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April 1, 1999

Missouri Public
Service Commission

UTILICORP UNITED
ENERGYONE

Mr. Dale Hardy Roberts, Secretary, Chief Regulatory Law Judge
Missouri Public Service Commission
301 West High
Jefferson City, MO 65101

Gas Supply Services

Dear Mr. Roberts:

~~GR-99-435~~
GR-99-435

Enclosed are an original and two copies of PSC MO. No. 5, 16th Revised Sheet No. 43, 19th Revised Sheet No. 44 and 9th Revised Sheet No. 44.1 reflecting a change in the Purchased Gas Adjustment of the Missouri Public Service Purchased Gas Adjustment Clause.

Enclosures 1, 2 and 3 reflect the Purchased Gas Adjustment calculations for the Southern System, Northern System and Eastern System. Each PGA has been developed using NYMEX pricing weighted for the months of April 1999 through October 1999. The tariff rate changes for the Southern System are based on the Williams Gas Pipelines Central, Inc. filings of their FERC Gas Tariffs, Substitute Fourth Revised Sheet No. 6, Substitute Seventh Revised Sheet No. 6A and First Revised Sheet No. 6B. The tariff rate changes for the Northern System and Eastern System are based on the Panhandle Eastern Pipe Line Company filings of their FERC Gas Tariffs, Fifty-Second Revised Sheet No. 5, Fifty-First Revised Sheet No. 7, Ninth Revised Sheet No. 9, Eleventh Revised Sheet No. 11 and Twenty-First Revised Sheet No. 19.

The seasonal revenue impact associated with the gas cost recovery portion of the rates is a decrease in the amount of \$1,482,668 or (40.92%) for the Southern System, a decrease in the amount of \$409,378 or (29.29%) for the Northern System and a decrease in the amount of \$170,079 or (19.31%) for the Eastern System as determined on Enclosure 4.

Missouri Public Service respectfully requests that these rates become effective with volumes taken on and after April 16, 1999.

Sincerely,

Janet A. Greene

Janet A. Greene
Rate Analyst

Enclosures
cc: Office of the Public Counsel (2)

9900773

STATE OF MISSOURI, PUBLIC SERVICE COMMISSION

P.S.C. MO. No.

5

16th

(Original)
(Revised)
(Original)
(Revised)

SHEET NO.

43

Cancelling P.S.C. MO. No.

5

15th

SHEET NO.

43

MISSOURI PUBLIC SERVICE
KANSAS CITY, MO 64138

FOR: Southern System

PURCHASED GAS ADJUSTMENT CLAUSE
(CONTINUED)Adjustment Statement (Southern System)

As provided in this Purchased Gas Adjustment Clause, the following adjustment(s) will be made to the applicable rate schedules:

	Rate Schedule <u>GNG</u>	Rate Schedule <u>LVF</u>	Rate Schedule <u>LVI</u>
Regular PGA	\$.28270	\$.28270	\$.22455
Actual Cost Adjustment	\$ (.04165)	\$ (.04165)	\$ (.00777)
Refunds	\$ (.02777)	\$ (.02777)	\$ -0-
TOP Factor	\$ -0-	\$ -0-	\$ -0-
TC Factor	\$.00211	\$.00211	\$.00211
Total PGA Per Ccf	\$.21539	\$.21539	\$.21889

The TOP and TC Factors, as provided in Sheets 39 through 40, shall also apply to all Ccf delivered to transportation customers on Missouri Public Service's Southern System except as provided for on Sheet No. 20.

STATE OF MISSOURI, PUBLIC SERVICE COMMISSION

P.S.C. MO. No.

5

19th

(Original)
(Revised)
(Original)
(Revised)

SHEET NO.

44

Cancelling P.S.C. MO. No.

5

18th

SHEET NO.

44

MISSOURI PUBLIC SERVICE
KANSAS CITY, MO 64138

FOR: Northern System

PURCHASED GAS ADJUSTMENT CLAUSE
(CONTINUED)Adjustment Statement (Northern System)

As provided in this Purchased Gas Adjustment Clause, the following adjustment(s) will be made to the applicable rate schedules:

	Rate Schedule <u>GNG</u>	Rate Schedule <u>LVF</u>	Rate Schedule <u>LVI</u>
Regular PGA	\$.31534	\$.31534	\$.23155
Actual Cost Adjustment	\$ (.05138)	\$ (.05138)	\$ -0-
Refunds	\$ (.00514)	\$ (.00514)	\$ -0-
TOP Factor	\$ -0-	\$ -0-	\$ -0-
TC Factor	\$ -0-	\$ -0-	\$ -0-
Total PGA Per Ccf	\$.25882	\$.25882	\$.23155

The TOP and TC Factors, as provided in Sheets 39 through 40, shall also apply to all Ccf delivered to transportation customers on Missouri Public Service's Northern System except as provided for on Sheet No. 20.

STATE OF MISSOURI, PUBLIC SERVICE COMMISSION

P.S.C. MO. No.

5

9th

(Original)
(Revised)
(Original)
(Revised)

SHEET NO.

44.1

Cancelling P.S.C. MO. No.

5

8th

SHEET NO.

44.1

MISSOURI PUBLIC SERVICE
KANSAS CITY, MO 64138

FOR: Eastern System

PURCHASED GAS ADJUSTMENT CLAUSE
(CONTINUED)Adjustment Statement (Eastern System)

As provided in this Purchased Gas Adjustment Clause, the following adjustment(s) will be made to the applicable rate schedules:

	Rate Schedule <u>GNG</u>	Rate Schedule <u>LVF</u>	Rate Schedule <u>LVI</u>
Regular PGA	\$.37786	\$.37786	\$.43034
Actual Cost Adjustment	\$.05975	\$.05975	\$ -0-
Refunds	\$ -0-	\$ -0-	\$ -0-
TOP Factor	\$ -0-	\$ -0-	\$ -0-
TC Factor	\$ -0-	\$ -0-	\$ -0-
Total PGA Per Ccf	\$.43761	\$.43761	\$.43034

The TOP and TC Factors, as provided in Sheets 39 through 40, shall also apply to all Ccf delivered to transportation customers on Missouri Public Service's Eastern System except as provided for on Sheet No. 20.

