

May 22, 2008

Secretary, Chief Regulatory Law Judge Missouri Public Service Commission 200 Madison Street Jefferson City, MO 65101

RE: Case No.

Included is the electronic copy of PSC MO. No. 2 2<sup>nd</sup> revised Sheet No. 62, 2<sup>nd</sup> Revised Sheet No. 63 and 2<sup>nd</sup> Revised Sheet No. 65 reflecting a change in the Purchased Gas Adjustment ("PGA") for The Empire District Gas Company ("EDG").

Enclosures 1, 2 and 3 reflect the purchased gas cost calculations for EDG's South, North and Northwest gas distribution systems. Each of the PGA factors has been developed using NYMEX pricing weighted for the months of June 2008 through October 2008, less a basis adjustment for each of the interstate pipelines delivering the gas to EDG's gas distribution systems. Each of the PGA factors has also been developed using the interstate pipeline rates in effect for the pipelines delivering gas to EDG's gas distribution systems. The pipeline charges for the South system are based on the Southern Star Central Gas Pipeline, Inc. filings of their FERC Gas Tariffs, Sub-6<sup>th</sup> Revised Sheet No. 10, 1<sup>st</sup> Revised Sheet No. 10A, 10<sup>th</sup> Revised Sheet No. 11 and 8th Revised Sheet No. 12. The pipeline charges for the North system are based on the Panhandle Eastern Pipe Line Company's FERC tariffs, 16<sup>th</sup> Revised Sheet No. 5, 16<sup>th</sup> Revised Sheet No. 8, 5<sup>th</sup> Revised Sheet No. 14 and 5<sup>th</sup> Revised Sheet No. 19. The pipeline charges for the Northwest system are based on ANR's FERC Tariffs, 10<sup>th</sup> Revised Sheet No. 6, 48<sup>th</sup> Revised Sheet No. 17, 14<sup>th</sup> Revised Sheet No. 17A and 25<sup>th</sup> Revised Sheet No. 19. The pipeline charges on Chevenne Plains are based on FERC tariffs, 5<sup>th</sup> Revised Sheet No. 20. Due to the current high cost of natural gas, the PGA calculations for each of the systems supported a larger increase in the PGA factors than EDG is requesting at this time. EDG has limited the increase in each of the PGA rates to \$3.00 per Mcf or \$0.30 per Ccf.

Enclosures 5, 6 and 7 reflect the estimated impact of EDG's PGA request on each of the EDG distribution systems' PGA revenue from June 2008 through October 2008. As indicated, the impact on the gas cost recovery portion of the rates currently authorized for each of the systems is as follows:

System	PGA Increase	Percentage
South	\$1,248,584	37.82
North	\$425,158	37.53
Northwest	\$257,479	43.86

Secretary, Chief Regulatory Law Judge May 22, 2008 Page 2

The Empire District Gas Company requests that these new PGA rates become effective with volumes taken on and after June 6, 2008.

Sincerely,

W.fcott Kith

W. Scott Keith Director of Planning and Regulatory

Enclosures cc: Office of the Public Counsel

South System Line Loss Annual Burnertip Sales		1.871% 3,064,011		
		0,001,011		
<u>SSTAR Rates</u> Firm Rates				
TSS				
No-Notice Fee	¢	0.0213		
Reservation - FSS Deliverability	\$ ¢	1.1285		
Reservation - FSS Capacity	\$ \$ \$ \$ \$	0.0018		
Reservation - FTS-P	φ ¢	8.1578		
Reservation - FTS-M	ው ው	5.1860		
	ф Ф			
GRI FTS	Ф	-		
Production - Reservation	¢	0 1570		
	\$	8.1578		
Production - Balancing	<b>D</b>	-		
Market - Reservation	\$ \$ \$	5.1860		
Market - Balancing	\$	-		
Market - GRI	\$	-	Seasonal Sales Vo	
			Nov 07	340,640
Production	•		Dec07	539,482
Commodity - FTS-P	\$	0.0080	Jan 08	593,929
GRI Funding Unit - Commodity - Others	\$	-	Feb 08	475,193
FERC Annual Charge Adjustment	\$	0.0019	Mar 08	368,786
Production Field Zone	\$	0.0099	Apr 08	196,662
			May 08	109,555
Commodity - FTS-M	\$	0.0049	Jun 08	62,180
GRI Funding Unit - Commodity - Others	\$	-	Jul 08	59,924
FERC Annual Charge Adjustment	<u>\$</u>	0.0019	Aug 08	62,405
Market Zone	\$	0.0068	Sep 08	83,105
			Oct 08	<u>172,150</u>
Injection/Withdrawal - FSS	\$	0.0116		3,064,011
Interruptible Rates				
ITS-P				
Commodity	\$	0.2762		
ITS-M				
Commodity	\$	0.1754		
GRI Funding Unit - Commodity - Others	\$	-		
FERC Annual Charge Adjustment	\$	0.0019		
SSTAR Production Area Loss	•	2.57%		
SSTAR Market Area Loss		0.91%		
SSTAR Storage Loss		7.05%		

#### Note: From FERC Gas Tariff: Sub 6th Revised Sheet No. 10 Effective 6/1/08; 1st Revised Sheet No. 10A Effective 6/1/08; 10th Revised Sheet No. 11 Effective 6/1/08; and 8th Revised Sheet No. 12 Effective 6/1/08

Calculated Inputs			Total		Total
	<u>Firm</u>	Storage	<u>Firm</u>	Interruptible	<u>System</u>
Annual Throughput at Burnertip per Sales Forecast	2,347,586	716,425	3,064,011	0	3,064,011
Annual Throughput at Citygate	2,391,223	730,085	3,121,308	0	3,121,308
Annual Throughput at Production Area	2,492,135	749,343	3,241,478	0	3,241,478

