

**BILLING ANALYSIS - DECLINING BLOCK RATES****INSTRUCTIONS**

The billing analysis is the chart reflecting the usage by the customers as well as the revenue generated by a specific level of rates. A billing analysis of both the current and proposed rates is mandatory for analysis of this rate filing. The following is a step-by-step description which may be used to complete the billing analysis. A completed sample of a billing analysis is also included. Although the sample reflects water usage, it is equally applicable for gas companies using declining block rate design. This billing analysis is not intended for companies using a flat rate design.

a. Usage Table (Usage by Rate Increment)

Information needed to complete the usage table should be obtained from the meter books or other available usage records. The usage table is used to spread total usage into the proper incremental rate step.

Column No. 1 is the incremental steps in the present or proposed rate schedule for which the analysis is being made. Column No. 2 is the number of bills in each incremental rate step. Column No. 3 is the total gallons used in each incremental rate step. Column Nos. 4, 5, 6, 7, 8, and 9 are labeled to correspond to the incremental rate steps shown in Column No. 1 and contain the actual number of gallons used in each incremental rate step.

Example for completing Usage Table is as follows:

Column No. 1 is incremental rate steps.

Columns numbered 2 and 3 are completed by using information obtained from usage records.

Columns numbered 4, 5, 6, 7, 8, and 9 are completed by the following steps:

Step 1: 1<sup>st</sup> 2,000 gallons minimum bill rate level

432 Bills

518,400 gallons used

All bills use 2,000 gallons or less, therefore, all usage is recorded in Column 4.

Step 2: Next 3,000 gallons rate level

1,735 Bills

4,858,000 gallons used

1<sup>st</sup> 2,000 minimum x 1,735 bills = 3,470,000 gallons - record in Column 4.

Next 3,000 gallons - remainder of water over 2,000 = 1,388,000 gallons - record in Column 5.

Step 3: Next 10,000 gallons rate level

1,830 Bills

16,268,700 gallons used

1<sup>st</sup> 2,000 minimum x 1,830 bills = 3,660,000 gallons - record in Column 4.

Next 3,000 gallons x 1,830 bills = 5,490,000 gallons - record in Column 5.

Next 10,000 gallons - remainder of water over 3,000 = 7,118,700 gallons - record in Column 6.

Step 4: Next 25,000 gallons rate level

650 Bills

15,275,000 gallons used

1<sup>st</sup> 2,000 minimum x 650 bills = 1,300,000 gallons - record in Column 4.

Next 3,000 gallons x 650 bills = 1,950,000 gallons - record in Column 5.

Next 10,000 gallons x 650 bills = 6,500,000 gallons - record in Column 6.

Next 25,000 gallons - remainder of water over 10,000 = 5,525,000 gallons - record in Column 7.

Step 5: Over 40,000 gallons rate level

153 Bills

9,975,600 gallons used

1<sup>st</sup> 2,000 minimum x 153 bills = 306,000 gallons - record in Column 4.

Next 3,000 gallons x 153 bills = 459,000 gallons - record in Column 5.

Next 10,000 gallons x 153 bills = 1,530,000 gallons - record in Column 6.

Next 25,000 gallons x 153 bills = 3,825,000 gallons - record in Column 7.

Over 40,000 gallons - remainder of water over 25,000 = 3,855,600 gallons - record in Column 8.

Step 6: Total each column for transfer to Revenue Table.

b. Revenue Table (Revenue by Rate Increment)

The Revenue Table is used to determine the revenue produced from the Usage Table. Column No. 1 is the incremental rate steps in the rate schedule for which the analysis is being made. Column No. 2 indicates the total number of bills. Column No. 3 is the number of gallons accumulated in each rate increment (Totals from Columns 4, 5, 6, 7, and 8 of the above usage table). Column No. 4 is the rates to be used in determining revenue. Column No. 5 contains the revenue produced.

Revenue from Present/Proposed Rates  
 Test Period from 01-01-XX to 12-31-XX

**USAGE TABLE**

Usage by Rate Increment

Class: Residential

(1)	(2) Bills	(3) Gallons/Mcf	(4) First 2,000	(5) Next 3,000	(6) Next 10,000	(7) Next 25,000	(8) Over 40,000	(9) Total
First 2,000 Minimum Bill	432	518,400	518,400					518,400
Next 3,000 Gallons	1,735	4,858,000	3,470,000	1,388,000				4,858,000
Next 10,000 Gallons	1,830	16,268,700	3,660,000	5,490,000	7,118,700			16,268,700
Next 25,000 Gallons	650	15,275,000	1,300,000	1,950,000	6,500,000	5,525,000		15,275,000
Over 40,000 Gallons	153	9,975,600	306,000	459,000	1,530,000	3,825,000	3,855,600	9,975,600
<b>Totals</b>	4,800	46,895,700	9,254,400	9,287,000	15,148,700	9,350,000	3,855,600	46,895,700

