





Missouri Public Service Commission

March 20, 2003

Mr. Dale Hardy Roberts, Secretary, Chief Regulatory Law Judge Missouri Public Service Commission 200 Madison Street Jefferson City, MO 65101

Dear Mr. Roberts:

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

Enclosure 1 reflects the Purchased Gas Adjustment calculations for the Eastern System. The PGA has been developed using NYMEX pricing weighted for the months of April 2003 through October 2003, and the "Inside FERC's Gas Market Report" posted price for March 2003. The tariff rate changes Eastern System are based on the Panhandle Eastern Pipe Line Company filings of their FERC Gas Tariffs, Sixty-Eighth Revised Sheet No. 5, Seventy-First Revised Sheet No. 7, Thirteenth Revised Sheet No. 9, Fifteenth Revised Sheet No. 11 and Twenty-Seventh Revised Sheet No. 19.

Enclosure 2 reflects the Weighted Average Cost of Gas (WACOG) for the last three years, April through October.

Enclosure 3 reflects the estimated ACA through August 2003 for the Eastern System.

Enclosure 4 reflects the estimated Deferred Carrying Cost Balance through August 2003 for the Eastern System.

The seasonal revenue impact or comparison to the same period last year, for the gas cost recovery portion of the rates is an increase in the amount of \$8,634 or .96% for the Eastern System as determined on Enclosure 5.

Aquila Networks respectfully requests that the rates proposed in this unscheduled filing become effective with volumes taken on and after April 04, 2003.

Sincerely,

Amy Workler
Amy Winkler

Regulatory Analyst

Enclosures

cc: Office of the Public Counsel

STATE OF MISSOURI, PUBLIC SERVICE COMMISSION P.S.C. MO. No. 5 19th (Original) SHEET NO. 44.1 (Revised) Cancelling P.S.C. MO. No. _____5 SHEET NO. _____ 44.1 18th (Original) (Revised) Aquila Networks - MPS FOR: Eastern System KANSAS CITY, MO 64138 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	\$.92002	\$.92002	\$.82740
Actual Cost Adjustment	\$ (.00134)	\$ (.00134)	\$ -0-
Refunds	\$ -0-	\$ -0-	\$ -0-
TOP Factor	\$ -0-	\$ -0-	\$ -0-
TC Factor	\$ -0-	\$ -0-	\$ -0-
Total PGA Per Ccf	\$.91868	\$.91868	\$.82740

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.

DATE OF ISSUE: March 21, 2003

ISSUED BY: Steven M. Jurek, Regulatory Services

Enclosure 1

Page 1 of 4

Eastern System Annualized Gas Cost Calculation To Reflect Current PEPL & Spot Market Rates

FIRM Panhandle Eastern Pipe Line Winter (Nov-Mar)	Annual/ Seasonal <u>Volume</u>	Monthly Capacity <u>Reserved</u>	No. of Mths <u>Reserved</u>	Tariff <u>Rate</u>	Annual <u>Cost</u>
FT Reservation (Field Zone) FT Reservation (Market Zone)		5,200 5,200	5 5	\$4.7300 \$5.7500 _	\$122,980 \$149,500
Winter Sales Volume at Burnertip Winter Cost per MCF at Burnertip	273,300				\$272,480 \$0.9970
Summer (Apr-Oct) Volumetric Rate 100% LF of Max Rate (Fld-4 Blks)	105,766				\$0.3445
Summer Cost per MCF at Burnertip				[\$0.3445
Missouri Pipeline Company Rolla					
FT Reservation Salem		2,939	12	\$4.3181	\$152,291
FT Reservation Owensville		2,500	12	\$1.5000	\$45,000
FT Reservation Missouri Gas Company Rolla		1,900	12	\$4.3181	\$98,453
FT Reservation Salem		2,939	12	\$8.0000	\$282,144
FT Reservation Owensville		2,500	12	\$13.1700	\$395,100
FT Reservation Total Eastern System MoPipe & MoGas Costs		1,900	12	\$13.1766 _ =	\$300,426 \$1,273,414
Spot Market Purchases	380,336			\$5.4779	\$2,083,452
Total Eastern System Costs				-	\$3,356,866
Sales Volume at Burnertip Cost per MCF at Burnertip	379,066			[\$8.8556
Summer PGA				-	
Total Cost per Mcf at Burnertip Highest WACOG (Summer Period)	A00	O-100 Ama 04 O-104	A 02 Oak 02 A		\$9.2002
		Oct 00 Apr 01 - Oct 01 33.7064 \$3.5445 seasons with the highest March 2003 Gas Co	\$3.1180 of 3 averages)	\$3.4563 \$3.5814 \$9.5213	
INTERRUPTIBLE					
Panhandle Eastern Pipe Line IT (Field Zone)	\$0.1750		@ 150%		\$0.2625
IT (Market Zone) Missouri Pipeline Company	\$0.1870		@ 150%		\$0.2805
Commodity Missouri Gas Company Commodity	\$0.3898 \$1.8633				\$0.3898
Spot Market Price Per MCF	\$1.8633 \$5.4779				\$1.8633 \$5.4779
Cost per MCF at Burnertip				=	\$8.2740