# **Enclosure 1** Page 1 of 4

# Empire District Gas Company South System Gas Cost Inputs

# Enclosure 1

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FIRM Southern Star Pipeline	Annual <u>Volume</u>	Monthly Capacity <u>Reserved</u>	No. of Mth <u>Reserved</u>	Tariff <u>Rate</u>		Annual <u>Cost</u>
TSS No-Notice Fee Reservation - FSS Deliverability Reservation - FTS-Production Reservation - FTS-Market GRI		39,618 23,928 14,119 39,618 0	12 12 12 12 12	\$ 0.0213 \$ 1.1285 \$ 8.1578 \$ 5.1860 \$ -	\$ \$	10,122 324,021 1,382,151 2,465,527
FTS Production - Reservation Production - Balancing Market - Reservation Market - Balancing Market - GRI Cheynne Plains Pipeline		10,651 0 13,491 0 0	12 12 12 12 12 12	\$ 8.1578 \$ - \$ 5.1860 \$ - \$ -	\$ \$	1,042,658 - 839,579 -
Reservation	65.00%	6 10,000	12	\$ 10.6924		\$834,007
Pipeline Commodity Costs	3,241,478			\$ 0.0199	<u>\$</u>	64,560
Total Transportation Costs					\$	6,962,625
Natural Gas Purchases	3,241,478			\$ 9.6526	\$	31,288,547
Total Annual Cost					\$	38,251,172
Sales Volume at Burnertip Cost per MCF at Burnertip	3,064,011				\$	12.4840
Highest WACOG	Sept 04 - Aug 05 \$ 6.3009 Highest Avg WACOG-		\$ 6.6300	\$ 7.0477		
INTERRUPTIBLE Southern Star Pipeline ITS-P				@150%		
Commodity ITS-M				\$ 0.4172 <u>@150%</u>		0.4172
Commodity Cheynne Plains Pipeline				\$ 0.2660	\$	0.2660
Reservation	65.00%	6 10,000	12	\$ 10.6924	\$	0.2722
Pipeline Commodity Costs					\$	0.0199
Natural Gas Purchase Price per MCF	\$ 9.6526				\$	9.6526
Total Annual Cost					\$	10.6278
Sales Volume at Burnertip Cost per MCF at Burnertip					\$	10.6278

# Empire District Gas Company South System Gas Cost Inputs Cheyenne Plains Transportation Charges

Firm Transportation - FT		
Reservation Rate	\$	10.6924
Commodity Rate ACA Charge	\$ \$	0.0010 0.0019
Fuel Percentage L & U Percentage		0.90% -0.19%

#### Note: From FERC Gas Tariff: 5th Revised Sheet No. 20 Effective 10/1/07

Distribution	<u>SS</u>	PEPL	ANR	Total
Volume Percentage	65%	23%	12%	100.00%
Volume Flow through Cheyenne Plains				
Nov 07	300,000	-	-	
Dec07	310,000	-	-	
Jan 08	300,000	-	-	
Feb 08	290,000	-	-	
Mar 08	310,000	-	-	
Apr 08	124,000	124,000	62,000	
May 08	124,000	124,000	62,000	
Jun 08	120,000	120,000	60,000	
Jul 08	124,000	124,000	62,000	
Aug 08	124,000	124,000	62,000	
Sep 08	120,000	120,000	60,000	
Oct 08	124,000	124,000	62,000	
	2,370,000	860,000	430,000	3,660,000

#### **Empire District Gas Company** South System Current Gas Cost Calculation

<u>Jun-08</u>	<u>Jul-08</u>	<u>Aug-08</u>	Sep-08	Oct-08	Totals
62,180	59,924	62,405	83,105	172,150	439,764
1.87%	<u>1.87%</u>	<u>1.87%</u>	1.87%	<u>1.87%</u>	
1,163	1,121	1,168	1,555	3,221	8,228
63,343	61,045	63,573	84,660	175,371	447,992
0.91%	0.91%	0.91%	0.91%	0.91%	
2.57%	2.57%	2.57%	2.57%	2.57%	
2,204	2,125	2,213	2,946	6,103	15,591
120,000	124,000	124,000	120,000	124,000	
0.71%	0.71%	0.71%	0.71%	0.71%	
852	880	880	852	880	4,344
66,399	64,050	66,666	88,458	182,354	467,927
120,000	124,000	124,000	120,000	124,000	612,000
7.05%	7.05%	7.05%	7.05%	7.05%	
129,102	133,405	133,405	129,102	133,405	
	62,180 <u>1.87%</u> 1,163 63,343 0.91% <u>2.57%</u> 2,204 120,000 <u>0.71%</u> 852 66,399 120,000 <u>7.05%</u>	$\begin{array}{c c} & - & - & - \\ \hline 62,180 & 59,924 \\ \hline 1.87\% & 1.87\% \\ \hline 1,163 & 1,121 \\ \hline 63,343 & 61,045 \\ \hline 0.91\% & 0.91\% \\ \hline 2.57\% & 2.57\% \\ \hline 2.204 & 2,125 \\ \hline 120,000 & 124,000 \\ \hline 0.71\% & 852 & 880 \\ \hline 66,399 & 64,050 \\ \hline 120,000 & 124,000 \\ \hline 7.05\% & 7.05\% \\ \hline \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	62,180         59,924         62,405         83,105         172,150 $1.87\%$ $1.87\%$ $1.87\%$ $1.87\%$ $1.87\%$ $1.87\%$ $1,163$ $1,121$ $1,168$ $1.555$ $3,221$ $63,343$ $61,045$ $63,573$ $84,660$ $175,371$ $0.91\%$ $0.91\%$ $0.91\%$ $0.91\%$ $0.91\%$ $2.57\%$ $2.57\%$ $2.57\%$ $2.57\%$ $2.57\%$ $2.204$ $2,125$ $2,213$ $2,946$ $6,103$ $120,000$ $124,000$ $120,000$ $124,000$ $880$ $852$ $880$ $66,399$ $64,050$ $66,666$ $88,458$ $182,354$ $120,000$ $124,000$ $120,000$ $124,000$ $7.05\%$ $7.05\%$ $7.05\%$ $7.05\%$

(Storage injection is noted on spreadsheet but not included in commodity cost calculation because EDG does not pay for storage until it is withdrawn in the winter months.)