MISSOURI PUBLIC SERVICE
Southern System Annualized Gas Cost Calculation
To Reflect Current WNG & Spot Market Rates

Enclosure 1

FIRM	Annual Volume	Monthly Capacity Reserved	No. of Mth Reserved	Tariff Rate	Annual Cost
<u>Williams Natural Gas</u>					
TSS					
No-Notice Fee		38,118	12	\$0.0154	\$7,044
Reservation - FSS Deliverability		25,412	12	\$0.5162	\$157,412
Reservation - FTS-Production		13,134	12	\$5.6834	\$895,749
GSR Surcharge - Production		13,134	12	\$0.3816	\$60,143
Reservation - FTS-Market		38,118	12	\$2.8417	\$1,299,839
GSR Surcharge - Market		38,118	12	\$0.3816	\$174,550
GRI		38,118	12	\$0.1420	\$64,953
FTS					
Production - Reservation		10,567	12	\$5.6834	\$720,678
Production - Balancing		10,567	12	\$0.1630	\$20,669
GSR Surcharge - Production		10,567	12	\$0.3816	\$48,388
Market - Reservation		10,491	12	\$2.8417	\$357,747
Market - Balancing		10,491	12	\$0.1630	\$20,520
GSR Surcharge - Market		10,491	12	\$0.3816	\$48,040
Market - GRI		10,491	12	\$0.1420	\$17,877
Spot Market Purchases	3,878,037			\$1.7830	\$6,914,540
Total Annual Cost					\$10,808,149
Sales Volume at Burnertip	3,823,123				
Cost per MCF at Burnertip					\$2.8270

Highest WACOG (Summer Period)	Apr 96 - Oct 96	Apr 97 - Oct 97	Apr 98 - Oct 98	Average WACOG
	\$2.0058	\$2.4579	\$2.1617	\$2.2085
Highest Avg WACOG-Summer Period (Avg of summer seasons with the highest of 3 averages)				\$2.3332
				March 1999 Gas Commodity Costs
				\$1.6395

INTERRUPTIBLE

<u>Williams Natural Gas</u>			
ITS-P			<u>@150%</u>
Commodity	125,742		\$0.2574
			\$32,366
ITS-M			<u>@150%</u>
Commodity	124,912		\$0.1358
			\$16,957
Spot Market Price Per MCF	127,424		\$1.7830
			\$227,196
Total Annual Cost			\$276,519
Sales Volume at Burnertip	123,143		
Cost per MCF at Burnertip			\$2.2455

MISSOURI PUBLIC SERVICE - SOUTHERN SYSTEM
Gas Cost Inputs

MPS Line Loss 1.416%
Annual Burnertip Sales 3,946,266

WNG Rates

Firm Rates

TSS
No-Notice Fee \$0.0154
Reservation - FSS Deliverability \$0.5162
Reservation - FSS Capacity \$0.0294
Reservation - FTS-P \$5.6834
Reservation - FTS-M \$2.8417
GSR Surcharge Production \$0.3816
GSR Surcharge Market \$0.3816
GRI \$0.1420

FTS
Production - Reservation \$5.6834
Production - Balancing \$0.1630
Market - Reservation \$2.8417
Market - Balancing \$0.1630
GSR Surcharge Production \$0.3816
GSR Surcharge Market \$0.3816
Market - GRI \$0.1420

Production
Commodity - FTS-P \$0.0124
GRI Funding Unit - Commodity - Others \$0.0075
FERC Annual Charge Adjustment \$0.0022
Production Field Zone \$0.0221

Commodity - FTS-M \$0.0061
GRI Funding Unit - Commodity - Others \$0.0075
FERC Annual Charge Adjustment \$0.0022
Market Zone \$0.0158

Injection/Withdrawal - FSS \$0.0122

Interruptible Rates

ITS-P
Commodity \$0.1619
ITS-M
Commodity \$0.0808
GRI Funding Unit - Commodity - Others \$0.0075
FERC Annual Charge Adjustment \$0.0022
WNG Production Area Loss 1.32%
WNG Market Area Loss 0.66%
WNG Storage Loss 2.35%

Note: From FERC Gas Tariff: Substitute Fourth Revised Sheet No. 6 Effective 2/1/99, Substitute Seventh Revised Sheet No. 6A Effective 2/1/99, and First Revised Sheet No. 6B Effective 1/1/99.

Calculated Inputs

	<u>Firm</u>	<u>Storage</u>	Total <u>Firm</u>	<u>Interruptible</u>	Total <u>System</u>
Annual Throughput at Burnertip Per GR-93-172	2,796,691	1,026,432	3,823,123	123,143	3,946,266
Annual Throughput at Citygate	2,836,862	1,041,175	3,878,037	124,912	4,002,948
Annual Throughput at Production Area	2,837,569	1,066,231	3,903,800	125,742	4,029,542
Annual Throughput at Wellhead	2,875,526	1,080,494	3,956,020	127,424	4,083,444

Missouri Public Service
Division of UtiliCorp United Inc.
Southern System
Current Gas Cost Calculation