Enclosure 1

MISSOURI PUBLIC SERVICE - EASTERN SYSTEM Gas Cost Inputs

Page 2 of 4

MPS Line Loss	0.334%		
MoGas/MoPipe Line Loss	0.43%		
PEPL RATES			
PEPL EFT Reservation Rates		PEPL EFT Commodity Rates	
Field Zone Reservation	\$4.73	Market Zone Access	\$0.0006
Market Zone Access	\$3.30	Market Zone Mileage 301-400	\$0.0100
Market Zone Mileage 301-400 Block	\$2.40	GRI Funding Unit	\$0.0040
GRI Funding Unit	\$0.0500	ACA Unit Charge	\$0.0021
Settlement Surcharges	\$0.0000	TOP	\$0.0000
Canadian Resolution Surcharges	\$0.0000	Settlement Charges	(\$0.0003)
GSR Surcharge	\$0.0000		,
Stranded Transportation Cost Surcharge	\$0.0000	EFT Commodity Rates	\$0.0164
Miscellaneous Stranded Costs Surcharge	\$0.0000	•	
PEPL Interruptible Rates		Field Zone Commodity	\$0.0195
Field Zone	\$0.1750	•	
Market Zone Access	\$0.0924	Total EFT Commodity Rates	\$0.0359
Market Zone Mileage	\$0.0888	•	
GRI Funding Unit	\$0.0040		
ACA Unit Charge	\$0.0021		
TOP Volumetric Surcharge	\$0.0000		
Settlement Surcharges	(\$0.0003)		
Canadian Resolution Surcharges	\$0.0000		
Stranded Transportation Cost Surcharge	\$0.0000		
Miscellaneous Stranded Costs Surcharge	\$0.0000		
PEPL Gathering Loss	0.70%		
PEPL Field Zone Loss	1.22%		
PEPL Market Zone Loss	1.23%		

Note: From FERC Gas Tariff: PEPL Sixty-Eighth Revised Sheet No. 5 Effective 01/01/03, Seventy-First Revised Sheet No. 7 Effective 01/01/03, and Twenty-Seventh Revised Sheet No. 19 Effective 10/01/01.

379,066

Annual Throughput at Burnertip Annual Throughput at Citygate MOGAS & MPC Annual Throughput at Wellhead	379,066 380,336 381,979 391,512
Seasonal Sales Volume @ Burnertip	
Jan	73,216
Feb	65,424
Mar	53,242
Apr	37,244
May	20,814
Jun	10,209
Jul	7,438
Aug	7,242
Sep	8,048
Oct	14,772
Nov	29,297
Dec	52,121