Purchase Requirements at Production Area		66,399	64,050		66,666		88,458		182,354		467,927	
Contracted Financial Futures		0	0		0		0		0		0	
Contracted Price less Forecasted Basis	\$	-	\$ -	\$	-	\$	-	\$	-		0	
Total Cost	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	
Physical Forwards		0	0		0		0		0		-	
Average Price	\$	-	\$ -	<u>\$</u> \$		\$	-	\$	-			
Total Cost	\$	-	\$ -	\$	-	\$	-	\$	-	\$	-	
Natural Gas Market - Mid Continent		66,399	64,050		66,666		88,458		182,354			
Forecasted Price (NYMEX-WNG Basis)	\$	9.399	\$ 9.564	\$	9.659	\$	9.689	\$	9.756			
Natural Gas Market - Cheyenne Plains		0	0		0		0		0			
Forecasted Price (NYMEX-CIG Basis)	\$	8.531	\$ 8.779	\$	8.819	\$	8.422	\$	8.213			
Total Natural Gas Purchased at Market		66,399	64,050		66,666		88,458		182,354		467,927	
Total Cost	\$	624,084	\$ 612,574	\$	643,927	\$	857,070	\$	1,779,046	\$	4,516,701	
Storage Withdrawal		0	0		0		0		0		0	
Storage WACOG	\$	- 1	\$ 	\$		\$		\$				
Total Cost	<mark>\$</mark> \$	-	\$ -	<mark>\$</mark> \$	-	<mark>\$</mark> \$	-	\$	-	\$	-	
Forecasted Gas Commodity Cost	\$	624,084	\$ 612,574	\$	643,927	\$	857,070	\$	1,779,046	\$	4,516,701	
Purchase Requirements at Production Area		66,399	64,050		66,666		88,458		182,354		467,927	
Gas Commodity Cost/Dth										\$	9.6526	
SUMMARY OF PIPELINE COMMODITY COSTS												
Southern Star Natural Gas Pipeline - Firm FT Commodity (Production Area Volume)		64.406	62.070		64,639		86.080		178,314			
FT Commodity (Market AreaVolume)		62,751	60,474		62,978		83,868		173,731			
Cost/Dth - Production Area		\$0.0099	\$0.0099		\$0.0099		\$0.0099		\$0.0099			
Cost/Dth - Market Area		\$0.0068	\$0.0068		\$0.0068		\$0.0068		\$0.0068			
Total SSTAR Pipeline Commodity Costs Cheyenne Plains Pipeline -Firm	\$	1,064	\$ 1,026	\$	1,068	\$	1,422	\$	2,947	\$	7,527	
Cost/Dth - Commodity		0.0010	0.0010		0.0010		0.0010		0.0010			
Cost/Dth - ACA	_	0.0019	 0.0019		0.0019	_	0.0019	_	0.0019			
Total Cheyenne Plains Commodity Costs	\$	348	\$ 360	\$	360	\$	348	\$	360	\$	1,776	
Forecasted Pipeline Commodity Costs	\$	1,412	\$ 1,386	\$	1,428	\$	1,770	\$	3,307	\$	9,303	
Purchase Requirements at Production Area		66,399	64,050		66,666		88,458		182,354		467,927	Page
Pipeline Commodity Cost/Dth										\$	0.0199	Page 4 of 4
							Production	۵r۵	a Cost Gar	¢	9.6725	~

Enclosure 1

## Empire District Gas Company North System Gas Cost Inputs

North System Line Loss Annual Burnertip Sales		3.489% 1,043,332		
PEPL Rates PEPL EFT Reservation Rates Field Zone Reservation Market Zone Access Market Zone Mileage 201-300 Block GRI Funding Unit Settlement Surcharges Canadian Resolution Surcharges GSR Surcharge Stranded Transportation Cost Surcharge Miscellaneous Stranded Costs Surcharge	***	Tariff <u>Rate</u> 4.7200 3.2900 1.8000 - - - - - - - -		
PEPL EFT Commodity Rates Field Zone Commodity Market Zone Access Market Zone Mileage 201-300 Block GRI Funding Unit ACA Unit Charge TOP Volumetric Surcharge Settlement Surcharges Total Market Zone Commodity	\$ \$ \$ \$ \$ \$ \$ \$	0.0195 0.0006 0.0075 - 0.0019 - - 0.0100		
PEPL IT Interruptible Rates - Transmission Charges Field Zone Market Zone Access Market Zone Mileage 201-300 Block GRI Funding Unit ACA Unit Charge TOP Volumetric Surcharge Settlement Surcharges Canadian Resolution Surcharges Stranded Transportation Cost Surcharge Miscellaneous Stranded Costs Surcharge	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	0.1750 0.1091 0.0666 - 0.0019 - - - - -	Seasonal Sales Vo Nov 07 Dec07 Jan 08 Feb 08 Mar 08 Apr 08 May 08 Jun 08 Jun 08 Jul 08 Aug 08 Sep 08 Oct 08	115,203 183,703 201,971 162,237 126,785 67,379 37,685 21,689 20,112 20,731 27,565 58,272
PEPL Storage Rates Deliverability Charge Field Area Capacity Charge Field Area	\$ \$	3.3500 0.4028		1,043,332
PEPL Field Zone Loss (Fuel Reimbursement-Trans Chrg) PEPL Market Zone Loss (Mileage 201-300 Fuel Reimb) PEPL Storage Injection Loss (Field Area) (Fuel Reimb)		0.95% 1.68% 1.96%		

PEPL Storage Injection Loss (Field Area) (Fuel Reimb) PEPL Storage Withdrawal Loss (Field Area) (Fuel Reimb)