	Apr-99	May-99	Jun-99	Jul-99	Aug-99	Sep-99	Oct-99	Totals
SUMMARY OF COMMODITY COSTS								
Sales Requirements	277,300	120,756	52,958	101,831	59,921	95,961	196,598	905,325
WNG Market Area Loss	0.66%	0.66%	0.66%	0.66%	0.66%	0.66%	0.66%	
WNG Production Area Loss	1.32%	1.32%	1.32%	1.32%	1.32%	1.32%	1.32%	
Total Supply - Fuel Loss	282,876	123,184	54,023	103,879	61,126	97,891	200,551	
Storage Injection	173,016	178,787	173,001	105,159	97,276	55,096	56,260	838,595
Storage Injection Loss	2.35%	2.35%	2.35%	2.35%	2.35%	2.35%	2.35%	
Total Storage - Fuel Loss	177,180	183,090	177,164	107,690	99,617	56,421	57,614	
(Storage injection is noted on spreadsheet but not included in commodity cost calculation because MPS does not pay for storage until it is withdrawn in the winter months.)								
Purchase Requirements	282,876	123,184	54,023	103,879	61,126	97,891	200,551	923,530
Contracted Fixed Price Supply	0	0	0	0	0	0	0	0
Contracted Price	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0
(Contracted Fixed Price Supply only applies in the winter months.)								
Total Supply (Purchases Less Fixed)	282,876	123,184	54,023	103,879	61,126	97,891	200,551	923,530
Forecasted Price (NYMEX-WNG Basis)	\$ 1.658	\$ 1.691	\$ 1.724	\$ 1.754	\$ 1.781	\$ 1.811	\$ 1.860	
Total Cost	\$ 469,008	\$ 208,304	\$ 93,136	\$ 182,204	\$ 108,865	\$ 177,281	\$ 373,025	\$ 1,611,823
Storage Withdrawal	0	0	0	0	0	0	0	0
Storage WACOG	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Forecasted Gas Commodity Cost	469,008	208,304	93,136	182,204	108,865	177,281	373,025	1,611,823
Forecasted Sales Gas Quantity	282,876	123,184	54,023	103,879	61,126	97,891	200,551	923,530
Gas Cost (Commodity) Dth								\$1.7453
SUMMARY OF UPSTREAM COSTS								
Williams Natural Gas Pipeline - Firm								
FT Commodity (Production Area)	282,876	123,184	54,023	103,879	61,126	97,891	200,551	
FT Commodity (Market Area)	279,142	121,558	53,310	102,508	60,319	96,599	197,904	
Total Units	562,018	244,742	107,333	206,387	121,445	194,490	398,455	1,834,870
Cost/Dth - Production Area	\$0.0221	\$0.0221	\$0.0221	\$0.0221	\$0.0221	\$0.0221	\$0.0221	
Cost/Dth - Market Area	\$0.0158	\$0.0158	\$0.0158	\$0.0158	\$0.0158	\$0.0158	\$0.0158	
Total WNG Commodity Costs	\$10,662	\$4,643	\$2,036	\$3,915	\$2,304	\$3,690	\$7,559	\$34,809
Forecasted Northern Upstream Costs	10,662	4,643	2,036	3,915	2,304	3,690	7,559	34,809
Forecasted Firm Sales Quantity	282,876	123,184	54,023	103,879	61,126	97,891	200,551	923,530
Upstream Cost/Dth								\$0.0377

Wellhead Cost of Gas \$ 1.7830

Missouri Public Service
Division of UtiliCorp United Inc.
Southern System
Gas Commodity Cost Calculation

Inside FERC Posted Price March 99	\$ 1.57
WNG Market Area Loss	0.66%
WNG Production Area Loss	<u>1.32%</u>
WNG Index Adjusted for Fuel	\$ 1.6016
WNG Cost/Dth Field Zone	\$0.0221
WNG Cost/Dth - Market Zone	<u>\$0.0158</u>
	\$1.6395
Total Gas Commodity Costs	\$1.6395

MISSOURI PUBLIC SERVICE
**Northern System Annualized Gas Cost Calculation
To Reflect Current PEPL & Spot Market Rates**
Enclosure 2

	<u>Annual Volume</u>	<u>Monthly Capacity Reserved</u>	<u>No. Of Mth Reserved</u>	<u>Tariff/ Contracted Rate</u>	<u>Annual Cost</u>
FIRM					
<u>Panhandle Eastern Pipe Line</u>					
Contract 13372 & 13334					
<u>EFT Reservation Rates</u>					
Field Zone Reservation		12,000	12	\$4.5210	\$651,028
Market Zone Access		12,000	12	\$3.1542	\$454,206
Market Zone Mileage		12,000	12	\$1.7205	\$247,748
Settlement Surcharges		12,000	12	\$0.0000	\$0
Canadian Resolutions Surcharge		12,000	12	\$0.0000	\$0
GSR Surcharge		12,000	12	\$0.0000	\$0
Stranded Transportation Cost Surcharge		12,000	12	\$0.0000	\$0
Miscellaneous Stranded Costs Surcharge		12,000	12	\$0.0000	\$0
Contract 13373					
IOS Deliverability Charge		1,000	12	\$3.3500	\$40,200
IOS Capacity Charge	99,996			\$0.4028	\$40,278
Contract 13377					
WS Deliverability Charge		6,275	12	\$3.3500	\$252,255
WS Capacity Charge	627,504			\$0.4028	\$252,759
Spot Market Purchases	1,525,574			\$1.7653	\$2,693,096
Total Annual Cost (Excluding Contract 13379)					<u>\$4,631,570</u>
Sales Volume at Burnertip	1,468,777				\$3.1534
Contract 13379 - Winter Rates					
<u>EFT Reservation Rates</u>					
Market Zone Access		6,000	5	\$0.0000	\$0
Market Zone Mileage		6,000	5	\$0.0000	\$0
Settlement Surcharges		6,000	5	\$0.0000	\$0
GSR Surcharge		6,000	5	\$0.0000	\$0
Stranded Transportation Cost Surcharge		6,000	5	\$0.0000	\$0
Miscellaneous Stranded Costs Surcharge		6,000	5	\$0.0000	\$0
					<u>\$0</u>
Winter Cost per Mcf at Burnertip	1,086,896				\$0.0000
Cost per MCF at Burnertip					<u>\$3.1534</u>
 Highest WACOG (Summer Period)	Apr 96 - Oct 96	Apr 97 - Oct 97	Apr 98 - Oct 98	Average WACOG	
	\$1.9965	\$2.3468	\$1.9409	\$2.0947	
Highest Avg WACOG-Summer Period (Avg of summer seasons with the highest 3 averages)				\$2.2208	
March 1999 Gas Commodity Costs				\$1.6664	
 INTERRUPTIBLE					
<u>Panhandle Eastern Pipe Line</u>					
<u>IT Interruptible Rates</u>				@150%	
Field Zone				\$0.2792	\$0.2792
Market Zone Access				\$0.1553	\$0.1553
Market Zone Mileage				\$0.0999	\$0.0999
GRI Funding Unit				\$0.0113	\$0.0112
ACA Unit Charge				\$0.0033	\$0.0033
TOP Volumetric Surcharge				\$0.0000	\$0.0000
Settlement Surcharges				\$0.0000	\$0.0000
Canadian Resolution Surcharges				\$0.0000	\$0.0000
Stranded Transportation Cost Surcharge				\$0.0000	\$0.0000
Miscellaneous Stranded Costs Surcharge				\$0.0014	\$0.0013
Spot Market Price Per MCF	\$1.7653				\$1.7653
Total Annual Cost					<u>\$2.3155</u>
Sales Volume at Burnertip	0				
Cost per MCF at Burnertip					<u>\$2.3155</u>

