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JUN 12 2007

PUBLIC SERVICE
COMMISSION

VIA OVERNIGHT MAIL

June 11, 2007

Beth A. O'Donnell, Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602

Re: Case No. 2007-00008

Dear Ms. O'Donnell:

Please find enclosed the original and twelve (12) copies of the Direct Testimony and Exhibits of Richard A. Baudino filed on behalf of the Kentucky Industrial Utility Customers, Inc. in the above-referenced matters. By copy of this letter, all parties listed on the Certificate of Service have been served.

Please place this document of file.

Very Truly Yours,



David F. Boehm, Esq.
Michael L. Kurtz, Esq.
BOEHM, KURTZ & LOWRY

MLKkew
Attachment
cc: Certificate of Service

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing was served by mailing a true and correct copy, by first-class postage prepaid mail to all parties on the 11th day of June, 2007.

Honorable David Jeffrey Barberie
Corporate Counsel
Lexington-Fayette Urban County Government Department Of Law
200 East Main Street
Lexington, KY 40507

Lawrence W Cook
Assistant Attorney General
Office of the Attorney General Utility & Rate
1024 Capital Center Drive, Suite 200
Frankfort, KY 40601-8204


Honorable Mark R Kempic
Assistant General Counsel
501 Technology Drive
Canonsburg, PA 15417

Honorable Matthew R Malone
Hurt, Crosbie & May PLLC
The Equus Building
127 West Main Street
Lexington, KY 40507

Honorable Vincent A Parisi
Interstate Gas Supply, Inc.
5020 Bradenton Avenue
Dublin, OH 43017

Honorable Stephen B Seiple
Columbia Gas of Kentucky, Inc.
200 Civic Center Drive
P.O. Box 117
Columbus, OH 43216-0117

Honorable Richard S Taylor
Capital Link Consultants
225 Capital Avenue
Frankfort, KY 40601



David F. Boehm, Esq.
Michael L. Kurtz, Esq.

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

**IN THE MATTER OF ADJUSTMENT OF RATES OF)
COLUMBIA GAS OF KENTUCKY, INC.)**

CASE NO. 2007-00008

RECEIVED

JUN 12 2007

**PUBLIC SERVICE
COMMISSION**

**DIRECT TESTIMONY
AND EXHIBITS
OF
RICHARD A. BAUDINO**

ON BEHALF OF

KENTUCKY INDUSTRIAL UTILITY CONSUMERS

J. KENNEDY AND ASSOCIATES, INC.

JUNE 2007

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF ADJUSTMENT OF RATES OF)
COLUMBIA GAS OF KENTUCKY, INC.) CASE NO. 2007-00008

DIRECT TESTIMONY OF RICHARD A. BAUDINO

1

2

I. INTRODUCTION

3

4 **Q. Please state your name and business address.**

5 A. My name is Richard A. Baudino. My business address is J. Kennedy and Associates,
6 Inc. ("Kennedy and Associates"), 570 Colonial Park Drive, Suite 305, Roswell, Georgia
7 30075.

8

9 **Q. What is your occupation and by whom are you employed?**

10

11 A. I am a consultant to Kennedy and Associates.

12

13 **Q. Please describe your education and professional experience.**

14

15 A. I received my Master of Arts degree with a major in Economics and a minor in Statistics
16 from New Mexico State University in 1982. I also received my Bachelor of Arts Degree
17 with majors in Economics and English from New Mexico State in 1979.

1 I began my professional career with the New Mexico Public Service Commission Staff
2 in October 1982 and was employed there as a Utility Economist. During my
3 employment with the Staff, my responsibilities included the analysis of a broad range of
4 issues in the ratemaking field. Areas in which I testified included cost of service, rate of
5 return, rate design, revenue requirements, analysis of sale/leasebacks of generating
6 plants, utility finance issues, and generating plant phase-ins.

7
8 In October 1989, I joined the utility consulting firm of Kennedy and Associates as a
9 Senior Consultant where my duties and responsibilities covered substantially the same
10 areas as those during my tenure with the New Mexico Public Service Commission Staff.

11 I became Manager in July 1992 and was named Director of Consulting in January 1995.
12 Currently, I am a consultant with Kennedy and Associates.

13
14 Exhibit ____ (RAB-1) summarizes my expert testimony experience.

15
16 **Q. On whose behalf are you testifying?**

17
18 A. I am testifying on behalf of the Kentucky Industrial Utility Consumers ("KIUC").
19

20 **Q. What is the purpose of your testimony?**

21
22 A. The purpose of my testimony in the proceeding is to evaluate the reasonableness of the
23 cost and revenue allocation proposals set forth in the Direct Testimony filed on behalf of

1 Columbia Gas of Kentucky, Inc. (“Columbia” or “Company”) by witness Ronald D.
2 Gibbons. I also reviewed and evaluated the reasonableness of the Company’s proposed
3 tariff changes to the Delivery Service (“DS”) rate schedule by witness Judy M. Cooper.
4

5 **Q. Please summarize your conclusions and recommendations to the Kentucky Public**
6 **Service Commission (“KPSC” or “Commission”).**

7
8 A. My conclusions and recommendations are as follows:

- 9
- 10 1. I disagree with the Company’s method of allocating its revenue increased
11 partially on the basis of a cost study that allocates 50% of distribution mains cost
12 on the basis of throughput. I recommend that the Commission allocate revenue
13 increases to customer classes based on the Company’s customer-demand study.
14
 - 15 2. For purposes of this case, I do not oppose the Company’s proposed increases to
16 its customer classes.
17
 - 18 3. The Commission should reject the \$25 per Mcf penalty for failure to interrupt
19 proposed by the Company on page 90 of the DS General Terms and Conditions.
20 Company witnesses provided no basis for the inclusion of this charge.
21
 - 22 4. The Commission should reject all of the Company’s proposed changes to page
23 91, Banking and Balancing Service, of the General Terms and Conditions for
24 Delivery Service. These changes include limitations of the use of banked
25 volumes during periods of interruption and new imbalance charges for over and
26 under deliveries of gas. Once again, the Company provided no basis for these
27 new penalties and restrictions.
28
 - 29 5. The Commission should reject the Company’s proposed Section E, Balancing
30 Service Interruption. This section provides new restriction limits and a \$25 per
31 Mcf penalty charge, neither of which were justified in the Company’s testimony
32 or by any evidence presented in the Company’s direct case.
33
 - 34 6. On page 97, Section 5, the Company included a change in the contract
35 cancellation provision, stating that the customer must give notice by April 1 to
36 become effective on Nov.1 of that year. The Company failed to justify or

1 explain this change and, therefore, I recommend that it be rejected by the
2 Commission.
3
4