Note: From FERC Gas Tariff: PEPL 16th Revised Sheet No. 5 Effective 11/1/07; 16th Revised Sheet No. 8 Effective11/1/07; 5th Revised Sheet No. 14 Effective 11/01/07; 5th Revised Sheet No. 19 Effective 10/1/07

Calculated Inputs			Total		
	<u>Firm</u>	Storage	<u>Firm</u>	Interruptible	<u>Total</u>
Annual Throughput at Burnertip per Sales Forecast	321,034	722,298	1,043,332	0	1,043,332
Annual Throughput at Citygate	331,334	748,410	1,079,744	0	1,079,744
Annual Throughput at Production Area	331,393	784,415	1,115,808	0	1,115,808

0.93%

#### Empire District Gas Company North System Gas Cost Inputs

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Transportation Firm Panhandle Eastern Pipe Line Contract 17005	Annual <u>Volume</u>	Monthly Capacity <u>Reserved</u>	No. Of Days <u>Reserved</u>	Tariff/ Contracted <u>Rate</u>		Annual <u>Cost</u>
EFT Reservation Rates Contracted Winter Volumes and rate Contracted Summer Volumes and rate		17,000 9,000	151 214			827,820 640,376
Contract 17004 FS Storage		800,000	365	\$ 0.4028	\$	322,240
Contracted Winter Volumes & Rate Contracted Summer Volumes & Rate		14,000 6,000	151 214	\$ 0.1109	\$	234,527 142,447
Cheynne Plains Pipeline Reservation	23.00%	10,000	Months 12	\$ 10.6924	\$	295,110
Pipeline Commodity Costs Total Transportation Costs	1,115,808			\$ 0.0387	<u>\$</u> \$	43,213 2,505,732
Natural Gas Purchases	1,115,808			\$ 9.5084	\$	10,609,498
Total Annual Cost					\$	13,115,230
Sales Volume at Burnertip Cost per MCF at Burnertip	1,043,332				\$	12.5705
Highest WACOG	Sept 04 - Aug 05 \$ 5.9323 Highest Avg WAC	Sept 05 - Aug 06 \$7.6105 OG-(Avg with the hi	Sept 06 - Aug 07 \$ 4.8279 ghest 3 averages	\$ 6.1236		
INTERRUPTIBLE Panhandle Eastern Pipe Line IT Interruptible Rates Field Zone Market Zone Access Market Zone Mileage GRI Funding Unit ACA Unit Charge TOP Volumetric Surcharge Settlement Surcharges Canadian Resolution Surcharges Stranded Transportation Cost Surcharge Miscellaneous Stranded Costs Surcharge				@ 150%         \$       0.2625         \$       0.1637         \$       0.0999         \$       -         \$       0.0029         \$       -         \$       -         \$       -         \$       -         \$       -         \$       -         \$       -         \$       -         \$       -         \$       -         \$       -         \$       -         \$       -	\$	0.2625 0.1637 0.0999 - 0.0029 - - - - - - - -

23.00%

9.5084

\$

10,000

12 \$

10.6924 \$

\$

\$

\$

Reservation
Pipeline Commodity Costs

Cheynne Plains Pipeline

Natural Gas Purchase Price per MCF

Total Annual Cost

Sales Volume at Burnertip Cost per MCF at Burnertip

\$10.3589

0.2829

0.0387

9.5084

10.3589

#### Empire District Gas Company North System Gas Cost Inputs Cheyenne Plains Transportation Charges

Firm Transportation - FT	
Reservation Rate	\$ 10.6924
Commodity Rate	\$ 0.0010
ACA Charge	\$ 0.0019
Fuel Percentage	0.90%
L & U Percentage	-0.19%

#### Note: From FERC Gas Tariff: 5th Revised Sheet No. 20 Effective 10/1/07

Distribution		<u>SS</u>	<u>PEPL</u>	ANR	<u>Total</u>
Volume Percentage		65%	23%	12%	100.00%
-	Volume Flow through Cheyenne Plains				
	Nov 07	300,000		-	
	Dec07	310,000		-	
	Jan 08	300,000	-	-	
	Feb 08	290,000	-	-	
	Mar 08	310,000		-	
	Apr 08	124,000	124,000	62,000	
	May 08	124,000	124,000	62,000	
	Jun 08	120,000	120,000	60,000	
	Jul 08	124,000	124,000	62,000	
	Aug 08	124,000	124,000	62,000	
	Sep 08	120,000	120,000	60,000	
	Oct 08	124,000	124,000	62,000	
		2,370,000	860,000	430,000	3,660,000

#### Empire District Gas Company North System Current Gas Cost Calculation

	<u>Jun-08</u>	<u>Jul-08</u>	<u>Aug-08</u>	<u>Sep-08</u>	<u>Oct-08</u>	Totals
SUMMARY OF COMMODITY COSTS Sales Requirements	21,689	20,112	20,731	27,565	58,272	148,369
North System Loss North System Loss Volume	<u>3.49%</u> 757	<u>3.49%</u> 702	<u>3.49%</u> 723	<u>3.49%</u> 962	<u>3.49%</u> 2,033	5,177
City Gate Volume	22,446	20,814	21,454	28,527	60,305	153,546
PEPL Market Zone Fuel Loss PEPL Field Zone Fuel Loss PEPL - Fuel Loss	1.68% <u>0.95%</u> 570	1.68% <u>0.95%</u> 529	1.68% <u>0.95%</u> 545	1.68% <u>0.95%</u> 725	1.68% <u>0.95%</u> 1,533	3,902
Cheynne Plains Volume Cheyenne Plains Fuel + L&U Loss Cheyenne Plains - Fuel Loss	120,000 <u>0.71%</u> 852	124,000 <u>0.71%</u> 880	124,000 <u>0.71%</u> 880	120,000 <u>0.71%</u> 852	124,000 <u>0.71%</u> 880	4,344
Purchase Requirements at Production Area	23,868	22,223	22,879	30,104	62,718	161,792
Storage Injection Storage Injection Loss Total Storage - Fuel Loss (Storage injection is patied on spreadsheet but not inclu	120,000 <u>1.96%</u> 122,399	124,000 <u>1.96%</u> 126,479	124,000 <u>1.96%</u> 126,479	120,000 <u>1.96%</u> 122,399	124,000 <u>1.96%</u> 126,479	612,000

(Storage injection is noted on spreadsheet but not included in commodity cost calculation because EDG does not pay for storage until it is withdrawn in the winter months.)