TOTAL

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\$5.4779

Division of Aquila Networks

Missouri Public Service

Ε	aste	ım Sy	stem	
Current	Gas	Cost	Calculation	

	Apr-03	<u>May-</u> 03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Totals
SUMMARY OF COMMODITY COSTS Sales Requirements	37,244	20,814	10,209	7,438	7,242	8,048	14,772	105,766
MoGas/MoPipe Fuel Loss	0.43%	0.43%	0.43%	0.43%	0.43%	0.43%	•	,
PEPL Market Zone Fuel Loss	1.23%	1.23%	1.23%		1.23%	1.23%	0.43% 1.23%	
PEPL Field Zone Fuel Loss	1.22%	1.22%	1.23%			1.23%	1.23%	
Gathering Fuel Loss	0.70%	0.70%	0.70%			0.70%		
Total Supply - Fuel Loss	38,608	21,576	10,583	7,710	7.507	8,343	15,313	109,640
Purchase Requirements	38,608	21,576	10,583	7,710	7,507	8,343	15,313	,
Total Supply	38,608	21,576	10,583	7.710	7,507	8,343	15,313	109,640
Forecasted Price (NYMEX-PEPL Basis)*	\$ 5.0210	\$ 4.9860	\$ 4.9460	\$ 4.9310	\$ 4.926	\$ 4.896	\$ 4.891	100,040
Total Cost	\$ 193,851	\$ 107,578	\$ 52,344	\$ 38,018	\$ 36,979	\$ 40,847		\$ 544,513
Contracted Fixed Price Supply	0	0	0	0	0	0	0	
Contracted Price	<u> </u>	<u> </u>	<u>\$ -</u>	<u>\$ -</u> \$ -	<u> </u>	<u>\$ -</u>	<u>\$</u>	
Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Forecasted Gas Commodity Cost	\$ 193,851	\$ 107,578	\$ 52,344	\$ 38,018	\$ 36,979	\$ 40,847	\$ 74,896	\$ 544,513
Forecasted Sales Gas Quantity	38,608	21,576	10,583	7,710	7,507	8,343	15,313	109,640
Gas Cost (Commodity) Dth								\$4.9664
SUMMARY OF UPSTREAM COSTS								
Panhandle Eastern Pipeline - Firm				_		_	_	
FT Commodity (Field Zone)	38,338	21,425	10,509	7,656	7,454	8,285	15,206	
FT Commodity (Market Zone)	<u>37,870</u>	<u>21,164</u>	<u>10,381</u>	<u>7,563</u>	<u>7,363</u>	8,184	<u>15,021</u>	
Total Units	76,208	42,589	20,890	15,219	14,817	16,469	30,227	
Cost/Dth Field Zone	\$0.0195	\$0.0195	\$0.0195	\$0.0195	\$0.0195	\$0.0195	\$0.0195	
Cost/Dth - Market Zone	\$0.0164 \$1,369	\$0.0164 \$765	<u>\$0.0164</u> \$375	\$0.0164	\$0.0164	\$0.0164	\$0.0164	#2 007
Total Panhandle Commodity Costs	\$1,505	4100	\$3/3	\$273	\$266	\$296	\$543	\$3,887
Missouri Pipeline Company - Firm Rolla								
FT Commodity	26,206	14,645	7,183	5,234	5,095	5,663	10,394	
Salem	25,255	,.	7,100	0,207	0,000	0,000	10,004	
FT Commodity	7,605	4,249	2,084	1,519	1,478	1,643	3,016	
Owensville	,	.,	_ ,	-1		-,	-,	
FT Commodity	3,594	2,008	985	<u>7</u> 17	698	<u>77</u> 6	1,426	
Total Units	37,405	20,902	10,252	7,470	7,271	8,082	14,836	106,218
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	\$0.1699	\$0.1699	\$0,1699	\$0.1699	\$0.1699	\$0.169 <u>9</u>	\$ 0.1699	
Total MoPipe Commodity Costs	\$5,443	\$3,042	\$1,492	\$1,087	\$1,058	\$1,176	\$2,159	\$15,457
Missouri Gas Company - Firm Rolla								
FT Commodity	26,093	14,582	7,152	5,211	5,073	5,639	10,349	
Salem FT Commodity	7,572	4,231	2,075	1,512	1,472	1,636	3,003	
Owensville	. ,	.,201	_,0,0	.,012	*,=**	.,000	5,400	
FT Commodity	<u>3,578</u>	<u>1,999</u>	980	<u>714</u>	<u>695</u>	<u>772</u>	<u>1,419</u>	
Total Units	37,243	20,812	10,207	7,437	7,240	8,047	14,771	105,760
Cost/Dth - Rolla	\$0.4000	\$0.4000	\$0.4000		\$0.4000	\$0.4000	\$0.4000	•
Cost/Dth - Salem	\$0.5200	\$0.5200	\$0.5200		\$0,5200	\$0.5200	\$0.5200	
Cost/Dth - Owensville	\$0.9433	\$0.9433	\$0.9433	<u>\$0.9433</u>	\$0.9433	\$0.943 <u>3</u>	\$0.9433	
Total MoGas Commodity Costs	\$17,750	\$9,919	\$4,865	\$3,545	\$3,451	\$3,835	\$7,040	\$50,405
Total MoPipe & MoGas Costs	\$23,193	\$12,961	\$6,357	\$4,632	\$4,509	\$5,011	\$9,199	\$65,862
Forecasted Eastern Upstream Costs	\$24,562	\$ 13,726	\$6,732	\$4,905	\$4,775	\$5,307	\$9,742	\$69,749
Forecasted Firm Sales Quantity	38,608	21,576	10,583	7,710	7,507	8,343	15,313	109,640
Upstream Cost/Dth								\$0.6362
Put/Call 99/00 & 00/01 Settlement Adj.								(13,670) (\$0.1247)
								, ,

Missouri Public Service

Division of UtiliCorp United Inc.