5 **II. COST AND REVENUE ALLOCATION**

6
7 **Q. Did you review Columbia's cost and revenue allocation proposals?**

8
9 A. Yes. These proposals are contained in the Direct Testimony and exhibits of Mr.
10 Gibbons. Mr. Gibbons sponsored two cost of service studies that formed the basis for
11 his recommended revenue increases to the Company's customer classes.
12

13 **Q. Please provide a general description of the process of allocating cost responsibility**
14 **to customer classes using a cost of service study.**

15
16 A. A class cost of service study allocates and assigns the total cost of providing utility
17 service to the classes of customers receiving that service. In certain instances, the
18 subject utility can identify and directly assign costs to customers. For the vast majority
19 of costs, however, such direct assignments are not possible and a cost of service study is
20 required so that the remaining costs may be allocated to customers.
21

22 The development of a class cost of service study consists of three steps:
23 functionalization, classification, and allocation. Step 1, functionalization, involves
24 separating the utility's investment and expenses into major functional categories. For

1 natural gas utilities such as Vectren South, these categories include production, storage,
2 transmission, and distribution functions. The FERC Uniform System of Accounts
3 provides the method by which costs are identified and segregated into these various
4 functional categories.

5
6 Step 2 is classification. Once functionalization is complete, the utility's costs are
7 classified into demand, commodity, and customer components. Demand-related costs
8 are fixed and do vary with the monthly and yearly gas commodity consumption of the
9 utility's customers. These costs are driven by demands placed on the system during the
10 winter peak period and include such items as gas main investment and expenses.
11 Commodity-related expenses vary with the amount of gas consumed by customers and
12 include the cost of gas and certain operation and maintenance expenses. Customer-
13 related costs are associated with the number of customers and include items such as a
14 portion of main investment, meters, and services.

15
16 Step 3 is allocation. After costs are classified, they are allocated to customer classes
17 based on each class' contribution to the respective cost classifications. Generally
18 speaking, demand costs are allocated based on each class' contribution to the total
19 winter peak. Commodity costs are allocated based on each class' share of total yearly
20 consumption, or throughput. Customer costs are allocated based on the number of
21 customers.

22

1 **Q. Turning now to Columbia's class cost of service studies, how did the Company**
2 **classify and allocate costs associated with mains?**

3

4 A. Mr. Gibbons presented two cost of service studies that contained different approaches to
5 the classification and allocation of the cost of mains. The demand-commodity ("D/C")
6 study classifies and allocates mains on the basis of 50% demand and 50% commodity.
7 The customer-demand ("C/D") study classifies and allocates mains on the basis of a
8 minimum size system study. This study resulted in mains being classified as 36.53%
9 demand and 63.47% customer.

10

11 **Q. Is it appropriate to classify and allocate a portion of the costs of mains on the basis**
12 **of total throughput?**

13

14 A. No. Any classification of gas distribution main costs that contains a commodity-related
15 component is inappropriate. Investment in mains is driven primarily by the peak winter
16 demands and the number of customers, not average use throughout the year. During the
17 non-winter months, substantial excess capacity exists on the system. Use of the
18 company's distribution system during these months does not cause additional fixed costs
19 to be incurred by the Company. In fact, high load factor customers provide valuable
20 margins to the Company during off-peak months when the demands of residential
21 heating customers are very low.

22

1 Peak winter demand is one of the primary drivers of Columbia's investment in mains. If
2 the peak winter demand increases, the Company may need to invest in additional mains
3 to serve the load. Likewise, if the number of customers increases, the Company may
4 need to expand its distribution system investment. In my view, this is just obvious
5 common sense in terms of the two factors that drive a gas distribution company's main
6 costs. Throughput, which varies substantially during the year, is not what causes
7 Columbia's investment in the fixed costs of distribution mains.

8
9 **Q. On page 3, lines 14 through 19 of his Direct Testimony, Mr. Gibbons noted that the**
10 **Company had filed the two-study approach in past cases and that the Commission**
11 **“has accepted Columbia’s use of multiple cost-of-service studies in previous**
12 **proceedings and has encouraged Columbia to continue using multiple studies.”**
13 **Please respond to Mr. Gibbons’ testimony.**

14
15 A. Case Nos. 2002-00145 and 94-179 were both settled by the parties in the case and, based
16 on my review of the Commission Orders, there was no finding as to the appropriateness
17 of the two-study approach to cost and revenue allocation for the Company. I believe that
18 the issue of which cost of service study approach to use is still open and that parties may
19 recommend to the Commission which approach is appropriate.

20
21 **Q. Please summarize the results of the cost of service studies presented by Mr.**
22 **Gibbons.**

1 A. Table 1 below provides a comparison of the current rate of return for each customer
2 class using the Company's two cost of service studies. By current rate of return, I mean
3 the rate of return at current rates. Table 1 also presents class relative rates of return.
4 The relative rate of return measures the class rate of return relative to the system rate of
5 return. A relative rate of return of 1.0 indicates that the class rate of return equals the
6 system rate of return. A relative rate of return of 2.0 means that the class rate of return is
7 twice the system average. A relative rate of return of .5 indicates that the class rate of
8 return is half, or 50%, of the system rate of return.

9

	Customer/Demand		Demand/Commodity	
	<u>Return Pct.</u>	<u>Relative ROR</u>	<u>Return Pct.</u>	<u>Relative ROR</u>
GS-RES.	0.02%	0.00	2.71%	0.64
GS-OTHER	12.10%	2.84	9.33%	2.19
IUS	-2.04%	(0.48)	-3.72%	(0.87)
DS-ML/SC	N/A	N/A	N/A	N/A
DS/IS/SS	18.84%	4.42	0.35%	0.08
TOTAL SYSTEM	4.26%		4.26%	

10

11

12 **Q. What do the class rates of return in Table 1 show with respect to the GSR/GTR**
13 **class?**

14

1 A. The rates of return in Table 1 show that under both of Columbia's cost of service
2 studies, the Residential classes (GSR/GTR) are being subsidized by the other customer
3 classes. This is especially the case under the Customer/Demand study, where the
4 Residential class rate of return is barely above zero. However, both studies support a
5 larger than average increase for the GSR/GTR classes.

6

7 **Q. With respect to the distribution of class revenue increases, do you support the**
8 **approach used by Mr. Gibbons in this proceeding?**

9

10 A. For purposes of this case, I support Mr. Gibbons' approach. According to both the D/C
11 and the C/D studies, the GSR/GTR classes should definitely receive an increase that is
12 significantly larger than the system average increase. The Company's revenue increase
13 approach moves toward eliminating the subsidies received by the Residential class,
14 although it does not eliminate the subsidy entirely.