Purchase Requirements at Production Area		23,868		22,223		22,879		30,104		62,718		161,792	
Physical Forwards		0		0		0		0		0		0	
Average Price	\$	-	\$	-	\$	-	\$	-	\$	-			
Total Cost	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	
Natural Gas Market - Mid Continent		23,868		22,223		22,879		30,104		62,718			
Forecasted Price (NYMEX-PEPL Basis)	\$	9.246	\$	9.584	\$	9.761	\$	9.584	\$	9.453			
Natural Gas Market - Cheyenne Plains Forecasted Price (NYMEX-CIG Basis)	\$	0 8.531	\$	0 8.779	\$	0 8.819	\$	0 8.422	\$	0 8.213			
Total Natural Gas Purchased at Market	<u> </u>	23.868	÷	22.223	<u> </u>	22,879	<u> </u>	30.104	÷	62.718		161.792	
Total Cost	\$	220,684	\$	212,985	\$	223,322	\$	288,517	\$		\$	1,538,381	
Storage Withdrawal (17007)		0		0		0		0		0		0	
Storage WACOG (17007)	\$	- 0	\$	- 0	\$	- 0	\$	- 0	\$	- 0		0	
Total Cost	\$		\$		\$		\$		\$		\$		
	Ψ		Ψ		Ψ		Ψ		Ψ		Ψ		
Forecasted Gas Commodity Cost	\$	220,684	\$	212,985	\$	223,322	\$	288,517	\$	592,873	\$	1,538,381	
Purchase Requirements at Production Area		23,868		22,223		22,879		30,104		62,718		161,792	
Gas Commodity Cost/Dth											\$	9.5084	
SUMMARY OF PIPELINE COMMODITY COSTS													
Panhandle Eastern Pipeline - Firm													
FT Commodity (Field Zone Volume)		22,271		20,652		21,287		28,305		59,836			
		22,271 <u>22,060</u>		20,652 <u>20,456</u>		21,287 <u>21,085</u>		28,305 <u>28,036</u>		59,836 <u>59,268</u>			
FT Commodity (Field Zone Volume)													
FT Commodity (Field Zone Volume) FT Commodity (Market Zone Volume)		22,060		20,456		21,085		28,036		59,268			
FT Commodity (Field Zone Volume) FT Commodity (Market Zone Volume) Cost/Dth - Field Zone	\$	<u>22,060</u> \$0.0195	\$	<u>20,456</u> \$0.0195	\$	<u>21,085</u> \$0.0195	\$	<u>28,036</u> \$0.0195	\$	<u>59,268</u> \$0.0195	\$	4,480	
FT Commodity (Field Zone Volume) FT Commodity (Market Zone Volume) Cost/Dth - Field Zone Cost/Dth - Market Zone	\$	22,060 \$0.0195 \$0.0100	\$	20,456 \$0.0195 \$0.0100	\$	21,085 \$0.0195 <u>\$0.0100</u>	\$	28,036 \$0.0195 \$0.0100	\$	<u>59,268</u> \$0.0195 <u>\$0.0100</u>	\$	4,480	
FT Commodity (Field Zone Volume) FT Commodity (Market Zone Volume) Cost/Dth - Field Zone Cost/Dth - Market Zone Total Panhandle PipelineCommodity Costs Cheyenne Plains Pipeline -Firm Cost/Dth - Commodity	\$	22,060 \$0.0195 \$0.0100	\$	20,456 \$0.0195 \$0.0100	\$	21,085 \$0.0195 <u>\$0.0100</u> 626 \$0.0010	\$	28,036 \$0.0195 \$0.0100	\$	59,268 \$0.0195 <u>\$0.0100</u> 1,759 \$0.0010	\$	4,480	
FT Commodity (Field Zone Volume) FT Commodity (Market Zone Volume) Cost/Dth - Field Zone Cost/Dth - Market Zone Total Panhandle PipelineCommodity Costs Cheyenne Plains Pipeline -Firm Cost/Dth - Commodity Cost/Dth - ACA	\$	22,060 \$0.0195 <u>\$0.0100</u> 655 \$0.0010 <u>\$0.0019</u>	•	20,456 \$0.0195 \$0.0100 607	·	21,085 \$0.0195 \$0.0100 626 \$0.0010 \$0.0019	•	28,036 \$0.0195 \$0.0100 832 \$0.0010 \$0.0010	·	59,268 \$0.0195 <u>\$0.0100</u> 1,759	\$	,	
FT Commodity (Field Zone Volume) FT Commodity (Market Zone Volume) Cost/Dth - Field Zone Cost/Dth - Market Zone Total Panhandle PipelineCommodity Costs Cheyenne Plains Pipeline -Firm Cost/Dth - Commodity	\$	22,060 \$0.0195 <u>\$0.0100</u> 655 \$0.0010	•	20,456 \$0.0195 <u>\$0.0100</u> 607 \$0.0010	•	21,085 \$0.0195 <u>\$0.0100</u> 626 \$0.0010	•	28,036 \$0.0195 <u>\$0.0100</u> 832 \$0.0010	·	59,268 \$0.0195 <u>\$0.0100</u> 1,759 \$0.0010		4,480 1,775	
FT Commodity (Field Zone Volume) FT Commodity (Market Zone Volume) Cost/Dth - Field Zone Cost/Dth - Market Zone Total Panhandle PipelineCommodity Costs Cheyenne Plains Pipeline -Firm Cost/Dth - Commodity Cost/Dth - ACA	·	22,060 \$0.0195 <u>\$0.0100</u> 655 \$0.0010 <u>\$0.0019</u>	\$	20,456 \$0.0195 \$0.0100 607 \$0.0010 \$0.0010	\$	21,085 \$0.0195 \$0.0100 626 \$0.0010 \$0.0019	\$	28,036 \$0.0195 \$0.0100 832 \$0.0010 \$0.0010	\$	59,268 \$0.0195 <u>\$0.0100</u> 1,759 \$0.0010 <u>\$0.0019</u>	\$	,	σ
FT Commodity (Field Zone Volume) FT Commodity (Market Zone Volume) Cost/Dth - Field Zone Cost/Dth - Market Zone Total Panhandle PipelineCommodity Costs Cheyenne Plains Pipeline -Firm Cost/Dth - Commodity Cost/Dth - ACA Total Cheyenne Plains Comm Costs	\$	22,060 \$0.0195 \$0.0100 655 \$0.0010 \$0.0019 348	\$	20.456 \$0.0195 \$0.0100 607 \$0.0010 \$0.0019 360	\$	21,085 \$0.0195 \$0.0100 626 \$0.0010 \$0.0019 360	\$	28.036 \$0.0195 \$0.0100 832 \$0.0010 \$0.0019 348	\$	<u>59.268</u> \$0.0195 <u>\$0.0100</u> 1,759 \$0.0010 <u>\$0.0019</u> <u>360</u>	\$	1,775	Page
FT Commodity (Field Zone Volume) FT Commodity (Market Zone Volume) Cost/Dth - Field Zone Cost/Dth - Market Zone Total Panhandle PipelineCommodity Costs Cheyenne Plains Pipeline - Firm Cost/Dth - Commodity Cost/Dth - ACA Total Cheyenne Plains Comm Costs <u>Forecasted Pipeline Commodity Costs</u>	\$	22,060 \$0.0195 \$0.0100 655 \$0.0010 \$0.0019 348 655	\$	20.456 \$0.0195 \$0.0100 607 \$0.0010 \$0.0019 360 607	\$	21,085 \$0.0195 \$0.0100 626 \$0.0010 \$0.0019 360 626	\$	28.036 \$0.0195 \$0.0100 832 \$0.0010 \$0.0019 348 832	\$	<u>59,268</u> \$0.0195 <u>\$0.0100</u> 1,759 \$0.0010 <u>\$0.0019</u> 360 1,759	\$	1,775 6,255	Page 4 of 4

