4.7% 6.4% 0.6% 2.3% \$15.03	\$57.56
Average	
Commodity Change Demand Change Total Change Annual	
Customer Class (\$/dk) (Percent) (\$/dk) (Percent) (\$/dk) (Percent) Bill Change	
Residential \$0.00000 \$0.01700 0.0% 0.6% \$0.03460 \$0.00660 2.7% 0.5% \$0.03460 \$0.16930 0.6% 2.8% \$2.69 \$13.19	
Firm General Service 0.00000 0.01700 0.0% 0.6% 0.03460 0.00660 2.7% 0.5% 0.03460 0.16930 0.6% 2.3% \$15.93 \$57.56	

% Change from

Change from

^{1/} Consolidated Base Cost of Gas effective July 1, 2017 in update to Docket No. G004/MR-16-834. Commodity margin effective January 1, 2017 in Docket No. G004/GR-15-879.

^{2/} Demand in Docket No. G004/AA-16-885, effective November 1, 2016: Commodity Margin includes interim adjustment of 17.671% effective January 1, 2016 - Docket No. G004/GR-15-879.

^{3/} Consolidated commodity and demand costs proposed in Docket No. G004/M-17-521 effective November 1, 2017.

^{4/} Historical periods include GCR rate of \$0.1627 (effective September 1, 2016 - Docket No. G004/AA-16-719); November includes GCR rate of \$0.1748 (effective September 1, 2017 - Docket No. G004/AA-17-493).

^{5/} Historical periods include CCRA of \$0.2125 (effective January 1, 2017 - Docket No. G004/M-16-384) and GAP of \$0.01393 (effective June 1, 2017 - Docket No. G004/M-16-495); November includes CCRA of \$0.2097 (Docket No. G004-M-17-338), GAP of \$0.01393, GUIC of \$0.1485 for residential and \$0.1117 for firm general (effective November 1, 2017 - Docket No. G004/M-16-1066).

GREAT PLAINS NATURAL GAS CO. DEMAND ENTITLEMENT ANALYSIS -UPDATE-

	Nu	mber of Firm Cu	stomers	Des	sign Day Requirer	ment	Total Entitlement + Storage + Peak Shaving			
Heating Season	(1) Number of Customers	(2) Change From Previous Year	(3) % Change From Previous Year	(4) Design Day (dk)	(5) Change From Previous Year	(6) % Change From Previous Year	(7) Total Entitlement (dk)	(8) Change From Previous Year	(9) % Change From Previous Year	(10) % of Reserve Margin [(7)-(4)]/(4)
2017-2018	23,997			32,733			35,345 34,445			8.0% 5.2%
Annual Aver	age		0.00%			0.00%			0.00%	8.0% 5.2%
	2	Firm Peak Day Se			.20 - 10		74.70			
	(11) Firm	(12)	(13)	(14) Excess Per	(15) Design Day	(16) Entitlement	(17) Peak Day			
Heating Season	Peak Day Sendout (dk)	Change From Previous Year	% Change From Previous Year	Customer [(7)-(4)]/(1)	per Customer (4)/(1)	per Customer (7)/(1)	Sendout per Customer (11)/(1)			
2017-2018	0			0.1088 0.0713	1.3640	1.4729 1.4354	0.0000			
Annual Aver	age		0.00%	0.1088 0.0713	1.3640	1.4729 1.4354	0.0000			