15

16

III. TARIFF ISSUES

17

18 **Q. Have you reviewed the Company's proposed changes to the DS tariff and the**
19 **associated terms and conditions?**

20

21 A. Yes. Columbia has proposed several significant changes to the DS tariff and its terms
22 and conditions that I will address in this section of my testimony. The proposed changes
23 I address are as follows:

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1. New Section 3 inserted in the DS rate schedule that specifies that Columbia is not required to deliver more than the lesser of the Maximum Daily Volume (“MDV”), the quantities of gas scheduled and confirmed, or the Authorized Daily Volume. New Section 4 in the Main Line Delivery Service (“MLDS”) tariff is worded along the same line. Exhibit ____ (RAB-2) contains the Company’s proposed changes to pages 38 and 41.
2. New Section 4 inserted in the DS rate schedule provides that MDV and Annual Transportation Volume (“ATV”) will be adjusted annually to the customer’s actual MDV and ATV based on prior 12 months. New Section 5 in the MLDS contains a similar provision. Exhibit ____ (RAB-2) contains the Company’s proposed changes to pages 38 and 41.
3. On Page 90, Interruption, the Company added a \$25 per Mcf penalty charge for failure to interrupt, plus all applicable penalties. Exhibit ____ (RAB-3) contains a copy of Page 90 and the Company’s proposed language.
4. On Page 91, Banking and Balancing Service, Columbia inserted new text regarding imposition of new imbalances charges based on 80% (over deliveries) and 120% (under deliveries) of gas based on the index prices from Gas Daily. This change applies to daily cash-outs and to a customer’s total volume bank. Exhibit ____ (RAB-3) contains a copy of the Company’s proposed language.
5. On Page 92, Columbia included a new Section E for Balancing Service Interruption (“BSI”) customers. This is applicable to customers without Daily Metering and gives Columbia the authority to direct customers “to schedule confirmed supply volumes to match Columbia’s estimate of their daily usage.” Customers get a 3% band around their scheduled confirmed supply volumes. Failure to comply will result in the application of penalties, which include \$25/Mcf times the BSI difference and the payment of all other associated charges incurred by Columbia. Customers with daily metering are subject to similar restrictions and penalties. Exhibit ____ (RAB-3) contains a copy of the Company’s proposed language.
6. On Page 97, Columbia included a new restrictive Interruption section (Section 3). Section 5, Term, changes the contract cancellation provision, stating that the customer must give notice by April 1 to become effective on Nov.1 of that year. Exhibit ____ (RAB-4) contains a copy of the Company’s proposed language.

Q. With respect to change No. 1 listed above, did the Company provide any supporting testimony, documentation, or analysis supporting its proposal?

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A. No. Neither Ms. Cooper nor any other Company witness explained or even mentioned this proposed change. The proposed change appears to place more restrictions on the amount of transported gas that the Company is willing to deliver to DS and MLDS customers.

Q. What is your recommendation regarding the proposed change in delivery quantities in the DS and MLDS rate schedules?

A. I recommend that the Commission reject the Company’s proposed language in new Sections 3 and 4 of the DS and MLDS tariffs, respectively. Columbia provided no basis or justification for this change in its filing.

Q. With respect to change No. 2 listed above, did the Company provide any supporting testimony, documentation, or analysis supporting its proposal?

A. No. Neither Ms. Cooper nor any other Company witness explained or even mentioned this proposed change. The proposed change would mechanically reset MDV and ATV quantities without any input from the DS and MLDS customers.

Q. What is your recommendation regarding the proposed change in resetting annual delivery quantities in the DS and MLDS rate schedules?

1 A. I recommend that the Commission reject the Company's proposed language in new
2 Sections 4 and 5 of the DS and MLDS tariffs, respectively. Columbia provided no basis
3 or justification for this change in its filing.

4
5 **Q. With respect to change No. 3 listed above, did the Company provide any**
6 **supporting testimony, documentation, or analysis supporting its proposal?**

7
8 A. No. Columbia provided no basis for the inclusion of an additional penalty of \$25 per
9 Mcf for failure to interrupt deliveries.

10
11 **Q. What is your recommendation with respect to Columbia's proposed additional**
12 **penalty of \$25 per Mcf for failure to interrupt?**

13
14 A. I recommend that the Commission reject Columbia's proposed new penalty. Currently,
15 the customer must reimburse Columbia for all penalties and fines incurred as a result of
16 the customer's failure to interrupt, which fairly reimburses the Company and, potentially
17 sales gas customers, for fines passed through the gas adjustment clause. Columbia
18 failed to provide any basis for an additional penalty.

19
20 **Q. With respect to change No. 4 listed above, did the Company provide any**
21 **supporting testimony, documentation, or analysis supporting its proposal?**

22

1 A. Columbia provided very little explanation in its filed testimony for the proposed new
2 balancing provisions. On page 8 of her Direct Testimony, Ms. Cooper merely
3 mentioned that the new cash-out provision was added “to better reflect the appropriate
4 price during volatile market periods”, but provided no analysis or other support. With
5 respect to the new provision in the “Imbalances” section, she stated that the modified
6 provision was included “to provide an economic incentive for customers to better
7 manage their volume banks within the prescribed monthly limitations of Columbia’s
8 tariff”. Again, no analysis or other support was provided for this new balancing
9 provision.

10

11 **Q. What is your recommendation with respect to Columbia’s cash-out and imbalance**
12 **proposals (change no. 4) to which you referred earlier in this section of your**
13 **testimony?**

14

15 A. I recommend that the Commission reject the Company’s proposed changes in the cash-
16 out and imbalance (volume bank) language on page 91 of its terms and conditions for
17 delivery service. Columbia provided no evidence that these new balancing penalties are
18 necessary or reasonable. Further, Columbia did not provide any evidence that the
19 current cash-out and volume bank provisions are not working properly or adequately.

20

21 **Q. With respect to change No. 5 listed above, did the Company provide any**
22 **supporting testimony, documentation, or analysis supporting its proposal?**

23

1 A. Not really. Ms. Cooper merely noted on page 8 of her Direct Testimony that the BSI
2 provision was the same language pending before the Commission in Case No. 2005-
3 00184 except for a change in the term Daily Delivery Interruption to Balancing Service
4 Interruption. However, she provided no explanation, analysis, or other justification for
5 this extensive new balancing service interruption provision.

6

7 **Q. Briefly summarize the Company's proposed BSI provision.**

8

9 A. The new provision includes detailed language that gives Columbia power to restrict a
10 DS/MLDS customer's daily usage within a 3% tolerance band and imposes a \$25 per
11 Mcf charge plus all other applicable fines and costs for consumption outside of this
12 band. For customers without daily metering, the Company is empowered to estimate the
13 customer's daily usage and set that estimate as the target around which the 3% band
14 would operate.

15

16 **Q. Mr. Baudino, is the pending settlement in Case No. 2005-00184 determinative of**
17 **what happens in this proceeding?**

18

19 A. No. The pending settlement in Case No. 2005-00184 is only between two parties,
20 Columbia and Constellation NewEnergy. Based on my reading of the Stipulation and
21 Recommendation in that case, the proposed new BSI language merely represents the
22 settlement of a dispute between the two parties. No other party signed the Settlement
23 and, as far as I know, has not been endorsed by the Commission Staff or any other party.