Enclosure 2

Production Area Cost of Gas \$ 9.5471

### Empire District Gas Company Northwest System Gas Cost Inputs

Northwest System Line Loss Annual Burnertip Sales		3.70% 631,850
ANR RATES Transport Charge-STS SW Area Mainline Annual Charge Adjustment GRI Charge Deferred Transportation Cost Adj - STS (All Segments) Rate Adjustment	\$ \$ \$ \$ \$ \$ \$ \$	0.9223 0.0019 - (0.0117) - 0.9125
Transport Use Fee (1) - SW Southern Segment (ML-5) Transport Use Fee (2) - SW Central Segment (ML-6) Storage Use Fee - FSS and DDS Storage Services		1.34% 2.78% 1.07%

Note: From FERC Gas Tariff: ANR 10th Revised Sheet No. 6 Effective 11/01/06; 48th Revised Sheet No. 17 Effective 10/1/2007; 14th Revised Sheet No. 17A Effective 5/1/06; and 25th Revised Sheet No. 19 Effective 4/1/2008.

Seasonal Sales Volume @ Burnertip						
Nov 07	69,202					
Dec07	115,167					
Jan 08	126,973					
Feb 08	101,534					
Mar 08	79,808					
Apr 08	38,702					
May 08	20,590					
Jun 08	10,416					
Jul 08	10,049					
Aug 08	10,552					
Sep 08	15,107					
Oct 08	33,750					
TOTAL	631,850					
Calculated Inputs			Total			
<u></u>	Firm	Storage	Firm	Interruptible		Total
Annual Throughput at Burnertip per Sales Forecast	255,459	376,391	631,850		0	631,850
Annual Throughput at Citygate	264,375	390,853	655,228		0	655,228
Annual Throughput at Production Area	277,740	396,162	673,902		0	673,902

## Empire District Gas Company Northwest System Gas Cost Inputs

Transportation Firm	Sea	nual/ Isonal I <u>ume</u>	Monthly Capacity <u>Reserved</u>		f Mths erved	Tariff <u>Rate</u>	Annual <u>Cost</u>
Chevnne Plains Pipeline Reservation		12.00%	10,000	1	2	\$ 10.6924	\$ 153,971
ANR Transportation Cost		673,902				\$ 0.9125	\$ 614,907
Pipeline Commodity Costs		673,902				\$ 0.0102	\$ 6,845
Total Transportation Costs							\$ 775,723
Natural Gas Purchases		673,902				\$ 9.6338	\$ 6,492,262
Total Annual Cost							\$ 7,267,985
Sales Volume at Burnertip Cost per MCF at Burnertip		631,850					\$ 11.5027
Highest WACOG		Highe	Sept 04 - Aug 05 \$ 5.9241 est Avg WACOG-	\$	7.4762	\$ 5.9712	\$ erage WACOG 6.4572 6.9667
INTERRUPTIBLE							
Cheynne Plains Pipeline Reservation		12.00%	10,000		12	\$ 10.6924	\$ 0.2437
Pipeline Commodity Costs					@4500/		\$ 0.0102
ANR Transportation Cost				\$	<u>@150%</u> 1.3863		\$ 1.3863
Natural Gas Purchase Price per MCF	\$	9.6338					\$ 9.6338
Total Annual Cost							\$ 11.2740
Sales Volume at Burnertip Cost per MCF at Burnertip		631,850					\$ 11.2740