Eastern System Gas Commodity Cost Calculation

Enclosure 1

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INSIDE FERC MAR 03 MoGas/MoPipe Fuel Loss PEPL Market Zone Fuel Loss PEPL Field Zone Fuel Loss Gathering Fuel Loss	\$ 8.55 0.43% 1.23% 1.22% <u>0.70%</u>	
PEPL Index Adjusted for Fuel	\$ 8.8633	
PEPL Cost/Dth Field Zone PEPL Cost/Dth - Market Zone Total PEPL Commodity Cost	\$0.0195 \$0.0164 \$8.8992	
PEPL Cost MoPipe Cost/Dth - Rolla MoGas Cost/Dth - Rolla Rolla	\$8.8992 \$0.1699 <u>\$0.4000</u> \$9.4691	
PEPL Cost MoPipe Cost/Dth - Salem MoGas Cost/Dth - Salem Total Salem	\$8.8992 \$0.0500 <u>\$0.5200</u> \$9.4692	
PEPL Cost MoPipe Cost/Dth - Owensville MoGas Cost/Dth - Owensville Total Owensville	\$8.8992 \$0.1699 \$0.9433 \$10.0124	
		Per

	Per	cent Split	
Rolla	\$9.4691	70.06% \$	6.6341
Salem	\$9.4692	20.33% \$	1.9251
Owensville	\$10.0124	9.61% \$	0.9622
		\$	9.5213
Total Gas Commodity Costs		\$	9.5213

	APRIL	MAY	JUNE	JULY	AUGUST	SEPT	OCTOBER		
SOUTHERN SYSTEM (00):	470.040	444 700							
Purchase Volumes	176,842	101,708	82,348	71,958	70,172	25,548	•	585,550	
Commodity Cost (Highest) Total Commodity Costs	\$2.7900	\$2.9567	\$4.1302	\$4.2167	\$3.7400	\$4.5500	\$5.2400		
rotal Commodity Costs	\$493,389	\$300,720	\$340,114	\$303,425	\$262,443	\$116,243	\$298,544	\$2,114,878	
SOUTHERN SYSTEM (01):				Weighted Avg	. Commodity	Costs			\$3.6118
Purchase Volumes	172,537	30,963	13,102	12 565	EE 504	00.040	4.750	270.040	
Commodity Cost (Highest)	\$5.2396	\$4.5996	\$3.7867	13,565	55,581	88,348	4,752	378,848	
Total Commodity Costs	\$904,025	\$142,417	\$49,613	\$3.0147 \$40.894	\$2.8691 \$159.467	\$2.1988	\$4.9300	04 E44 400	
Total Commodity Costs	4007,020	\$192,911	-	پهوريون Weighted Avg		\$194,260 Costs	\$23,427	\$1,514,103	en anno
SOUTHERN SYSTEM (02):				vveignied Avg	. Commodity	Cosis			\$3.9966
Purchase Volumes	182,591	117,856	110,155	65,333	66,273	65,010	115,646	700 064	
Commodity Cost (Highest)	\$3.2056	\$3.0367	\$2.8754	\$2.7316	\$2.6173	\$2.6298	\$4.0948	722,864	
Total Commodity Costs	\$585,314	\$357,893	\$316,740	\$178,464	\$173,456	\$170,963		¢2 256 277	
Total Commissing Cools	Ψ300,014	Ψ057,100 3		Weighted Avg			φ 4 13,541	\$2,256,377	\$3.1214
					, commodity	000(0			φυ. 12 I 4
								of 3 Periods	\$3.5766
	Highes	t Avg WACOG	i-Summer P	eriod (avg of					\$3.3490
					,	ebruary 20	03 Gas Comr	nodity Cost	\$5.8204
	APRIL	MAY	JUNE	JULY	AUGUST	SEPT	OCTOBER		
NORTHERN SYSTEM (00):	•	•					, , , , , , , , , , , , , , , , , , ,		
Purchase Volumes	32,684	29,715	24,570	23,035	23,026	21,025	45,247	199,302	
Commodity Cost (Highest)	\$2.7925	\$2.9400	\$4.2075	\$4.2000	\$3.7000	\$4,4900	\$5.1900	133,002	
Total Commodity Costs	\$91,270	\$87,362	\$103,378	\$96,747	\$85,196	\$94,402	\$234,832	\$793,187	
•	,	, . ,		Weighted Avg			42 01,002	Ψ130,101	\$3.9798
NORTHERN SYSTEM (01):						- -			40.0100
Purchase Volumes	42,901	29,258	3,175	5,611	449	21,879	21,675	124,948	
Commodity Cost (Highest)	\$5.3075	\$4.8100	\$4.6800	\$4.6800	\$4.6800	\$4.6800	\$4.6800	,	
Total Commodity Costs	\$227,697	\$140,731	\$14,859	\$26,259	\$2,101	\$102,394	\$101,439	\$615,480	
				Weighted Avg	. Commodity	Costs			\$4.9259
NORTHERN SYSTEM (02):					·				
Purchase Volumes	1,720	39,115	26,246	28,661	24,271	23,075	65,334	208,422	
Commodity Cost (Highest)	\$3.2750	\$3.1400	\$2.9500	\$2.9475	\$2.6550	\$2.9250	\$3.3000		
Total Commodity Costs	\$5,633	\$122,821	\$77,426	\$84,478	\$64,440	\$67,494	\$215,602	\$637,894	
				Weighted Avg	, Commodity (Costs			\$3.0606
							Average o	of 3 Periods	\$3.9888
	Highes	t Avg WACOG	-Summer P	eriod (avg of	summer seas	sons with th	ne highest of	3 averages)	\$3.9843
		1718917197911740W41979191919		-	F	ebruary 20	03 Gas Comr	nodity Cost	\$5.7666
	APRIL	MAY	JUNE	JULY	AUGUST	SEPT	AATABEB		The control of the co
EASTERN SYSTEM (00):						SEL 1	OCTOBER		
Purchase Volumes	22,745	11,885	0	5,330	3,901	5,510	15,500	64,871	
Commodity Cost (Highest)	\$2.7900	\$2,9400	\$0.0000	\$4.2000	\$3.7075	\$4.4900	\$5.1900		
Total Commodity Costs	\$63,459	\$34,942	\$0	\$22,386	\$14,463	\$24,740	\$80,445	\$240,435	
Engles programme and the contract of the contr	uran gandara baran ga	danar i middid		Weighted Avg					\$3.7064
EASTERN SYSTEM (01):	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -			7 (4) 74 (7)		11111111111111111111111111111111111111	\$ 1000 to \$200 ft.	W. () 1 () () () () () () () () (pear transfer to the con-
Purchase Volumes	24,750	8,587	12,240	8,586	6,355	6,018	21,375	87,911	erry taket erry balance in
Commodity Cost (Highest)	\$5,3075	\$4,8100	\$3,6150	\$3.0200	\$3.0425	\$2,2100	\$1.6900	9.19.	**************************************
Total Commodity Costs	\$131,361	\$41,303	\$44,248	\$25,930	\$19,335	\$13,300	\$36,124	\$311,601	Guandingualiana
	tre man destates destates and security			Weighted Avg	Market and a second control of the second co		Approved the second second	A CONTRACTOR OF THE CONTRACTOR	\$3.5445
EASTERN SYSTEM (02):		Andro Gunurica			de equipulation de la constantion de la constant		iomeran erritti	granding. Era	
Purchase Volumes	15,100	14,650	7,310	6,630	6,200	6,844	21,400	78,134	
Commodity Cost (Highest)	\$3.2725	\$3.1400	\$2.9500	\$2.9475	\$2.6550	\$2.9250	\$3.3000		
Total Commodity Costs	\$49,415	\$46,001	\$21,565	\$19,542	\$16,461	\$20,019		\$243,623	
				Weighted Avg	. Commodity				\$3,1180
							Averses	vi 3 Beriode	
	Highee	t Avg WACOG	-Summar D	eriod (ava.cf	gummerees	sone with th	ne highest ~	of 3 Periods	\$3.4563
erinden, auch de och ersystätiskaden behändlich de och en samt. Reichte in Strambergering in der vertreit i der en kantanstrikeringen auch				- AVM (ATG V)	Juniora and		19 iligilest of 03 Gas Comr		\$3.2872
to anti-tion and the street of				popura popuration		;;; indivit: 40	.v. cas conili	ivery Cost	\$9,5213