1 Therefore, the fact that the Settlement and Recommendation is currently before the
2 Commission in and of itself carries no weight. Instead, the Company should have
3 discussed the merits of approving the Settlement language in this case and provided
4 evidence as to its reasonableness. The Company has not done this.

5
6 **Q. Mr. Baudino, should the Commission approve Columbia’s proposed BSI language**
7 **on page 92 of the terms and conditions for Delivery Service?**

8
9 A. No. Based on the discussion I have just presented, I recommend that the Commission
10 reject the proposed BSI language. Columbia failed to support its BSI proposal in this
11 proceeding.

12
13 **Q. With respect to change no. 6 that you listed earlier in your testimony, did the**
14 **Company provide and explanation or support for the new language it seeks to**
15 **include on page 97 (Delivery Service Agreement)?**

16
17 A. No. Ms. Cooper failed to mention these changes in her Direct Testimony. The proposed
18 Interruption language is quite concerning because it grants Columbia unlimited power to
19 interrupt Delivery Service “at its sole discretion.” So, for example, if Columbia failed to
20 make prudent investments in plant to serve its customers, this provision would allow the
21 Company to simply interrupt DS and MLDS customers whenever it wanted. This
22 proposed Interruption provision is far too broad and gives the Company too much
23 discretion in declaring interruptions of service to DS/MLDS customers.

1

2 **Q. Should the Commission approve Columbia's proposed changes to the Delivery**
3 **Service Agreement?**

4

5 A. No. I recommend the Commission reject the proposed changes to the Delivery Service
6 Agreement.

7

8 **Q. Does this conclude your Direct Testimony?**

9

10 A. Yes.

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

**IN THE MATTER OF ADJUSTMENT OF RATES OF)
COLUMBIA GAS OF KENTUCKY, INC.) CASE NO. 2007-00008**

**EXHIBITS
OF
RICHARD A. BAUDINO**

**ON BEHALF OF
KENTUCKY INDUSTRIAL UTILITY CONSUMERS**

J. KENNEDY AND ASSOCIATES, INC.

JUNE 2007

RESUME OF RICHARD A. BAUDINO

EDUCATION

New Mexico State University, M.A.
Major in Economics
Minor in Statistics

New Mexico State University, B.A.
Economics
English

Twenty four years of experience in utility ratemaking. Broad based experience in revenue requirement analysis, cost of capital, utility financing, phase-ins, auditing and rate design. Has designed revenue requirement and rate design analysis programs.

REGULATORY TESTIMONY

Preparation and presentation of expert testimony in the areas of:

Electric and Gas Utility Rate Design
Cost of Capital for Electric, Gas and Water Companies
Ratemaking Treatment of Generating Plant Sale/Leasebacks
Electric and Gas Utility Cost of Service
Revenue Requirements
Gas industry restructuring and competition
Fuel cost auditing

RESUME OF RICHARD A. BAUDINO

EXPERIENCE

1989 to

Present: Kennedy and Associates: Consultant - Responsible for consulting assignments in the area of revenue requirements, rate design, cost of capital, economic analysis of generation alternatives, gas industry restructuring and competition.

1982 to

1989: New Mexico Public Service Commission Staff: Utility Economist - Responsible for preparation of analysis and expert testimony in the areas of rate of return, cost allocation, rate design, finance, phase-in of electric generating plants, and sale/leaseback transactions.

CLIENTS SERVED

Regulatory Commissions

Louisiana Public Service Commission
Georgia Public Service Commission
New Mexico Public Service Commission

Industrial Groups

Ad Hoc Committee for a Competitive
Electric Supply System
Air Products and Chemicals, Inc.
Arkansas Electric Energy Consumers
Arkansas Gas Consumers
Armco Steel Company, L.P.
Association of Business Advocating
Tariff Equity
CF&I Steel, L.P.
Climax Molybdenum Company
General Electric Company
Industrial Energy Consumers
Kentucky Industrial Utility Consumers
Large Electric Consumers Organization
Newport Steel
Northwest Arkansas Gas Consumers
Maryland Industrial Group
Occidental Chemical

PSI Industrial Group
Taconite Intervenors (Minnesota)
Tyson Foods
West Virginia Energy Users Group

**Expert Testimony Appearances
of
Richard A. Baudino
As of May 2007**

Date	Case	Jurisdiction	Party	Utility	Subject
3/83	1780	NM	New Mexico Public Service Commission	Boles Water Co.	Rate design, rate of return.
10/83	1803, 1817	NM	New Mexico Public Service Commission	Southwestern Electric Coop	Rate design.
11/84	1833	NM	New Mexico Public Service Commission	El Paso Electric Co.	Service contract approval, rate design, performance standards for Palo Verde nuclear generating system
1983	1835	NM	New Mexico Public Service Commission	Public Service Co. of NM	Rate design.
1984	1848	NM	New Mexico Public Service Commission	Sangre de Cristo Water Co.	Rate design.
02/85	1906	NM	New Mexico Public Service Commission	Southwestern Public Service Co.	Rate of return.
09/84	1907	NM	New Mexico Public Service Commission	Jomada Water Co.	Rate of return.
11/85	1957	NM	New Mexico Public Service Commission	Southwestern Public Service Co.	Rate of return.
04/86	2009	NM	New Mexico Public Service Commission	El Paso Electric Co.	Phase-in plan, treatment of sale/leaseback expense.
06/86	2032	NM	New Mexico Public Service Commission	El Paso Electric Co.	Sale/leaseback approval.
09/86	2033	NM	New Mexico Public Service Commission	El Paso Electric Co.	Order to show cause, PVNGS audit.
02/87	2074	NM	New Mexico Public Service Commission	El Paso Electric Co.	Diversification.
05/87	2089	NM	New Mexico Public Service Commission	El Paso Electric Co.	Fuel factor adjustment.
08/87	2092	NM	New Mexico Public Service Commission	El Paso Electric Co.	Rate design.