MISSOURI PUBLIC SERVICE - NORTH SYSTEM

Gas Cost Inputs

MPS Line Loss 3.723%
Annual Burnertip Sales 1,468,777

<u>PEPL Rates</u>	Tariff Rate	Contract 13372 & 13334	Contract 13379
		Discount Rate	Discount Rate
<u>PEPL EFT Reservation Rates</u>			
Field Zone Reservation	\$4.7300	\$4.5210	
Market Zone Access	\$3.3000	\$3.1542	\$0.0000
Market Zone Mileage 201-300 Block	\$1.8000	\$1.7205	\$0.0000
GRI Funding Unit	\$0.2300		
Settlement Surcharges	\$0.0000		
Canadian Resolution Surcharges	\$0.0000		
GSR Surcharge	\$0.0000		
Stranded Transportation Cost Surcharge	\$0.0000		
Miscellaneous Stranded Costs Surcharge	\$0.0000		
<u>PEPL EFT Commodity Rates</u>			
Field Zone Commodity	\$0.0195		
Market Zone Access	\$0.0006		
Market Zone Mileage	\$0.0075		
GRI Funding Unit	\$0.0000		
ACA Unit Charge	\$0.0022		
TOP Volumetric Surcharge	\$0.0000		
Settlement Surcharges	\$0.0000		
Total Market Zone Commodity	\$0.0103		
<u>PEPL IT Interruptible Rates</u>			
Field Zone	\$0.1861		
Market Zone Access	\$0.1035		
Market Zone Mileage	\$0.0666		
GRI Funding Unit	\$0.0075		
ACA Unit Charge	\$0.0022		
TOP Volumetric Surcharge	\$0.0000		
Settlement Surcharges	\$0.0000		
Canadian Resolution Surcharges	\$0.0000		
Stranded Transportation Cost Surcharge	\$0.0000		
Miscellaneous Stranded Costs Surcharge	\$0.0009		
<u>PEPL In/Out Storage Rates</u>			
Deliverability Charge	\$3.3500		
Capacity Charge	\$0.4028		
Injection/Withdrawal Charge	\$0.0033		
<u>PEPL Winter Storage Rates</u>			
Deliverability Charge	\$3.3500		
Capacity Charge	\$0.4028		
Injection/Withdrawal Charge	\$0.0033		
PEPL Gathering Loss	0.86%		
PEPL Field Zone Loss	1.29%		
PEPL Market Zone Loss	1.35%		
PEPL Storage Injection Loss	1.43%		
PEPL Storage Withdrawal Loss	0.40%		

Seasonal Sales Volume @ Burnertip

Jan	288,860
Feb	265,604
Mar	194,613
Apr	117,502
May	64,871
Jun	44,063
Jul	34,272
Aug	33,047
Sep	36,719
Oct	51,407
Nov	118,726
Dec	219,093
	<u>1,468,777</u>

Note: From FERC Gas Tariff: PEPL Fifty-Second Revised Sheet No. 5 Effective 4/01/99 , Fifty-First Revised Sheet No. 7 Effective 4/01/99, Ninth Revised Sheet No. 9 Effective 11/01/98, Eleventh Revised Sheet No. 11 Effective 11/01/98 and Twenty-First Revised Sheet No. 19 Effective 1/01/99

<u>Calculated Inputs</u>	<u>Firm</u>		<u>Total</u>		<u>Interruptible</u>	<u>Total</u>
	<u>Firm</u>	<u>Storage</u>	<u>Firm</u>			
Annual Throughput at Burnertip Per GR-93-172	891,211	577,566	1,468,777	0		1,468,777
Annual Throughput at Citygate	925,674	599,900	1,525,574	0		1,525,574
Annual Throughput at Havenpool	938,342	610,552	1,548,894	0		1,548,894
Annual Throughput at Wellhead	950,604	627,504	1,578,108	0		1,578,108

Missouri Public Service
Division of UtilCorp United Inc.
Northern System
Current Gas Cost Calculation

