Exhibit No.:
Issues: Block Allocation for SGS

Witness: Kim J. Elvington
Sponsoring Party: MO PSC Staff
Type of Exhibit: Direct Testimony
Case No.: GR-2004-0209
Date Testimony Prepared: April 15, 2004

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

DIRECT TESTIMONY

OF

KIM J. ELVINGTON

MISSOURI GAS ENERGY

CASE NO. GR-2004-0209

Jefferson City, Missouri
April 2004

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Missouri Gas Energy's Tariff Sheets Designed to Increase Rates for Gas Service in the Company's Missouri Service Area	))))	Case No. GR-2004-0209

AFFIDAVIT OF KIM J. ELVINGTON

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

Kim J. Elvington, of lawful age, on her oath states: that she has participated in the preparation of the following Direct Testimony in question and answer form, consisting of 5 pages of Direct Testimony to be presented in the above case, that the answers in the following Direct Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true to the best of her knowledge and belief.

Kim J. Elvington

Subscribed and sworn to before me this 7th day of April, 2004.

Notary Public

DAWN L. HAKE
Notary Public – State of Missouri
County of Cole
My Commission Expires Jan 9, 2005

My commission expires _____

DIRECT TESTIMONY

OF

KIM J. ELVINGTON

MISSOURI GAS ENERGY

CASE NO. GR-2004-0209

Q. Please state your name and business address.

A. My name is Kim J. Elvington and my business address is P. O. Box 360, Jefferson City, Missouri, 65102.

Q. By whom are you employed and in what capacity?

A. I am employed by the Missouri Public Service Commission (PSC or Commission) as a Regulatory Economist in the Energy Department of the Utility Operations Division.

Q. How long have you been employed by the Commission?

A. I have worked at the Commission approximately four years.

Q. Please describe your educational background.

A. I attended William Woods University in Fulton, Missouri, where I obtained a Master of Business Administration degree in December 1998. Prior to graduate school, I attended Columbia College in Columbia, Missouri, from which I received a Bachelor of Science degree in Business Administration, with a major in Management, in May 1997.

Q. What has been the nature of your duties with the Commission?

A. Since January 2000, I have worked in the Commission's Energy Tariffs/Rate Design Department, where my main duties consist of analyzing and

A. Since January 2000, I have worked in the Commission's Energy Tariffs/Rate Design Department, where my main duties consist of analyzing and evaluating various tariff filings from regulated utilities operating in the state of Missouri and making recommendations to the Commission regarding those filings.

Q. Have you previously filed testimony before the Commission?

A. Yes, I have filed testimony relating to Case Nos. GR-2001-292 involving Missouri Gas Energy, GR-2002-356 regarding Laclede Gas Company and GR-2003-0517 involving AmerenUE.

Q. What is the purpose of your direct testimony?

A. My direct testimony covers the billing unit allocation for volumes normalized for weather and read cycle days computed by Staff Witness James A. Gray, of the Energy Tariffs/Rate Design Department, in the test year for MGE's Small General Service (SGS) rate class. The test year volumes, the normal volumes, and computed adjustments are shown in Schedules 2-1 through 2-3. The regression is demonstrated in schedule 1.

SMALL GENERAL SERVICE BILLING DETERMINANTS

Q. What billing determinants were established for the SGS class by the current rate design and how are Mr. Gray's normalized volumes allocated according to these billing determinants?

A. MGE's current SGS rates are differentiated into two blocks and two seasons. For SGS customers, the *first block, or initial block,* contains the first 600 Ccf (hundred cubic feet) of natural gas used in the month and the *second block, or tail block,* contains all volumes over 600 Ccf per month. In order for Staff witness, Mr. Paul Harrison of the Auditing Department to compute the revenues associated with the normal

volumes, the normal volumes must be properly allocated monthly to each block and season to determine the rate at which the volumes are to be computed.

Q. What data are used to compute these billing determinants?

A. The Company provided Staff with test year (July 2002 – June 2003) monthly active meters and volumes by block for the SGS rate code and customer classes served on the SGS tariff. I used the Company's test year blocked volumes to determine the percentage of usage falling into each rate block for each month. Because the rates are the same for the three divisions of their service area – Joplin District, Kansas City District, and St. Joseph District, the monthly data were aggregated over the service areas and the SGS active meters (a.k.a. *customers*) were combined into a system total.

Q. How did you use that data to determine normalized billing determinants for the test year?

A. For the SGS class, using the monthly bill frequency data for July 2002 – June 2003, the monthly percent of use in the initial block has a high correlation with the monthly average use per customer per day. I observed that in the lower heating months of June through October the percent in the first block is nearly constant. In these months the use per customer is less than 100 Ccf. I used a simple average of the percent in the first block in the test year months June-October to estimate the normal percent in the first block for the months of June-October. For the remaining months, November-May, which have more heating use, I used a regression to estimate an equation that quantified the relationship between the percentage of use in the first block in a month and the average use per customer per month. I used this relationship in order to estimate normal billing units in each month. Using the Company's test year monthly customer counts and bill

frequencies for the SGS class, I used the monthly Ccf per customer per day in the test year months of November 2002 –May 2003 to estimate an equation that related it to the monthly percent use in the first block. Next, the normal monthly usage per customer, computed by Staff Witness Gray, was used in the regression equation to estimate the normal monthly percent in the first block.