**Expert Testimony Appearances
of
Richard A. Baudino
As of May 2007**

Date	Case	Jurisdiction	Party	Utility	Subject
10/88	2146	NM	New Mexico Public Service Commission	Public Service Co. of New Mexico	Financial effects of restructuring, reorganization.
07/88	2162	NM	New Mexico Public Service Commission	El Paso Electric Co.	Revenue requirements, rate design, rate of return.
01/89	2194	NM	New Mexico Public Service Commission	Plains Electric G&T Cooperative	Economic development.
1/89	2253	NM	New Mexico Public Service Commission	Plains Electric G&T Cooperative	Financing.
08/89	2259	NM	New Mexico Public Service Commission	Homestead Water Co.	Rate of return, rate design.
10/89	2262	NM	New Mexico Public Service Commission	Public Service Co. of New Mexico	Rate of return.
09/89	2269	NM	New Mexico Public Service Commission	Ruidoso Natural Gas Co.	Rate of return, expense from affiliated interest.
12/89	89-208-TF	AR	Arkansas Electric Energy Consumers	Arkansas Power & Light Co.	Rider M-33.
01/90	U-17282	LA	Louisiana Public Service Commission	Gulf States Utilities	Cost of equity.
09/90	90-158	KY	Kentucky Industrial Utility Consumers	Louisville Gas & Electric Co.	Cost of equity.
09/90	90-004-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Cost of equity, transportation rate.
12/90	U-17282 Phase IV	LA	Louisiana Public Service Commission	Gulf States Utilities	Cost of equity.
04/91	91-037-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Transportation rates.
12/91	91-410-EL-AIR	OH	Air Products & Chemicals, Inc., Armco Steel Co., General Electric Co., Industrial Energy Consumers	Cincinnati Gas & Electric Co.	Cost of equity.

**Expert Testimony Appearances
of
Richard A. Baudino
As of May 2007**

Date	Case	Jurisdct.	Party	Utility	Subject
05/92	910890-EI	FL	Occidental Chemical Corp.	Florida Power Corp.	Cost of equity, rate of return.
09/92	92-032-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Cost of equity, rate of return, cost-of-service.
09/92	39314	ID	Industrial Consumers for Fair Utility Rates	Indiana Michigan Power Co.	Cost of equity, rate of return.
09/92	92-009-U	AR	Tyson Foods	General Waterworks	Cost allocation, rate design.
01/93	92-346	KY	Newport Steel Co.	Union Light, Heat & Power Co.	Cost allocation.
01/93	39498	IN	PSI Industrial Group	PSI Energy	Refund allocation.
01/93	U-10105	MI	Association of Businesses Advocating Tariff Equality (ABATE)	Michigan Consolidated Gas Co.	Return on equity.
04/93	92-1464-EL-AIR	OH	Air Products and Chemicals, Inc., Armco Steel Co., Industrial Energy Consumers	Cincinnati Gas & Electric Co.	Return on equity.
09/93	93-189-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Transportation service terms and conditions.
09/93	93-081-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Cost-of-service, transportation rates, rate supplements; return on equity; revenue requirements.
12/93	U-17735	LA	Louisiana Public Service Commission Staff	Cajun Electric Power Cooperative	Historical reviews; evaluation of economic studies.
03/94	10320	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric Co.	Trimble County CWIP revenue refund.

**Expert Testimony Appearances
of
Richard A. Baudino
As of May 2007**

Date	Case	Jurisdict.	Party	Utility	Subject
4/94	E-015/ GR-94-001	MN	Large Power Intervenors	Minnesota Power Co.	Evaluation of the cost of equity, capital structure, and rate of return.
5/94	R-00942993	PA	PG&W Industrial Intervenors	Pennsylvania Gas & Water Co.	Analysis of recovery of transition costs.
5/94	R-00943001	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Evaluation of cost allocation, rate design, rate plan, and carrying charge proposals.
7/94	R-00942986	PA	Armco, Inc., West Penn Power Industrial Intervenors	West Penn Power Co.	Return on equity and rate of return.
7/94	94-0035- E-42T	WV	West Virginia Energy Users' Group	Monongahela Power Co.	Return on equity and rate of return.
8/94	8652	MD	Westvaco Corp.	Potomac Edison Co.	Return on equity and rate of return.
9/94	930357-C	AR	West Central Arkansas Gas Consumers	Arkansas Oklahoma Gas Corp.	Evaluation of transportation service.
9/94	U-19904	LA	Louisiana Public Service Commission	Gulf States Utilities	Return on equity.
9/94	8629	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Transition costs.
11/94	94-175-U	AR	Arkansas Gas Consumers	Arkla, Inc.	Cost-of-service, rate design, rate of return.
3/95	RP94-343- 000	FERC	Arkansas Gas Consumers	NorAm Gas Transmission	Rate of return.
4/95	R-00943271	PA	PP&L Industrial Customer Alliance	Pennsylvania Power & Light Co.	Return on equity.
6/95	U-10755	MI	Association of Businesses Advocating Tariff Equity	Consumers Power Co.	Revenue requirements.
7/95	8697	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Cost allocation and rate design.

**Expert Testimony Appearances
of
Richard A. Baudino
As of May 2007**

Date	Case	Jurisdct.	Party	Utility	Subject
8/95	95-254-TF U-2811	AR	Tyson Foods, Inc.	Southwest Arkansas Electric Cooperative	Refund allocation.
10/95	ER95-1042 -000	FERC	Louisiana Public Service Commission	Systems Energy Resources, Inc.	Return on Equity.
11/95	I-940032	PA	Industrial Energy Consumers of Pennsylvania	State-wide - all utilities	Investigation into Electric Power Competition.
5/96	96-030-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Revenue requirements, rate of return and cost of service.
7/96	8725	MD	Maryland Industrial Group	Baltimore Gas & Electric Co., Potomac Electric Power Co. and Constellation Energy Corp.	Return on Equity.
7/96	U-21496	LA	Louisiana Public Service Commission	Central Louisiana Electric Co.	Return on equity, rate of return.
9/96	U-22092	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
1/97	RP96-199- 000	FERC	The Industrial Gas Users Conference	Mississippi River Transmission Corp.	Revenue requirements, rate of return and cost of service.
3/97	96-420-U	AR	West Central Arkansas Gas Corp.	Arkansas Oklahoma Gas Corp.	Revenue requirements, rate of return, cost of service and rate design.
7/97	U-11220	MI	Association of Business Advocating Tariff Equity	Michigan Gas Co. and Southeastern Michigan Gas Co.	Transportation Balancing Provisions
7/97	R-00973944	PA	Pennsylvania American Water Large Users Group	Pennsylvania- American Water Co.	Rate of return, cost of service, revenue requirements.
3/98	8390-U	GA	Georgia Natural Gas Group and the Georgia Textile Manufacturers Assoc.	Atlanta Gas Light	Rate of return, restructuring issues, unbundling, rate design issues.