## Empire District Gas Company Northwest System Gas Cost Inputs Cheyenne Plains Transportation Charges

Firm Transportation - FT	
Reservation Rate	\$ 10.6924
Commodity Rate	\$ 0.0010
ACA Charge	\$ 0.0019
Fuel Percentage	0.90%
L & U Percentage	-0.19%

Note: From FERC Gas Tariff: 5th Revised Sheet No. 20 Effective 10/1/07

Distribution	<u>SS</u>	PEPL	ANR	<u>Total</u>
Volume Percentage	65%	23%	12%	100.00%
Volume Flow through Cheyenne Plains				
Nov 07	300,000	-	-	
Dec07	310,000	-	-	
Jan 08	300,000	-	-	
Feb 08	290,000	-		
Mar 08	310,000	-		
Apr 08	124,000	124,000	62,000	
May 08	124,000	124,000	62,000	
Jun 08	120,000	120,000	60,000	
Jul 08	124,000	124,000	62,000	
Aug 08	124,000	124,000	62,000	
Sep 08	120,000	120,000	60,000	
Oct 08	124,000	124,000	62,000	
	2,370,000	860,000	430,000	3,660,000

#### Empire District Gas Company Northwest System Current Gas Cost Calculation

<u>Jun-08</u>	<u>Jul-08</u>	<u>Aug-08</u>	<u>Sep-08</u>	<u>Oct-08</u>	Totals
10,416	10,049	10,552	15,107	33,750	79,874
3.70%	3.70%	3.70%	3.70%	3.70%	0.055
385	372	390	559	1,249	2,955
10,801	10,421	10,942	15,666	34,999	82,829
3,381	3,276	3,116	4,157	10,755	
1.34%	1.34%	1.34%	1.34%	1.34%	
45	44	42	56	144	331
7,035	6,773	7,436	10,950	22,995	
<u>2.78%</u>	2.78%	2.78%	2.78%	2.78%	
196	188	207	304	639	1,534
60,000	62,000	62,000	60,000	62,000	
<u>0.71%</u>	<u>0.71%</u>	<u>0.71%</u>	<u>0.71%</u>	<u>0.71%</u>	
426	440	440	426	440	2,172
11,468	11,093	11,631	16,452	36,222	86,866
63,000	65,100	65,100	63,000	65,100	321,300
<u>1.07%</u>	<u>1.07%</u>	<u>1.07%</u>	<u>1.07%</u>	<u>1.07%</u>	
63,681	65,804	65,804	63,681	65,804	
	10,416 <u>3.70%</u> <u>385</u> 10,801 <u>3,381</u> <u>1.34%</u> <u>45</u> 7,035 <u>2.78%</u> <u>196</u> 60,000 <u>0.71%</u> <u>426</u> 11,468 63,000 <u>1.07%</u> 63,681	$\begin{array}{c ccccc} & & & & & & \\ \hline 10,416 & & 10,049 \\ \hline 3,70\% & & 3.70\% \\ \hline 385 & & 372 \\ \hline 10,801 & & 10,421 \\ \hline 3,381 & & 3,276 \\ \hline 1.34\% & & 1.34\% \\ \hline 45 & & 44 \\ \hline 7,035 & & 6,773 \\ \hline 2.78\% & & 2.78\% \\ \hline 196 & & 188 \\ \hline 60,000 & & 62,000 \\ \hline 0.71\% & & 0.71\% \\ \hline 426 & & 440 \\ \hline 11,468 & & 11,093 \\ \hline 63,000 & & 65,100 \\ \hline 1.07\% & & 1.07\% \\ \hline 63,681 & & 65,804 \\ \hline \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	10,416         10,049         10,552         15,107         33,750 $3.70\%$ $3.70\%$ $3.70\%$ $3.70\%$ $3.70\%$ $3.70\%$ $385$ $372$ $390$ $559$ $1,249$ $10,801$ $10,421$ $10,942$ $15,666$ $34,999$ $3,381$ $3.276$ $3,116$ $4,157$ $10,755$ $1.34\%$ $1.34\%$ $1.34\%$ $1.34\%$ $1.34\%$ $45$ $44$ $42$ $56$ $144$ $7,035$ $6,773$ $7.436$ $10,950$ $22,995$ $2.78\%$ $2.78\%$ $2.78\%$ $2.78\%$ $2.78\%$ $196$ $188$ $207$ $304$ $639$ $60,000$ $62,000$ $62,000$ $60,000$ $62,000$ $0.71\%$ $0.71\%$ $0.71\%$ $0.71\%$ $0.71\%$ $426$ $440$ $440$ $426$ $440$ $11,468$ $11,093$ $11,631$ $16,452$ $36,222$ $63,000$ </td

(Storage injection is noted on spreadsheet but not included in commodity cost calculation because EDG does not pay for storage until it is withdrawn in the winter months.)

Purchase Requirements at Production Area		11,468		11,093		11,631		16,452		36,222		86,866	
Physical Forwards Average Price	\$	0	\$	0	\$	0	\$	0	\$	0			
Total Cost	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	
Natural Gas Market - Mid Continent		11,468		11,093		11,631		16,452		36,222			
Forecasted Price (NYMEX-ANR Basis)	\$	9.309	\$	9.549	\$	9.644	\$	9.674	\$	9.741			
Natural Gas Market - Cheyenne Plains		0		0		0		0		0			
Forecasted Price (NYMEX-CIG Basis)	\$	8.531	\$	8.779	\$	8.819	\$	8.422	\$	8.213			
Total Natural Gas Purchased at Market		11,468		11,093		11,631		16,452		36,222		86,866	
Total Cost	\$	106,756	\$	105,927	\$	112,169	\$	159,157	\$	352,839	\$	836,848	
Storage Withdrawal		0		0		0		0		0		0	
Storage WACOG	\$	-	\$	-	\$		\$	-	\$	-			
Total Cost	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	
Forecasted Gas Commodity Cost	\$	106,756	\$	105,927	\$	112,169	\$	159,157	\$	352,839	\$	836,848	
Purchase Requirements at Production Area		11,468		11,093		11,631		16,452		36,222		86,866	
Gas Commodity Cost/Dth											\$	9.6338	
SUMMARY OF PIPELINE COMMODITY COSTS													
Cheyenne Plains Pipeline Cost/Dth - Commodity		0.0010		0.0010		0.0010		0.0010		0.0010			
Cost/Dth - ACA		0.0010		0.0010		0.0010		0.0010		0.0010			
Total Cheyenne Plains Pipeline Comm Costs	\$	174	¢	180	¢	180	¢	174	¢	180	¢	887	
rotal Cheyenne Flains Fipeline Contin Costs	φ	1/4	φ	100	φ	100	φ	1/4	φ	100	φ	007	
Forecasted Pipeline Commodity Costs	\$	174	\$	180	\$	180	\$	174	\$	180	\$	887	Page
Purchase Requirements at Production Area		11,468		11,093		11,631		16,452		36,222		86,866	le 4 of
Pipeline Commodity Cost/Dth											\$	0.0102	of 4