In computing the adjustment to the observed test year volumes (Schedule 2-1) that will yield the estimated normal volumes (Schedule 2-2), the adjustment in the second block is set equal to the total minus initial block adjustment (Schedule 2-3). In each month the block adjustments are restricted so neither block can go in a different direction than the total adjustment. If the block adjustments initially have opposite signs, the adjustment of the volumes in the first block is set to zero. The second block adjustment is then equal to the total adjustment. All of the monthly block adjustments were initially in the same direction as the total adjustment so this procedure to make adjustments consistent was not used.

The difference between the predicted normal volumes and test year volumes gives an estimated monthly adjustment for the first block (Schedule 2-3). The monthly adjustments to Test Year volumes in the blocks are in the third column of the Tables in Schedule 2-3. The monthly adjustments are summed into seasonal and annual totals. The normal volumes in the first block are estimated to be 61% of the total and the second block 39% of the total annual volumes (Schedule 2-2).

Q. What is the Staff's recommendation for weather adjusted gas usage for the SGS class?

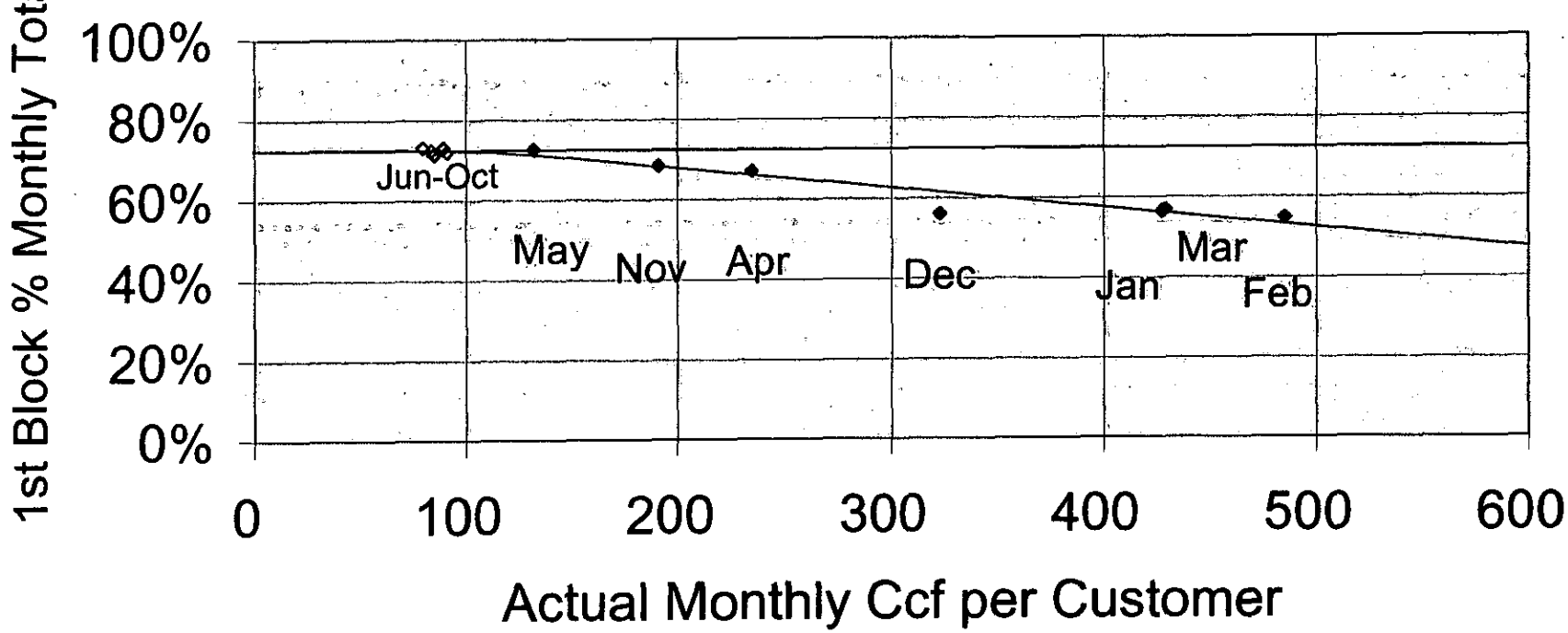
A. Schedule 2-3 contains the adjustment volumes for each billing month during the test year. The total adjustment for the SGS customer classes is a negative 817,394 Ccf. The total of these adjustments accounts for 100% of the adjustments made to both the first and second blocks. The volumes were allocated to the blocks for the SGS class as shown in Schedule 2-3. These adjustments were supplied to Staff witness Harrison for use in revenue normalization.