**Expert Testimony Appearances
of
Richard A. Baudino
As of May 2007**

Date	Case	Jurisdct.	Party	Utility	Subject
7/98	R-00984280	PA	PG Energy, Inc.	PGE Industrial Intervenors	Cost allocation.
8/98	U-17735	LA	Louisiana Public Service Commission	Cajun Electric Power Cooperative	Revenue requirements.
10/98	97-596	ME	Maine Office of the Public Advocate	Bangor Hydro- Electric Co.	Return on equity, rate of return.
10/98	U-23327	LA	Louisiana Public Service Commission	SWEPCO, CSW and AEP	Analysis of proposed merger.
12/98	98-577	ME	Maine Office of the Public Advocate	Maine Public Service Co.	Return on equity, rate of return.
12/98	U-23358	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity, rate of return.
3/99	98-426	KY	Kentucky Industrial Utility Customers, Inc.	Louisville Gas and Electric Co	Return on equity.
3/99	99-082	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Utilities Co.	Return on equity.
4/99	R-984554	PA	T. W. Phillips Users Group	T. W. Phillips Gas and Oil Co.	Allocation of purchased gas costs.
6/99	R-0099462	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Balancing charges.
10/99	U-24182	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Cost of debt.
10/99	R-00994782	PA	Peoples Industrial Intervenors	Peoples Natural Gas Co.	Restructuring issues.
10/99	R-00994781	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Restructuring, balancing charges, rate flexing, alternate fuel.
01/00	R-00994786	PA	UGI Industrial Intervenors	UGI Utilities, Inc.	Universal service costs, balancing, penalty charges, capacity assignment.

**Expert Testimony Appearances
of
Richard A. Baudino
As of May 2007**

Date	Case	Jurisdct.	Party	Utility	Subject
01/00	8829	MD	Maryland Industrial Gr. & United States	Baltimore Gas & Electric Co.	Revenue requirements, cost allocation, rate design.
02/00	R-00994788	PA	Penn Fuel Transportation	PFG Gas, Inc., and	Tariff charges, balancing provisions.
05/00	U-17735	LA	Louisiana Public Service Comm.	Louisiana Electric Cooperative	Rate restructuring.
07/00	2000-080	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric Co.	Cost allocation.
07/00	U-21453 (SC), U-20925 (SC), U-22092 (SC) (Subdocket E)	LA	Louisiana Public Service Comm.	Southwestern Electric Power Co.	Stranded cost analysis.
09/00	R-00005654	PA	Philadelphia Industrial And Commercial Gas Users Group.	Philadelphia Gas Works	Interim relief analysis.
10/00	U-21453 (SC), U-20925 (SC), U-22092 (SC) (Subdocket B)	LA	Louisiana Public Service Comm.	Entergy Gulf States, Inc.	Restructuring, Business Separation Plan.
11/00	R-00005277 (Rebuttal)	PA	Penn Fuel Transportation Customers	PFG Gas, Inc. and North Penn Gas Co.	Cost allocation issues.
12/00	U-24993	LA	Louisiana Public Service Comm.	Entergy Gulf States, Inc.	Return on equity.
03/01	U-22092	LA	Louisiana Public Service Comm.	Entergy Gulf States, Inc.	Stranded cost analysis.
04/01	U-21453 (SC), U-20925 (SC), U-22092 (SC) (Subdocket B) (Addressing Contested Issues)	LA	Louisiana Public Service Comm.	Entergy Gulf States, Inc.	Restructuring issues.
04/01	R-00006042	PA	Philadelphia Industrial and Commercial Gas Users Group	Philadelphia Gas Works	Revenue requirements, cost allocation and tariff issues.
11/01	U-25687	LA	Louisiana Public Service Comm.	Entergy Gulf States, Inc.	Return on equity.

**Expert Testimony Appearances
of
Richard A. Baudino
As of May 2007**

Date	Case	Jurisdict.	Party	Utility	Subject
03/02	14311-U	GA	Georgia Public Service Commission	Atlanta Gas Light	Capital structure.
08/02	2002-00145	KY	Kentucky Industrial Utility Customers	Columbia Gas of Kentucky	Revenue requirements.
09/02	M-00021612	PA	Philadelphia Industrial And Commercial Gas Users Group	Philadelphia Gas Works	Transportation rates, terms, and conditions.
01/03	2002-00169	KY	Kentucky Industrial Utility Customers	Kentucky Power	Return on equity.
02/03	02S-594E	CO	Cripple Creek & Victor Gold Mining Company	Aquila Networks – WPC	Return on equity.
04/03	U-26527	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
10/03	CV020495AB	GA	The Landings Assn., Inc.	Utilities Inc. of GA	Revenue requirement & overcharge refund
03/04	2003-00433	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric	Return on equity, Cost allocation & rate design
03/04	2003-00434	KY	Kentucky Industrial Utility Customers	Kentucky Utilities	Return on equity
4/04	04S-035E	CO	Cripple Creek & Victor Gold Mining Company, Goodrich Corp., Holcim (U.S.) Inc., and The Trane Co.	Aquila Networks – WPC	Return on equity.
9/04	U-23327, Subdocket B	LA	Louisiana Public Service Commission	Southwestern Electric Power Company	Fuel cost review
10/04	U-23327 Subdocket A	LA	Louisiana Public Service Commission	Southwestern Electric Power Company	Return on Equity

**Expert Testimony Appearances
of
Richard A. Baudino
As of May 2007**

Date	Case	Jurisdiction	Party	Utility	Subject
06/05	050045-EI	FL	South Florida Hospital and HealthCare Assoc.	Florida Power & Light Co.	Review Requirements, Rate Design, Cost Allocation.
08/05	9036	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Revenue requirement, cost allocation, rate design, Tariff issues.
01/06	2005-0034	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Power Co.	Return on equity.
03/06	05-1278-E-PC-PW-42T	WV	West Virginia Energy Users Group	Appalachian Power Company	Return on equity.
04/06	U-25116	LA	Louisiana Public Service Commission	Entergy Louisiana, LLC	Transmission Issues
07/06	U-2327	LA	Louisiana Public Service Commission	Southwestern Electric Power Company	Return on equity.
08/06	ER-2006-0314	MO	Missouri Office of the Public Counsel	Kansas City Power & Light Co.	Return on equity, Weighted cost of capital
08/06	06S-234EG	CO	CF&I Steel, L.P. & Climax Molybdenum	Public Service Company of Colorado	Return on equity, Weighted cost of capital
01/07	06-0960-E-42T WV		West Virginia Energy Users Group	Monongahela Power & Potomac Edison	Return on Equity
01/07	43112		AK Steel, Inc.	Vectren South, Inc.	Cost allocation, rate design
05/07	2006-661		Maine Office of the Public Advocate	Bangor Hydro-Electric	Cost of equity, weighted cost of capital.

Exhibit ____ (RAB-2)

COLUMBIA GAS OF KENTUCKY, INC.

**DELIVERY SERVICE (DS)
 TRANSPORTATION SERVICE RATE SCHEDULE**

APPLICABILITY

Entire service territory of Company. See Sheet No. 8 for a list of communities.