	Apr-99	May-99	Jun-99	Jul-99	Aug-99	Sep-99	Oct-99	Totals
SUMMARY OF COMMODITY COSTS								
Sales Requirements	78,306	29,772	9,891	19,659	20,712	12,430	56,668	227,438
PEPL Market Zone Fuel Loss	1.35%	1.35%	1.35%	1.35%	1.35%	1.35%	1.35%	
PEPL Field Zone Fuel Loss	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	
Gathering Fuel Loss	0.86%	0.86%	0.86%	0.86%	0.86%	0.86%	0.86%	
Total Supply - Fuel Loss	81,113	30,839	10,245	20,364	21,454	12,875	58,699	
Storage Injection	40,000	40,000	50,000	45,000	45,000	45,000	40,000	305,000
Storage Injection Loss	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	1.43%	
Total Storage - Fuel Loss	40,580	40,580	50,725	45,653	45,653	45,653	40,580	
(Storage injection is noted on spreadsheet but not included in commodity cost calculation because MPS does not pay for storage until it is withdrawn in the winter months.)								
Purchase Requirements	81,113	30,839	10,245	20,364	21,454	12,875	58,699	235,589
Total Supply	81,113	30,839	10,245	20,364	21,454	12,875	58,699	235,589
Forecasted Price (NYMEX-PEPL Basis)	\$ 1.6505	\$ 1.6835	\$ 1.7165	\$ 1.7465	\$ 1.7735	\$ 1.8035	\$ 1.8525	
Total Cost	\$ 133,877	\$ 51,917	\$ 17,586	\$ 35,566	\$ 38,049	\$ 23,220	\$ 108,740	408,955
Storage Withdrawal (13373 & 13377)	0	0	0	0	0	0	0	0
Storage WACOG (13373 & 13377)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Forecasted Gas Commodity Cost	133,877	51,917	17,586	35,566	38,049	23,220	108,740	408,955
Forecasted Sales Gas Quantity	81,113	30,839	10,245	20,364	21,454	12,875	58,699	235,589
Gas Cost (Commodity) Dth								\$1.7359
SUMMARY OF UPSTREAM COSTS								
Panhandle Eastern Pipeline - Firm								
FT Commodity (Field Zone)	80,415	30,574	10,157	20,188	21,270	12,765	58,194	
FT Commodity (Market Zone)	79,378	30,179	10,026	19,928	20,995	12,600	57,443	
Total Units	159,793	60,753	20,183	40,116	42,265	25,365	115,637	464,112
Cost/Dth - Field Zone	\$0.0195	\$0.0195	\$0.0195	\$0.0195	\$0.0195	\$0.0195	\$0.0195	
Cost/Dth - Market Zone	\$0.0103	\$0.0103	\$0.0103	\$0.0103	\$0.0103	\$0.0103	\$0.0103	
Total Panhandle Commodity Costs	\$2,386	\$907	\$301	\$599	\$631	\$379	\$1,726	6,929
Forecasted Northern Upstream Costs	2,386	907	301	599	631	379	1,726	6,929
Forecasted Firm Sales Quantity	81,113	30,839	10,245	20,364	21,454	12,875	58,699	235,589
Upstream Cost/Dth								\$0.0294
Wellhead Cost of Gas								\$ 1.7653

Missouri Public Service
Division of UtiliCorp United Inc.
Northern System
Gas Commodity Cost Calculation

Inside FERC Posted Price March 99	\$	1.58
PEPL Market Zone Fuel Loss		1.35%
PEPL Field Zone Fuel Loss		1.29%
Gathering Fuel Loss		<u>0.86%</u>
PEPL Index Adjusted for Fuel	\$	1.6366
PEPL Cost/Dth Field Zone		\$0.0195
PEPL Cost/Dth - Market Zone		<u>\$0.0103</u>
		\$1.6664
Total Gas Commodity Costs		<div>\$1.6664</div>

MISSOURI PUBLIC SERVICE
**Eastern System Annualized Gas Cost Calculation
To Reflect Current PEPL & Spot Market Rates**
Enclosure 3

FIRM	Annual/ Seasonal Volume	Monthly Capacity Reserved	No. of Mths Reserved	Tariff Rate	Annual Cost
Panhandle Eastern Pipe Line					
Winter (Nov-Mar)					
FT Reservation (Field Zone)		5,700	5	\$4.7300	\$134,805
FT Reservation (Market Zone)		5,700	5	\$5.9300	\$169,005
					<u>\$303,810</u>
Winter Sales Volume at Burnertip	462,120				
Winter Cost per MCF at Burnertip					\$0.6574
Summer (Apr-Oct) Volumetric Rate					
100% LF of Max Rate (Fld-4 Blks)					\$0.3505
Summer Cost per MCF at Burnertip					\$0.3505
Missouri Pipeline Company					
Rolla					
FT Reservation		2,695	12	\$4.3181	\$139,647
Salem					
FT Reservation		2,500	12	\$0.5000	\$15,000
Owensville					
FT Reservation		1,500	12	\$0.5000	\$9,000
Missouri Gas Company					
Rolla					
FT Reservation		2,695	12	\$5.0000	\$161,700
Salem					
FT Reservation		2,500	12	\$13.0000	\$390,000
Owensville					
FT Reservation		1,500	12	\$8.0000	\$144,000
Total Eastern System MoPipe & MoGas Costs					<u>\$859,347</u>
Spot Market Purchases	628,129			\$2.0401	\$1,281,446
Total Eastern System Costs					<u>\$2,140,793</u>
Sales Volume at Burnertip	<u>624,486</u>				
Cost per MCF at Burnertip					\$3.4281
Summer PGA					
Total Cost per MCF at Burnertip					\$3.7786
Highest WACOG (Summer Period)		Apr 96 - Oct 96	Apr 97 - Oct 97	Apr 98 - Oct 98	Average WACOG
		\$1.9708	\$2.2315	\$2.1612	\$2.1212
Highest Avg WACOG-Summer Period (Avg of summer seasons with the highest of 3 averages)					\$2.1763
				March 1999 Gas Commodity Costs	\$1.9982
INTERRUPTIBLE					
Panhandle Eastern Pipe Line					
IT (Field Zone)	\$0.1861		@ 150%		\$0.2792
IT (Market Zone)	\$0.2029		@ 150%		\$0.3043
Missouri Pipeline Company					
Commodity	\$0.3036				\$0.3036
Missouri Gas Company					
Commodity	\$1.3762				\$1.3762
Spot Market Price Per MCF	\$2.0401				\$2.0401
Cost per MCF at Burnertip					\$4.3034