Missourl Public Service Eastern System

2002-2003 ACA Year PGA Estimate

(Based on Monthly Actuals and Estimates)

	<u>Sep</u>	Oct	Nov	Dec	<u>Jan</u>	<u>Feb</u>	Mar	Apr	May	<u>Jun</u>	<u>Jul</u>	Aug	
Commodity	\$3.8506	\$4.5986	\$5.7762	\$5.3398	\$ 5.4825	\$4.9342	\$ 5.5526	\$5.7058	\$6.2339	\$7.5569	\$8.5303	\$8.4217	
Fixed Costs	\$16.3509	\$4.6416	\$2.4233	\$1.7666	\$1.2659	\$1.9898	\$2.7987	\$3.7894	\$6.7806	\$13.8245	\$18.9755	\$19.4884	
Estimated Sales Volume	7,686	8,634	27,530	43,806	68,075	73,917	52,552	38,813	21,691	10,639	7,751	7,547	368,642
ACA Factor in Effect PGA Factor in Effect PGA/ACA Factor - Required	\$2.8861 \$10.1742 \$20.2015	\$2.8862 \$11.8964 \$9.2402	\$2.5183 \$7.4040 \$8.1994	\$0.0611 \$8.7694 \$7.1064	\$0.0218 \$8.8050 \$6.7483	(\$0.0133) \$8.8234 \$6.9240	(\$0.0134) \$8.8234 \$8.3513	(\$0.0134) \$9.1868 \$9.4952	(\$0.0134) \$9.1868 \$13.0146	(\$0.0134) \$9.1868 \$21.3814	(\$0.0134) \$9.1868 \$27.5057	(\$0.0134) \$9.1868 \$27.9101	
Over/Under Recovery	(\$7,1412)	\$5.5424	\$1.7229	\$1.7241	\$2.0784	\$1.8861	\$0.4587	(\$0.3218)	(\$3,8412)	(\$12.2080)	(\$18.3323)	(\$18.7367)	
Gas Supply Purchased (in Dth)	<u>Sep</u> 6,317	<u>Oct</u> 22,253	<u>Nov</u> 43,791	<u>Dec</u> 60,070	<u>Jan</u> 83.831	<u>Feb</u> 53,331	<u>Mar</u> 37,916	<u>Apr</u> 28.004	<u>May</u> 15,650	<u>Jun</u> 7,676	<u>Jul</u> 5,592	Aug 5,445	<u>Total</u> 369.877
Sales Volumes (in Mcf)	7,686	8,634	27,530	43,806	68,075	73,917	52,552	38,813	21,691	10,639	7,751	7,547	368,642
Cost of Gas Purchased and Produced	127,613	205,621	359,061	426,882	565,721	369,265	316,652	265,900	203,680	164,125	153,822	151,975	3,310,318
ACA Factor in Effect	22,184	24,919	69,329	2,677	1,483	(985)	(704)	(520)	(291)	(143)	(104)	(101)	117,745
PGA Factor in Effect	78,202	102,711	203,835	384,151	599,400	653,187	463,687	356,567	199,271	97,738	71,207	69,333	3,279,289
PGA Factor - Required	127,613	205,621	359,061	426,882	565,721	369,265	316,652	265,900	203,680	164,125	153,822	151,975	3,310,318
Over/(Under) Recovery	(27,227)	(77,991)	(85,897)	(40,054)	35,163	282,937	146,331	90,147	(4,699)	(66,529)	(82,719)	(82,744)	86,716
Prior ACA Yr Over/(Under) Recovery Balance	8,917					•	•						
. Monthly ACA Over/(Under) Recovery Monthly PGA Over/(Under) Recovery	22,184 (49,411)	24,919 (102,910)	69,329 (155,227)	2,677 (42,731)	1,483 33,679	(985) 283,922	(704) 147.035	(520) 90,667	(291) (4,409)	(143) (66,386)	(104) (82,615)	(101) (82,643)	117,745 (31,029)
Total Monthly PGA/ACA Over/(Under) Recovery	(27,227)	(77,991)	(85,897)	(40,054)	35,163	282,937	146,331	90,147	(4,699)	(66,529)	(82,719)	(82,744)	86,716
2002-2003 PGA/ACA Yr to Date Over/(Under) Recovery	(27,227)	(105,219)	(191,116)	(231,170)	(196,007)	86,929	233,260	323,407	318,708	252,179	169,460	86,716	
Inception to Date PGA/ACA Over/(Under) Recovery	(18,311)	(96,302)	(182,199)	(222,253)	(187,090)	95,846	242,177	332,324	327,624	261,096	178,376	95,633	
Note: Shaded areas indicate estimate.											Firm Mcfs	379,066	

Note: Prior months may change from previous spreadsheets due to prior period adjustments entered in appropriate month on this schedule.

Forecasted ACA 11/02 (0.2523)

Missouri Public Service Eastern System Estimated Deferred Carrying Cost Balance (DCCB) Calculation 2002-2003 ACA Year