AVAILABILITY

This rate schedule is available to any Customer throughout the territory served by Company provided:

- (1) ~~Customer has executed a contract with Company for Delivery Service Agreement with Company, and~~]
- (2) Customer has normal annual requirements of not less than 25,000 Mcf at any delivery point, and
- (3) Company will not be required to deliver on any day more than the lesser of (i) a quantity of gas equivalent to Customer's Maximum Daily Volume specified in its Delivery Service Agreement; (ii) the quantity of gas scheduled and confirmed to be delivered into the Company's distribution facilities on behalf of the Customer on that day plus applicable Standby Sales; or (iii) the Customer's Authorized Daily Volume. and N
- (4) On an annual basis, a Customers Maximum Daily Volume and Annual Transportation Volume will be automatically adjusted to the Customers actual Maximum Daily Volume and actual Annual Transportation Volume based on the Customers highest daily and annual volumetric consumption experienced during the preceding 12-month periods ending with March billings. Upon a Customers request, the Company shall have the discretion to further adjust a Customers Maximum Daily Volume and Annual Transportation Volume for good cause shown. N

~~(3) Customer currently is a sales Customer under the GS, IS or IUS Rate Schedule.~~ D

Customers Grandfathered ("GDS")

This rate schedule is also available to customers with normal annual requirements of less than 25,000 Mcf but not less than 6,000 Mcf, at any delivery point taking service under a contract with Company for delivery service executed prior to April 1, 1999.

Intrastate Utility ("IUSD") – This rate schedule is also available to intrastate utilities for transportation and consumption solely within the Commonwealth of Kentucky. T

BASE RATE

Administrative Charge per account per billing period	55.90
Customer Charge per billing period ¹⁷	200.00
Customer Charge per billing period (GDS only)	28.00
Customer Charge per billing period (IUSD only)	255.00
Delivery Charge per Mcf ¹⁷ -	
General Service: _____	

] N N D T N I N

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Vice President

Issued by authority of an Order of the Public Service Commission in Case No. 2002-00145 dated December 13, 2002

COLUMBIA GAS OF KENTUCKY, INC.

First 400 Mcf	\$1.8153 per Mcf for all gas delivered each billing month.
Next 600 Mcf	\$1.7296 per Mcf for all gas delivered each billing month.
Over 1,000 Mcf	\$1.5902 per Mcf for all gas delivered each billing month.
Interruptible Service:	
First 30,000 Mcf	\$0.5467-6027 per Mcf for all gas delivered each billing month.
Over 30,000 Mcf	\$0.2905-3192 per Mcf for all gas delivered each billing month.
- Grandfathered Delivery Service	
First 400 Mcf per billing period	1.7142
Next 600 Mcf per billing period	1.6324
All Over 1000 Mcf per billing period	1.4806
- Intrastate Utility Delivery Service	
- All volumes per billing period:	\$0.3038-5905 per Mcf for all gas delivered each billing month.
Former IN8:	\$1.0575 per Mcf for all gas delivered each billing month.

ADMINISTRATIVE CHARGE

~~The monthly administrative charge shall be \$55.00.~~

Banking and Balancing Service ^{1/}

Rate per Mcf 0.0206

GAS COST ADJUSTMENT

~~Recovery of Direct Bill Take-or-Pay~~

~~Delivery service Customers shall be subject to a Gas Cost Adjustment as shown on Sheet Nos. 5 and 6.~~

RIDER FOR NATURAL GAS RESEARCH & DEVELOPMENT

Volumes delivered to customers under this rate schedule are subject to a Rider for Natural Gas Research and Development as stated on Sheet No. 51c.

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DATE EFFECTIVE: March 1, 2003

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Vice President

Issued by authority of an Order of the Public Service Commission in Case No. 2002-00145 dated December 13, 2002

COLUMBIA GAS OF KENTUCKY, INC.

**MAIN LINE DELIVERY SERVICE (MLDS)
RATE SCHEDULE**

APPLICABILITY

Entire service territory of Company. See Sheet No. 8 for a list of communities.

AVAILABILITY

This rate schedule is available to any Customer throughout the territory served by Company provided:

- (1) Customer has executed a ~~contract~~ Delivery Service Agreement with Company ~~for delivery service,~~ and
- (2) Customer has normal annual requirements of not less than 25,000 Mcf at any delivery point, and
- (3) Customer is connected directly through a dual-purpose meter to facilities of an interstate pipeline supplier of Company, and

~~(4) Customer currently is a sales Customer under the GS or IS Rate Schedule. Company will not be required to deliver on any day more than the lesser of: (i) a quantity of gas equivalent to Customer's Maximum Daily Volume specified in its Delivery Service Agreement; (ii) the quantity of gas scheduled and confirmed to be delivered into the Company's distribution facilities on behalf of the Customer on that day plus applicable Standby Sales; or (iii) the Customer's Authorized Daily Volume, and~~

(5) On an annual basis, a Customers Maximum Daily Volume and Annual Transportation Volume will be automatically adjusted to the Customers actual Maximum Daily Volume and actual Annual Transportation Volume based on the Customers highest daily and annual volumetric consumption experienced during the preceding 12-month periods ending with March billings. Upon a Customers request, the Company shall have the discretion to further adjust a Customers Maximum Daily Volume and Annual Transportation Volume for good cause shown.

RATE

The transportation rate shall be \$0.0858 per Mcf for all gas delivered each month.

ADMINISTRATIVE CHARGE

The monthly administrative charge shall be \$55.90 per account each billing period.

CUSTOMER CHARGE

The customer charge shall be \$200 per account each billing period.

GAS COST ADJUSTMENT

BANKING AND BALANCING SERVICE

The rate for the Banking and Balancing Service is set forth on Sheet No. 67. This rate represents the current storage cost to the Company to provide a 'bank tolerance' to the Customer of five percent (5%) of the Customer's Annual Transportation Volume. The calculation of the Banking and Balancing Service rate is set forth in the Company's Gas Cost Adjustment.

The Banking and Balancing Service rate is subject to flexing as provided in the Flex Provision of this rate schedule. Refer to Sheet No. 91, Volume-Banking and Balancing Service, for the terms and conditions of

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Vice-President

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Exhibit ____ (RAB-3)

COLUMBIA GAS OF KENTUCKY, INC.

**GENERAL TERMS, CONDITIONS, RULES AND REGULATIONS
APPLICABLE TO DELIVERY SERVICE RATE SCHEDULES ONLY**

(Continued)

3. INTERRUPTION

Notwithstanding the provisions of Section 2 herein, all deliveries by Company to Customer, including Customer's Authorized Daily Volumes, are subject to partial or complete interruption during force majeure situations, herein defined to mean acts of God, strikes, lockouts, or other labor disturbances, acts of a public enemy, war, blockages, insurrections, riots, epidemics, fire, storms, floods, washouts, civic disturbances, explosions, breakage or accidents to machinery or pipelines, freezing of wells or pipelines, partial or entire failure of such wells, or any other cause not otherwise provided for herein, whether of the kind herein enumerated or otherwise, not reasonably within the control of Company. All deliveries are also subject to complete or partial interruption whenever service to residential and other high priority Customers in the same local market area is threatened or to protect the integrity of Company's natural gas distribution system.