MISSOURI PUBLIC SERVICE - EASTERN SYSTEM

Gas Cost Inputs

MPS Line Loss	0.580%
MoGas/MoPipe Line Loss	0.43%

PEPL RATES

PEPL EFT Reservation Rates

Field Zone Reservation	\$4.73
Market Zone Access	\$3.30
Market Zone Mileage 301-400 Block	\$2.40
GRI Funding Unit	\$0.2300
Settlement Surcharges	\$0.0000
Canadian Resolution Surcharges	\$0.0000
GSR Surcharge	\$0.0000
Stranded Transportation Cost Surcharge	\$0.0000
Miscellaneous Stranded Costs Surcharge	\$0.0000

PEPL Interruptible Rates

Field Zone	\$0.1861
Market Zone Access	\$0.1035
Market Zone Mileage	\$0.0888
GRI Funding Unit	\$0.0075
ACA Unit Charge	\$0.0022
TOP Volumetric Surcharge	\$0.0000
Settlement Surcharges	\$0.0000
Canadian Resolution Surcharges	\$0.0000
Stranded Transportation Cost Surcharge	\$0.0000
Miscellaneous Stranded Costs Surcharge	\$0.0009

PEPL Gathering Loss	0.86%
PEPL Field Zone Loss	1.29%
PEPL Market Zone Loss	1.80%

PEPL EFT Commodity Rates

Market Zone Access	\$0.0006
Market Zone Mileage 301-400	\$0.0100
GRI Funding Unit	\$0.0075
ACA Unit Charge	\$0.0022
TOP	\$0.0000
Settlement Charges	\$0.0000

EFT Commodity Rates	\$0.0203
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Field Zone Commodity	\$0.0195
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Total EFT Commodity Rates	\$0.0398
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Note: From FERC Gas Tariff: PEPL Fifty-Second Revised Sheet No. 5 Effective 4/01/99 , Fifty-First Revised Sheet No. 7 Effective 4/01/99, and Twenty-First Revised Sheet No. 19 Effective 1/01/99.

Annual Throughput at Burnertip	624,486
Annual Throughput at Citygate	628,129
MOGAS & MPC	630,842
Annual Throughput at Wellhead	650,800

Seasonal Sales Volume @ Burnertip

Jan	122,816
Feb	112,928
Mar	82,744
Apr	49,959
May	27,581
Jun	18,735
Jul	14,571
Aug	14,051
Sep	15,612
Oct	21,857
Nov	50,479
Dec	93,153
TOTAL	624,486

Missouri Public Service
Division of UtiliCorp United Inc.
Eastern System
Current Gas Cost Calculation

	<u>Apr-99</u>	<u>May-99</u>	<u>Jun-99</u>	<u>Jul-99</u>	<u>Aug-99</u>	<u>Sep-99</u>	<u>Oct-99</u>	<u>Totals</u>
SUMMARY OF COMMODITY COSTS								
Sales Requirements	28,669	15,313	6,555	7,089	6,067	6,095	4,148	73,936
MoGas/MoPipe Fuel Loss	0.43%	0.43%	0.43%	0.43%	0.43%	0.43%	0.43%	
PEPL Market Zone Fuel Loss	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	
PEPL Field Zone Fuel Loss	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	
Gathering Fuel Loss	<u>0.86%</u>	<u>0.86%</u>	<u>0.86%</u>	<u>0.86%</u>	<u>0.86%</u>	<u>0.86%</u>	<u>0.86%</u>	
Total Supply - Fuel Loss	29,961	16,003	6,851	7,409	6,341	6,370	4,335	77,270
Total Supply	29,961	16,003	6,851	7,409	6,341	6,370	4,335	77,270
Forecasted Price (NYMEX-PEPL Basis)	\$ 1.6505	\$ 1.6835	\$ 1.7165	\$ 1.7465	\$ 1.7735	\$ 1.8035	\$ 1.8525	
Total Cost	\$ 49,451	\$ 26,941	\$ 11,760	\$ 12,940	\$ 11,246	\$ 11,488	\$ 8,031	\$ 131,857
<u>Forecasted Gas Commodity Cost</u>	\$ 49,451	\$ 26,941	\$ 11,760	\$ 12,940	\$ 11,246	\$ 11,488	\$ 8,031	\$ 131,857
<u>Forecasted Sales Gas Quantity</u>	29,961	16,003	6,851	7,409	6,341	6,370	4,335	77,270
<u>Gas Cost (Commodity) Dth</u>								\$1.7064
SUMMARY OF UPSTREAM COSTS								
Panhandle Eastern Pipeline - Firm								
FT Commodity (Field Zone)	29,704	15,866	6,792	7,345	6,286	6,315	4,298	
FT Commodity (Market Zone)	29,321	15,661	6,704	7,250	6,205	6,234	4,242	
Total Units	59,025	31,527	13,496	14,595	12,491	12,549	8,540	
Cost/Dth Field Zone	\$0.0195	\$0.0195	\$0.0195	\$0.0195	\$0.0195	\$0.0195	\$0.0195	
Cost/Dth - Market Zone	\$0.0203	\$0.0203	\$0.0203	\$0.0203	\$0.0203	\$0.0203	\$0.0203	
Total Panhandle Commodity Costs	\$1,174	\$627	\$269	\$290	\$249	\$250	\$170	\$3,029
Missouri Pipeline Company - Firm								
Rolla								
FT Commodity	20,150	10,762	4,607	4,982	4,264	4,283	2,916	
Salem								
FT Commodity	6,674	3,565	1,526	1,650	1,412	1,419	966	
Owensville								
FT Commodity	1,969	1,052	450	487	417	419	285	
Total Units	28,793	15,379	6,583	7,119	6,093	6,121	4,167	74,255
Cost/Dth - Rolla	\$0.1699	\$0.1699	\$0.1699	\$0.1699	\$0.1699	\$0.1699	\$0.1699	
Cost/Dth - Salem	\$0.0500	\$0.0500	\$0.0500	\$0.0500	\$0.0500	\$0.0500	\$0.0500	
Cost/Dth - Owensville	\$0.0500	\$0.0500	\$0.0500	\$0.0500	\$0.0500	\$0.0500	\$0.0500	
Total MoPipe Commodity Costs	\$3,856	\$2,059	\$882	\$953	\$816	\$820	\$558	\$9,944
Missouri Gas Company - Firm								
Rolla								
FT Commodity	20,063	10,716	4,587	4,961	4,246	4,265	2,903	
Salem								
FT Commodity	6,645	3,550	1,519	1,643	1,406	1,413	962	
Owensville								
FT Commodity	1,961	1,047	448	485	415	417	284	
Total Units	28,669	15,313	6,554	7,089	6,067	6,095	4,149	73,936
Cost/Dth - Rolla	\$0.2000	\$0.2000	\$0.2000	\$0.2000	\$0.2000	\$0.2000	\$0.2000	
Cost/Dth - Salem	\$0.1200	\$0.1200	\$0.1200	\$0.1200	\$0.1200	\$0.1200	\$0.1200	
Cost/Dth - Owensville	\$0.0800	\$0.0800	\$0.0800	\$0.0800	\$0.0800	\$0.0800	\$0.0800	
Total MoGas Commodity Costs	\$4,967	\$2,653	\$1,136	\$1,228	\$1,051	\$1,056	\$719	\$12,810
Total MoPipe & MoGas Costs	\$8,823	\$4,712	\$2,018	\$2,181	\$1,867	\$1,876	\$1,277	\$22,754
<u>Forecasted Eastern Upstream Costs</u>	\$9,997	\$5,339	\$2,287	\$2,471	\$2,116	\$2,126	\$1,447	\$25,783
<u>Forecasted Firm Sales Quantity</u>	29,961	16,003	6,851	7,409	6,341	6,370	4,335	77,270
<u>Upstream Cost/Dth</u>								\$0.3337