Annual Gas Cost Level

Aminal Gas Cost Fevel													
Gas Cost from Nov 02 ACA calculation	2,389,693												
Gas Cost from Nov 01 ACA calculation	2,565,015												
Gas Cost from Nov 00 ACA calculation	2,169,779												
Average of 3 most recent gas cost calculations	2,374,829												
	10%												
10% of average annual gas cost threshold	237,483												
	Sep	Oct	Nov	Dec	<u>Jan</u>	<u>Feb</u>	Mar	<u>Apr</u>	May	Jun	<u>Jul</u>	Aug	Total
Sales Volumes (in Mcf)	7,686	8,634	27,530	43,806	68,075	73,917	52,552	38,813	21,691	10,639	7,751	7,547	368,642
Cost of Gas Purchased and Produced	127,613	205,621	359,061	426,882	565,721	369,265	316,652	265,900	203,680	164,125	153,822	151,975	3,310,318
PGA - Estimated Annualized Unit Cost of Gas	\$10.1742	\$11.8964	\$7.4040	\$8.7694	\$8.8050	\$8.8234	\$8.8234	\$9,1868	\$9.1868	\$9.1868	\$9.1868	\$9.1868	
Actual Annualized Unit Cost of Gas	<u>16,6026</u>	23.8159	13.0425	9.7448	8.3102	4.9957	6.0255	6.8508	9.3900	15.4267	19.8455		
Difference	-6.4285	-11.9195	-5.6384	-0.9755	0.4947	3.8277	2.7979	2.3360	-0.2032	-6.2399	-10.6587	-10.9504	
Actual Sales Volumes	7,686	8,634	27,530	43,806	68,075	73,917	52,552	38,813	21,691	10,639	7,751	7,547	
DCCB Monthly Over/(Under) Recovery	(49,411)	(102,910)	(155,227)	(42,731)	33,679	282,936	147,035	90,667	(4,409)	(66,386)	(82,615)	(82,643)	
2002-03 DCCB Yr to Date Over/(Under) Recovery	(49,411)	(152,322)	(307,548)	(350,279)	(316,600)	(33,664)	113,371	204,038	199,629	133,243	50,628	(32,015)	
10% of average annual gas cost threshold	237,483	237,483	237,483	237,483	237,483	237,483	237,483	237,483	237,483	237,483	237,483	237,483	
Absolute Value Royry Bal that exceeds threshold	-		70.065	112.796	79.117	_			-	-		_	
Over/(Und) Rovry Bal that exceeds 10% threshold	-	-	(70,065)	(112,796)	(79,117)	-	-	-	-	-	-	-	
Interest at Prime Rate - Wall Street Journal - 1%	3.75%	3.75%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	
Carrying Costs Refunded/(Collected)	-	-	(190)	(305)	(214)	-	•	*	•	• .	-	-	(710)
DCCB Percent of Avg Annual Gas Costs	-2.08%	-6.41%	-12.95%	-14.75%	-13.33%	-1.42%	4.77%	8.59%	8.41%	5.61%	2.13%	-1.35%	
	Gas Cost from Nov 02 ACA calculation Gas Cost from Nov 01 ACA calculation Gas Cost from Nov 01 ACA calculation Average of 3 most recent gas cost calculations 10% of average annual gas cost threshold Sales Volumes (in Mcf) Cost of Gas Purchased and Produced PGA - Estimated Annualized Unit Cost of Gas Actual Annualized Unit Cost of Gas Difference Actual Sales Volumes DCCB Monthly Over/(Under) Recovery 2002-03 DCCB Yr to Date Over/(Under) Recovery 10% of average annual gas cost threshold Absolute Value Rcvry Bal that exceeds threshold Over/(Und) Rcvry Bal that exceeds 10% threshold Interest at Prime Rate - Wall Street Journal - 1% Carrying Costs Refunded/(Collected)	Gas Cost from Nov 02 ACA calculation 2,389,693 Gas Cost from Nov 01 ACA calculation 2,565,015 Gas Cost from Nov 00 ACA calculation 2,169,779 Average of 3 most recent gas cost calculations 10% 10% of average annual gas cost threshold 237,483 Sep Sales Volumes (in Mcf) 7,686 Cost of Gas Purchased and Produced 127,613 PGA - Estimated Annualized Unit Cost of Gas 16,6026 Difference -6,4285 Actual Annualized Unit Cost of Gas 16,6026 Actual Sales Volumes 7,686 DCCB Monthly Over/(Under) Recovery (49,411) 2002-03 DCCB Yr to Date Over/(Under) Recovery (49,411) 10% of average annual gas cost threshold 237,483 Absolute Value Rovry Bal that exceeds threshold Over/(Und) Rovry Bal that exceeds 10% threshold -1 Interest at Prime Rate - Wall Street Journal - 1% 3.75% Carrying Costs Refunded/(Collected) -	Gas Cost from Nov 02 ACA calculation 2,389,693 