**REVENUE TABLE**

Revenue by Rate Increment

(1)	(2) Bills	(3) Gallons/Mcf	(4) Rates	(5) Revenue
First 2,000 Minimum Bill	4,800	9,254,400	\$5.00 Minimum Bill	\$24,000.00
Next 3,000 Gallons		9,287,000	\$2.50 per 1,000 Gal.	\$23,217.00
Next 10,000 Gallons		15,148,700	\$2.00 per 1,000 Gal.	\$30,297.40
Next 25,000 Gallons		9,350,000	\$1.25 per 1,000 Gal.	\$11,687.50
Over 40,000 Gallons		3,855,600	\$0.75 per 1,000 Gal.	\$2,891.70
<b>Totals</b>	4,800	46,895,700		\$92,094.10

**Instructions for Completing Revenue Table:**

- (9) Complete Columns No. 1, 2, and 3 using information from Usage Tables.
- (10) Complete Column No. 4 using rates either present or proposed.
- (11) Column No. 5 is completed by first multiplying the bills times the minimum charge. Then, starting with the second rate increment, multiply Column No. 3 by Column No. 4 and total.

Revenue from Present/Proposed Rates  
 Test Period from 01-01-16 to 12-31-16

**USAGE TABLE**

Usage by Rate Increment

Class: RES/COMM

(1)	(2) Bills	(3) Gallons/Mcf	(4) First 2,000	(5) Next 3,000	(6) Next 5,000	(7) Next 10,000	(8) Next 20,000	(9) Total
First 2,000 min. bill	3978	4075,900	4,075,900	0	0	0	0	4,075,900
Next 3,000 gallons	5051	16,922,900	10,102,000	6,820,900	0	0	0	16,922,900
Next 5,000 gallons	2013	13,587,500	4,036,000	6,039,000	3,522,500	0	0	13,587,500
Next 10,000 gallons	401	5,301,200	802,000	1,202,000	2,005,000	1,291,200	0	5,301,200
Next 20,000 gallons	111	3,500,800	222,000	332,000	552,000	1,110,000	1,280,800	3,500,800
Totals	11554	43,388,300	19,227,900	14,385,900	6,082,500	2,401,200	1,280,800	43,388,300

**REVENUE TABLE**

Revenue by Rate Increment

(1)	(2) Bills	(3) Gallons/Mcf	(4) Rates	(5) Revenue
First 2,000 Min. Bill	11554	19,227,900	24.98 minimum bill	\$ 288,618.92
Next 3,000 gallons		14,395,900	8.71 per 1,000	125,388.29
Next 5,000 gallons		6,082,500	7.85 per 1,000	47,747.63
Next 10,000 gallons		2,401,200	6.98 per 1,000	16,760.38
Next 20,000 gallons		1,280,800	6.15 per 1,000	7,876.92
Totals		43,388,300		\$ 486,392.13

Instructions for Completing Revenue Table:

- (9) Complete Columns No. 1, 2, and 3 using information from Usage Tables.
- (10) Complete Column No. 4 using rates either present or proposed.
- (11) Column No. 5 is completed by first multiplying the bills times the minimum charge. Then, starting with the second rate increment, multiply Column No. 3 by Column No. 4 and total.

Revenue from Present/Proposed Rates  
 Test Period from 01-01-10 to 12-31-10

**USAGE TABLE**

Usage by Rate Increment

Class: Res/Comm

(1)	(2) Bills	(3) Gallons/Mcf	(4) First 2,000	(5) Next 3,000	(6) Next 5,000	(7) Next 10,000	(8) Next 20,000	(9) Total
First 2,000 Min. Bill	3978	4,075,900	4,075,900	0	0	0	0	4,075,900
Next 3,000 gallons	5051	16,922,900	10,102,000	6,820,900	0	0	0	16,922,900
Next 5,000 gallons	2013	13,587,500	4,026,000	6,039,000	3,522,500	0	0	13,587,500
Next 10,000 gallons	401	5,301,200	802,000	1,203,000	2,005,000	1,291,200	0	5,301,200
Next 20,000 gallons	111	3,500,800	222,000	333,000	555,000	1,110,000	1,280,800	3,500,800
Totals	11,554	43,388,300	19,227,900	14,395,900	6,082,500	2,401,200	1,280,800	43,388,300

**REVENUE TABLE**

Revenue by Rate Increment

(1)	(2) Bills	(3) Gallons/Mcf	(4) Rates	(5) Revenue
First 2,000 min bill	11554	19,227,900	29.98 minimum bill	\$ 346,342.70
Next 3,000 gallons		14,395,900	10.45 per 1,000	150,465.95
Next 5,000 gallons		6,082,500	9.42 per 1,000	57,297.15
Next 10,000 gallons		2,401,200	8.38 per 1,000	20,122.45
Next 20,000 gallons		1,280,800	7.38 per 1,000	9,452.30
Totals	11,554	43,388,300		\$583,670.56

Instructions for Completing Revenue Table:

- (9) Complete Columns No. 1, 2, and 3 using information from Usage Tables.
- (10) Complete Column No. 4 using rates either present or proposed.
- (11) Column No. 5 is completed by first multiplying the bills times the minimum charge. Then, starting with the second rate increment, multiply Column No. 3 by Column No. 4 and total.