Wellhead Cost of Gas \$2.0401

Missouri Public Service
Division of Utility Group United Inc.
Eastern System
Gas Commodity Cost Calculation

Inside FERC Posted Price March 99	\$ 1.58
MoGas/MoPipe Fuel Loss	0.43%
PEPL Market Zone Fuel Loss	1.80%
PEPL Field Zone Fuel Loss	1.29%
Gathering Fuel Loss	<u>0.86%</u>

PEPL Index Adjusted for Fuel	\$ 1.6512
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PEPL Cost/Dth Field Zone	\$0.0195
PEPL Cost/Dth - Market Zone	<u>\$0.0203</u>
Total PEPL Commodity Cost	\$1.6910

PEPL Cost	\$1.6910
MoPipe Cost/Dth - Rolla	\$0.1699
MoGas Cost/Dth - Rolla	\$0.2000
Rolla	\$2.0609

PEPL Cost	\$1.6910
MoPipe Cost/Dth - Salem	\$0.0500
MoGas Cost/Dth - Salem	\$0.1200
Total Salem	\$1.8610

PEPL Cost	\$1.6910
MoPipe Cost/Dth - Owensville	\$0.0500
MoGas Cost/Dth - Owensville	\$0.0800
Total Owensville	\$1.8210

		Percent Split	
Rolla	\$2.0609	69.98%	\$ 1.4422
Salem	\$1.8610	23.18%	\$ 0.4314
Owensville	\$1.8210	6.84%	\$ 0.1246

\$ 1.9982

Total Gas Commodity Costs

\$ 1.9982

	APRIL	MAY	JUNE	JULY	AUGUST	SEPT	OCTOBER	
SOUTHERN SYSTEM (96):								
Purchase Volumes	85,860	88,722	62,346	36,184	90,547	9,730	87,701	461,090
Commodity Cost (Highest)	\$2.1500	\$2.0000	\$2.0300	\$2.1800	\$2.1400	\$1.6702	\$1.6800	
Total Commodity Costs	\$184,599	\$177,444	\$126,562	\$78,881	\$193,771	\$16,251	\$147,338	\$924,846
								Weighted Avg. Commodity Costs
								\$2.0058
SOUTHERN SYSTEM (97):								
Purchase Volumes	41,836	7,940	24,232	10,460	29,770	16,241	97,488	227,967
Commodity Cost (Highest)	\$1.8540	\$1.9300	\$2.1200	\$2.1047	\$2.1407	\$2.3900	\$2.9900	
Total Commodity Costs	\$77,564	\$15,324	\$51,372	\$22,015	\$63,729	\$38,816	\$291,489	\$560,309
								Weighted Avg. Commodity Costs
								\$2.4579
SOUTHERN SYSTEM (98):								
Purchase Volumes	83,568	120,756	1,715	73,992	53,160	4,103	21,624	358,918
Commodity Cost (Highest)	\$2.3375	\$2.1632	\$1.9600	\$2.2499	\$1.8482	\$2.0098	\$1.9872	
Total Commodity Costs	\$195,340	\$261,219	\$3,361	\$166,475	\$98,250	\$8,246	\$42,971	\$775,862
								Weighted Avg. Commodity Costs
								\$2.1617
								Average of 3 Periods
								\$2.2085
Highest Avg WACOG-Summer Period (avg of summer seasons with the highest of 3 averages)								\$2.3332
March 1999 Gas Commodity Cost								\$1.6395