Gas Cost from Nov 01 ACA calculation 2,565,015 Gas Cost from Nov 00 ACA calculation 2,169,779 Average of 3 most recent gas cost calculations 10% 10% of average annual gas cost threshold 237,483 Sep Oct Sales Volumes (in Mcf) 7,686 8,634 Cost of Gas Purchased and Produced 127,613 205,621 PGA - Estimated Annualized Unit Cost of Gas \$10,1742 \$11.8964 Actual Annualized Unit Cost of Gas 16,6026 23,8159 Difference -6,4285 -11,9195 Actual Sales Volumes 7,686 8,634 DCCB Monthly Over/(Under) Recovery (49,411) (102,910) 2002-03 DCCB Yr to Date Over/(Under) Recovery (49,411) (152,322) 10% of average annual gas cost threshold - - Over/(Und) Recvry Bal that exceeds threshold - - Over/(Und) Recvry Bal that exceeds 10% threshold - - Interest at Prime Rate - Wall Street Journal - 1% 3.75% Carrying Costs Refunded/(Collected) <t< th=""><th> Gas Cost from Nov 02 ACA calculation 2,389,693 2,565,015 2,169,779 Average of 3 most recent gas cost calculations 2,374,829 10% of average annual gas cost threshold 237,483 27,530 Cost of Gas Purchased and Produced 127,613 205,621 359,061 236,428 27,530 205,621 359,061 237,483 27,530 205,621 359,061 237,483 2</th><th> Gas Cost from Nov 02 ACA calculation 2,389,693 2,565,015 Gas Cost from Nov 01 ACA calculation 2,565,015 2,169,779 Average of 3 most recent gas cost calculations 2,374,829 10% 10% of average annual gas cost threshold 237,483 237,483 27,530 43,806 </th><th> Case Cost from Nov 02 ACA calculation 2,389,693 2,565,015 2,169,779 2,174,829 10% 237,4829 10% 237,483 237,483 246,882 565,721 205,621 359,061 426,882 565,721 205,621 205</th><th> Case Cost from Nov 02 ACA calculation 2,389,693 2,565,015 2,565,015 2,565,015 2,565,015 2,565,015 2,565,015 2,374,829 10% of average annual gas cost threshold 237,483 237,4</th><th> Cas Cost from Nov 02 ACA calculation 2,389,693 2,565,015 Cas Cost from Nov 01 ACA calculation 2,365,015 Cas Cost from Nov 00 ACA calculation 2,374,829 10% Cas Cost from Nov 00 ACA calculations 2,374,829 10% Cas Cost from Nov 00 ACA calculations 2,374,83 10% Cas Cost from Nov 00 ACA calculations 2,374,83 10% Cas Cost from Nov 00 ACA calculations 2,374,83 10% Cas Cost Cost Cost Cost Cost Cost Cost Cos</th><th> Case Cost from Nov 02 ACA calculation 2,389,693 2,565,015 Gas Cost from Nov 01 ACA calculation 2,169,779 Average of 3 most recent gas cost calculations 2,374,829 10% of average annual gas cost threshold 237,4829 10% of average annual gas cost threshold 237,483 2</th><th> Case Cost 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Cas Cost from Nov 00 ACA calculations 2,374,829 10% Cas Cost from Nov 00 ACA calculations 2,374,83 10% Cas Cost from Nov 00 ACA calculations 2,374,83 10% Cas Cost from Nov 00 ACA calculations 2,374,83 10% Cas Cost Cost Cost Cost Cost Cost Cost Cos	Case Cost from Nov 02 ACA calculation 2,389,693 2,565,015 Gas Cost from Nov 01 ACA calculation 2,169,779 Average of 3 most recent gas cost calculations 2,374,829 10% of average annual gas cost threshold 237,4829 10% of average annual gas cost threshold 237,483 2	Case Cost from Nov 02 ACA calculation 2,389,693 2,965,015 2,965,015 2,965,015 2,965,015 2,965,015 2,965,015 2,374,829	Case Cost from Nov 02 ACA calculation 2,385,631 2,565,175 2,734,829 2,374,829 2,374,829 10% of average annual gas cost threshold 237,483 237,483 237,483 237,483 246,882 2	Case Cost from Nov O2 ACA calculation 2,2565.015 2,768.2779 2,376.825 10% 10% of average annual gas cost calculations 2,376.825 10% 10% of average annual gas cost threshold 237,483 237,483 237,483 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Note: The DCCB will become 0 at the beginning of each new ACA period (Sep).