Q. Does this conclude your prepared Direct Testimony?

A. Yes, it does.

Missouri Gas Energy GR-2004-0209

Small General Service (SGS)



Schedule 1

MISSOURI GAS ENERGY
CASE NO. GR-2004-0209

ALL REGIONS
TEST YEAR JULY 2002 - JUNE 2003

SMALL GENERAL GAS SERVICE (SGS)
ACTUAL VOLUMES

Month	Total Meters	1st Block 0 - 600 Ccf	Tail Block Over 600 Ccf	Total Ccf
Jul	45,490	2,769,440	1,060,886	3,830,326
Aug	44,679	2,612,144	962,348	3,574,492
Sep	44,575	2,703,742	1,089,693	3,793,435
Oct	47,800	3,136,546	1,228,319	4,364,865
Nov	56,690	7,388,298	3,416,199	10,804,497
Dec	59,687	10,804,497	8,484,512	19,289,009
Jan	61,217	14,768,889	11,429,367	26,198,256
Feb	61,914	16,434,662	13,621,455	30,056,117
Mar	61,989	15,128,911	11,494,397	26,623,308
Apr	60,530	9,486,634	4,694,033	14,180,667
May	56,943	5,462,050	2,073,091	7,535,141
Jun	50,202	3,294,075	1,217,472	4,511,547
ANNUAL	651,716	93,989,888	60,771,772	154,761,660
NOV-MAR	301,497	64,525,257	48,445,930	112,971,187
APR-OCT	350,219	29,464,631	12,325,842	41,790,473

Schedule 2-1

MISSOURI GAS ENERGY
CASE NOS. GR-2004-0209

ALL REGIONS
TEST YEAR JULY 2002 - JUNE 2003

SMALL GENERAL GAS SERVICE (SGS)
NORMAL VOLUMES

Month	Total Meters	1st Block 0 - 600 Ccf	Tail Block Over 600 Ccf	Total Ccf
Jul	45,490	2,877,320	1,102,144	3,979,464
Aug	44,679	2,619,214	965,052	3,584,265
Sep	44,575	2,811,214	1,130,795	3,942,009
Oct	47,800	3,572,718	1,395,128	4,967,846
Nov	56,690	5,378,058	2,150,865	7,528,922
Dec	59,687	10,531,047	8,155,916	18,686,963
Jan	61,217	15,891,917	13,902,831	29,794,748
Feb	61,914	16,307,121	13,304,977	29,612,098
Mar	61,989	13,991,351	9,525,576	23,516,927
Apr	60,530	10,111,162	5,248,365	15,359,526
May	56,943	6,138,210	2,463,248	8,601,458
Jun	50,202	3,191,714	1,178,325	4,370,039
ANNUAL	651,716	93,421,045	60,523,221	153,944,266
NOV-MAR	301,497	62,099,494	47,040,165	109,139,659
APR-OCT	350,219	31,321,551	13,483,056	44,804,607

Schedule 2-2

MISSOURI GAS ENERGY
CASE NO. GR-2004-0209

ALL REGIONS
TEST YEAR JULY 2002 - JUNE 2003

SMALL GENERAL GAS SERVICE (SGS)
ADJUSTMENTS TO VOLUMES

Month	Total Meters	1st Block 0 - 600 Ccf	1st Block % Adjustment	Tail Block Over 600 Ccf	Tail Block % Adjustment	Total Ccf	Total % Adjustment
Jul	0	107,880	3.9%	41,258	3.9%	149,138	3.9%
Aug	0	7,070	0.3%	2,704	0.3%	9,773	0.3%
Sep	0	107,472	4.0%	41,102	3.8%	148,574	3.9%
Oct	0	436,172	13.9%	166,809	13.6%	602,981	13.8%
Nov	0	(2,010,240)	-27.2%	(1,265,334)	-37.0%	(3,275,575)	-30.3%
Dec	0	(273,450)	-2.5%	(328,596)	-3.9%	(602,046)	-3.1%
Jan	0	1,123,028	7.6%	2,473,464	21.6%	3,596,492	13.7%
Feb	0	(127,541)	-0.8%	(316,478)	-2.3%	(444,019)	-1.5%
Mar	0	(1,137,560)	-7.5%	(1,968,821)	-17.1%	(3,106,381)	-11.7%
Apr	0	624,528	6.6%	554,332	11.8%	1,178,859	8.3%
May	0	676,160	12.4%	390,157	18.8%	1,066,317	14.2%
Jun	0	(102,361)	-3.1%	(39,147)	-3.2%	(141,508)	-3.1%
ANNUAL		(568,843)	-0.6%	(248,551)	-0.2%	(817,394)	-0.5%
NOV-MAR		(2,425,763)	(0)	(1,405,765)	-0.012443572	(3,831,528)	(0)
APR-OCT		1,856,920	0	1,157,214	0.027690853	3,014,134	0

Schedule 2-3