	APRIL	MAY	JUNE	JULY	AUGUST	SEPT	OCTOBER	
NORTHERN SYSTEM (96):								
Purchase Volumes	75,028	54,250	20,000	72,695	77,810	37,960	62,840	400,583
Commodity Cost (Highest)	\$2.1550	\$2.0000	\$2.0500	\$2.1700	\$2.1200	\$1.5720	\$1.6900	
Total Commodity Costs	\$161,685	\$108,500	\$41,000	\$157,748	\$164,957	\$59,673	\$106,200	\$799,763
				Weighted Avg. Commodity Costs				\$1.9965
NORTHERN SYSTEM (97):								
Purchase Volumes	10,000	72,000	38,225	1,583	28,853	4,618	75,201	230,480
Commodity Cost (Highest)	\$1.8820	\$1.9500	\$2.1325	\$2.0100	\$2.0600	\$2.4200	\$3.0100	
Total Commodity Costs	\$18,820	\$140,400	\$81,515	\$3,182	\$59,437	\$11,176	\$226,355	\$540,885
				Weighted Avg. Commodity Costs				\$2.3468
NORTHERN SYSTEM (98):								
Purchase Volumes	4,902	29,772	9,891	2,426	20,712	12,430	56,668	136,801
Commodity Cost (Highest)	\$2.3800	\$2.1400	\$1.9700	\$2.3050	\$1.8350	\$1.5600	\$1.9000	
Total Commodity Costs	\$11,667	\$63,712	\$19,485	\$5,592	\$38,007	\$19,391	\$107,669	\$265,523
				Weighted Avg. Commodity Costs				\$1.9409
							Average of 3 Periods	\$2.0947
Highest Avg WACOG-Summer Period (avg of summer seasons with the highest of 3 averages)								\$2.2208
				March 1999 Gas Commodity Cost				\$1.6664

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**Missouri Public Service
Southern System
1999 Summer Season Revenue Impact from Summer PGA Filing**

Month	PGA Factor	Month	PGA Factor	PGA Change (4/99)	Revenue Impact (Summer Season)
Apr-98	3.6455	Apr-99	2.1539	(1.4916)	(456,206)
May-98	3.6455	May-99	2.1539	(1.4916)	(251,864)
Jun-98	3.6455	Jun-99	2.1539	(1.4916)	(171,077)
Jul-98	3.6455	Jul-99	2.1539	(1.4916)	(133,060)
Aug-98	3.6455	Aug-99	2.1539	(1.4916)	(128,308)
Sep-98	3.6455	Sep-99	2.1539	(1.4916)	(142,564)
Oct-98	3.6455	Oct-99	2.1539	(1.4916)	(199,590)

Estimated Summer Season Change in Revenue (1,482,668)

Percent Change Between PGA Factors -40.92%

Firm Sales Volume @ Burnertip

3,823,123

Month	Estimated Customer Usage Mcf/Mnth	Estimated % Mcf/Yr	Estimated Company Sales Mcf/Mnth
Jan	23.6	19.67%	751,881
Feb	21.7	18.08%	691,348
Mar	15.9	13.25%	506,564
Apr	9.6	8.00%	305,850
May	5.3	4.42%	168,855
Jun	3.6	3.00%	114,694
Jul	2.8	2.33%	89,206
Aug	2.7	2.25%	86,020
Sep	3	2.50%	95,578
Oct	4.2	3.50%	133,809
Nov	9.7	8.08%	309,036
Dec	17.9	14.92%	570,283
TOTAL	120	100%	3,823,123

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

**Missouri Public Service
Northern System
1999 Summer Season Revenue Impact from Summer PGA Filing**

Month	PGA Factor	Month	PGA Factor	PGA Change (4/99)	Revenue Impact (Summer Season)
Apr-98	3.6602	Apr-99	2.5882	(1.0720)	(125,962)
May-98	3.6602	May-99	2.5882	(1.0720)	(69,542)
Jun-98	3.6602	Jun-99	2.5882	(1.0720)	(47,236)
Jul-98	3.6602	Jul-99	2.5882	(1.0720)	(36,739)
Aug-98	3.6602	Aug-99	2.5882	(1.0720)	(35,427)
Sep-98	3.6602	Sep-99	2.5882	(1.0720)	(39,363)
Oct-98	3.6602	Oct-99	2.5882	(1.0720)	(55,109)

Estimated Summer Season Change in Revenue (409,378)

Percent Change Between PGA Factors -29.29%

Firm Sales Volume @ Burnertip

1,468,777

Month	Estimated Customer Usage Mcf/Mnth	Estimated % Mcf/Yr	Estimated Company Sales Mcf/Mnth
Jan	23.6	19.67%	288,859
Feb	21.7	18.08%	265,604
Mar	15.9	13.25%	194,613
Apr	9.6	8.00%	117,502
May	5.3	4.42%	64,871
Jun	3.6	3.00%	44,063
Jul	2.8	2.33%	34,271
Aug	2.7	2.25%	33,047
Sep	3	2.50%	36,719
Oct	4.2	3.50%	51,407
Nov	9.7	8.08%	118,726
Dec	17.9	14.92%	219,093
TOTAL	120	100%	1,468,777

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

**Missouri Public Service
Eastern System
1999 Summer Season Revenue Impact from Summer PGA Filing**

Month	PGA Factor	Month	PGA Factor	PGA Change (4/99)	Revenue Impact (Summer Season)
Apr-98	5.4236	Apr-99	4.3761	(1.0475)	(52,332)
May-98	5.4236	May-99	4.3761	(1.0475)	(28,892)
Jun-98	5.4236	Jun-99	4.3761	(1.0475)	(19,624)
Jul-98	5.4236	Jul-99	4.3761	(1.0475)	(15,263)
Aug-98	5.4236	Aug-99	4.3761	(1.0475)	(14,718)
Sep-98	5.4236	Sep-99	4.3761	(1.0475)	(16,354)
Oct-98	5.4236	Oct-99	4.3761	(1.0475)	(22,895)

Estimated Summer Season Change in Revenue (170,079)

Percent Change Between PGA Factors -19.31%

Firm Sales Volume @ Burnertip

624,486

Month	Estimated Customer Usage Mcf/Mnth	Estimated % Mcf/Yr	Estimated Company Sales Mcf/Mnth
Jan	23.6	19.67%	122,816
Feb	21.7	18.08%	112,928
Mar	15.9	13.25%	82,744
Apr	9.6	8.00%	49,959
May	5.3	4.42%	27,581
Jun	3.6	3.00%	18,735
Jul	2.8	2.33%	14,571
Aug	2.7	2.25%	14,051
Sep	3	2.50%	15,612
Oct	4.2	3.50%	21,857
Nov	9.7	8.08%	50,479
Dec	17.9	14.92%	93,152
TOTAL	120	100%	624,486

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