Note: Shaded Area indicates estimate.

8,634

Aquila Networks Eastern System 2002-2003 Summer Season Revenue Impact

Original Calculation Filed

	PGA	ł	PGA	PGA Change	Revenue Impact
Month	Factor	Month	Factor	(03/02)	(Summer Season)
Apr-02	9.0992	Apr-03	9.1868	0.0876	2,656
May-02	9.0992	May-03	9.1868	0.0876	1,467
Jun-02	9.0992	Jun-03	9.1868	0.0876	996
Jul-02	9.0992	Jul-03	9.1868	0.0876	775
Aug-02	9.0992	Aug-03	9.1868	0.0876	747
Sep-02	9.0992	Sep-03	9.1868	0.0876	830
Oct-02	9.0992	Oct-03	9.1868	0.0876	1,162

Estimated Summer Season Change in Revenue

Percent Change Between PGA Factors 0.96%

Firm Sales Volume @ Burnertip

379,066

			·
	Estimated		Estimated
	Customer Usage	Estimated %	Company Sales
Month	Mcf/Mnth	Mcf/Yr	Mcf/Mnth
Jan	23.6	19.67%	74,550
Feb	21.7	18.08%	68,548
Mar	15.9	13.25%	50,226
Apr	9.6	8.00%	30,325
May	5.3	4.42%	16,742
Jun	3.6	3.00%	11,372
Jul	2.8	2.33%	8,845
Aug	2.7	2.25%	8,529
Sep	3	2.50%	9,477
Oct	4.2	3.50%	13,267
Nov	9.7	8.08%	30,641
Dec	<u>17.9</u>	<u>14.92%</u>	56,544
TOTAL	120	100%	379,066

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