Enclosure 3

Production Area Cost of Gas \$ 9.6440

# **Enclosure 5**

### Empire District Gas Company South System 2008 Revenue Impact from PGA Filing

# **Original Calculation Filed**

PGA per l	MCF
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	Previous Total PGA		New Total PGA	PGA Change	Revenue Impact
Month	Factor	Month	Factor		
06/08	7.9333	06/08	10.9333	3.0000	\$275,761
07/08	7.9333	07/08	10.9333	3.0000	\$214,481
08/08	7.9333	08/08	10.9333	3.0000	\$206,821
09/08	7.9333	09/08	10.9333	3.0000	\$229,801
10/08	7.9333	10/08	10.9333	3.0000	\$321,721

### Estimated Change in Revenue \$1,248,584

### Percent Change Between PGA Factors 37.82%

2			
	Estimated		Estimated
	Customer Usage	Estimated %	Company Sales
Month	Mcf/Mnth	Mcf/Yr	Mcf/Mnth
Jan	23.6	19.67%	602,589
Feb	21.7	18.08%	554,075
Mar	15.9	13.25%	405,981
Apr	9.6	8.00%	245,121
Мау	5.3	4.42%	135,327
Jun	3.6	3.00%	91,920
Jul	2.8	2.33%	71,494
Aug	2.7	2.25%	68,940
Sep	3	2.50%	76,600
Oct	4.2	3.50%	107,240
Nov	9.7	8.08%	247,674
Dec	<u>17.9</u>	<u>14.92%</u>	457,048
TOTAL	120	100%	3,064,011

Sales Volume Forecast

3,064,011

Note: Estimated Customer Usage Obtained from Missouri Public Service Commission.

# **Enclosure 6**

### Empire District Gas Company North System 2008 Revenue Impact from PGA Filing

# **Original Calculation Filed**

Month	Previous Total PGA Factor	Month	New Total PGA Factor	PGA Change	Revenue Impact
06/08	7.9930	06/08	10.9930	3.0000	\$93,900
07/08	7.9930	07/08	10.9930	3.0000	\$73,033
08/08	7.9930	08/08	10.9930	3.0000	\$70,425
09/08	7.9930	09/08	10.9930	3.0000	\$78,250
10/08	7.9930	10/08	10.9930	3.0000	\$109,550

### Estimated Change in Revenue \$425,158

### Percent Change Between PGA Factors 37.53%

	Estimated		Estimated
	Customer Usage	Estimated %	Company Sales
Month	Mcf/Mnth	Mcf/Yr	Mcf/Mnth
Jan	23.6	19.67%	205,189
Feb	21.7	18.08%	188,669
Mar	15.9	13.25%	138,241
Apr	9.6	8.00%	83,467
Мау	5.3	4.42%	46,080
Jun	3.6	3.00%	31,300
Jul	2.8	2.33%	24,344
Aug	2.7	2.25%	23,475
Sep	3	2.50%	26,083
Oct	4.2	3.50%	36,517
Nov	9.7	8.08%	84,336
Dec	<u>17.9</u>	<u>14.92%</u>	155,630
TOTAL	120	100%	1,043,332

Sales Volume Forecast

1,043,332

Note: Estimated Customer Usage Obtained from Missouri Public Service Commission.

# **Enclosure 7**

### Empire District Gas Company Northwest System 2008 Revenue Impact from PGA Filing

#### Original Calculation Filed PGA per MCF

PGA per MC					
	Previous		New		
	Total PGA		Total PGA	PGA Change	Revenue Impact
Month	Factor	Month	Factor		(Winter Season)
06/08	6.8407	06/08	9.8407	3.0000	\$56,867
07/08	6.8407	07/08	9.8407	3.0000	\$44,230
08/08	6.8407	08/08	9.8407	3.0000	\$42,650
09/08	6.8407	09/08	9.8407	3.0000	\$47,389
10/08	6.8407	10/08	9.8407	3.0000	\$66,344

#### Estimated Change in Revenue \$257,479

### Percent Change Between PGA Factors 43.86%

	Estimated		Estimated
	Customer Usage	Estimated %	Company Sales
Month	Mcf/Mnth	Mcf/Yr	Mcf/Mnth
Jan	23.6	19.67%	124,264
Feb	21.7	18.08%	114,260
Mar	15.9	13.25%	83,720
Apr	9.6	8.00%	50,548
May	5.3	4.42%	27,907
Jun	3.6	3.00%	18,956
Jul	2.8	2.33%	14,743
Aug	2.7	2.25%	14,217
Sep	3	2.50%	15,796
Oct	4.2	3.50%	22,115
Nov	9.7	8.08%	51,075
Dec	<u>17.9</u>	<u>14.92%</u>	94,251
TOTAL	120	100%	631,850

Sales Volume Forecast

631,850

Note: Estimated Customer Usage Obtained from Missouri Public Service Commission.