In addition, where a transportation Customer delivers gas to Company at a receipt point which is located in a local market area other than the local market area in which Customer's facilities are located, such delivery shall be considered a delivery by displacement. Company may interrupt deliveries by displacement, up to 100%, where such interruption is necessary to prevent Company from exceeding contractual limitations with its interstate pipeline suppliers, including, but not limited to, any Maximum Daily Delivery Obligation (MDDO), provided, however, that Company will use its best efforts to make deliveries by displacement, and provided, further, that Company will not interrupt deliveries by displacement pursuant to this paragraph unless

- (A) such interruption is necessary to enable Company to maintain deliveries to high priority Customers in the same local market area, or
- (B) Company's interstate pipeline supplier has directed Company to limit its deliveries to the applicable MDDO in order to enable the supplier to maintain firm deliveries on its pipeline system.

When Company interrupts deliveries pursuant to this section, Customer will pay Company \$25 per Mcf shall be liable to Company for all fines and penalties incurred by Company as a result of any failure by Customer to interrupt its usage when directed to do so plus all fines and penalties incurred by Company as a result of Customer's failure to interrupt.

4. SUSPENSION OF DELIVERIES DURING GAS SUPPLY EMERGENCIES

Refer to Sheet No. 57, Volumetric Limitations and Curtailment Provisions.

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~~Vice-President - Regulatory Services~~

COLUMBIA GAS OF KENTUCKY, INC.

**GENERAL TERMS, CONDITIONS, RULES AND REGULATIONS
APPLICABLE TO DELIVERY SERVICE RATE SCHEDULES ONLY
(Continued)**

5. VOLUME BANKING AND BALANCING SERVICE

A. Election Customers must subscribe to the Banking and Balancing Service set forth on Sheet Nos. ~~39, 40 and 41~~ Rate Schedule DS and MLDS to be eligible for the provisions of this Volume Bank ~~section service~~ described herein. Customers without daily demand-reading-metering equipment must subscribe to the Banking and Balancing Service. Daily usage and measurement can be obtained from an electronic meter device, or a charted meter device.

B. Cash-Out Customers who have installed daily demand-reading-metering equipment and who choose not to subscribe to the Banking and Balancing Service will be placed on a daily cash-out provision, defined as follows. On days when Customer's deliveries are less than their usage, the Company will sell gas to the Customer at the ~~Customer's applicable sales rate schedule~~ current month's average indexed price, as reported in PLATTS Gas Daily in the monthly report titled "Prices of Spot of Gas Delivered to Pipelines", under the column heading "Index" for "Columbia Gas Transmissions Corp., Appalachia", adjusted for Columbia Gas Transmission Corporation's FTS Retainage and commodity charges, times 120%. On days when Customer's deliveries are greater than their usage, Company may, at its option, purchase the excess deliveries at ~~Company's Weighted Average Commodity Cost of Gas (WACCOG)~~ the current month's average indexed price, as reported in PLATTS Gas Daily in the monthly report titled "Prices of Spot of Gas Delivered to Pipelines", under the column heading "Index" for "Columbia Gas Transmissions Corp., Appalachia", adjusted for Columbia Gas Transmission Corporation's FTS Retainage and commodity charges, times 80%.

C. Volume Bank Under the Banking and Balancing Service, Company has established a system to account for Customer's volumes received by Company but not delivered to Customer at its facilities during the same monthly billing cycle. Such undelivered volumes shall be called a volume bank and Customer shall be permitted to receive such banked volumes at a later date at Company's discretion.

Customer will use its best effort to notify Company of a planned or expected significant change in its volume bank level before that change occurs. Customer may not utilize banked volumes during any period in which a consumption limitation or interruption has been imposed pursuant to Section 3 herein. The availability of Banking and Balancing Service under this Section is contingent upon the policies, practices, and procedures of Company's interstate pipeline suppliers. Company reserves the right to request Commission approval to modify the banking system, if the policies, practices, procedures of one or more of such interstate pipeline suppliers make it impracticable for Company to continue the Banking and Balancing Service system established herein.

D. Imbalances The total volume bank of Customer shall not at any time exceed a 'bank tolerance' of five percent (5%) of Customer's Annual Transportation Volume. If, at any time, Customer's volume bank exceeds the bank tolerance, Company ~~may~~ will purchase the excess deliveries at the current month's average indexed price, as reported in PLATTS Gas Daily in the monthly report titled "Prices of Spot of Gas Delivered to Pipelines", under the column heading "Index" for "Columbia Gas Transmission Corp., Appalachia", adjusted for Columbia Gas Transmission Corporation's FTS Retainage and commodity charges, times 80%. In addition, if the Customer's exceeded bank tolerance causes the Company to incur a storage overrun penalty, Customer is subject their proportionate share of any pipeline penalty.

~~require Customer to immediately reduce or stop deliveries until its volume bank of gas is equal to or less~~

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Vice President - Regulatory Services

COLUMBIA GAS OF KENTUCKY, INC.

~~than the bank tolerance. In addition, if Customer's deliveries to Columbia on any day vary significantly from Customer's consumption on that day, Columbia may require Customer to immediately bring Customer's deliveries and consumption into balance.~~

~~Any volumes of gas that are delivered by Company to Customer in any monthly billing cycle that are in excess of: (A) Customer's volume bank from the previous month, plus (B) any volumes delivered to Company by Customer for that billing cycle, plus (C) any Standby Service volumes available to Customer, shall be considered a deficiency in deliveries. All deficiencies in deliveries to Columbia will be billed to the Customer at the current month's average indexed price, as reported in PLATTS Gas Daily in the monthly report titled "Prices of Spot of Gas Delivered to Pipelines", under the column heading "Index" for "Columbia Gas Transmission Corp., Appalachia", adjusted for Columbia Gas Transmission Corporation's FTS Retainage and commodity charges, times 120%.~~

~~In either case, Company may also, on its own initiative, take such actions as are necessary to (1) immediately bring Customer's deliveries and consumption into balance or (2) reduce Customer's volume bank to a level which is equal or less than the bank tolerance permitted under this section. The Company further reserves the right to set limitations prior to, or during the course of a month, on how much gas can be scheduled by the Customer in an effort to control Customer's banking activity.~~

~~E. Balancing Service Interruption ("BSI") Customers without Daily Metering are subject to Columbia's issuance of Balancing Service Interruptions (BSIs) that will direct Customers or their Agent to schedule confirmed supply volumes to match Columbia's estimate of their daily usage adjusted for contracted standby sales quantities and/or any balancing service quantities that may be available from Columbia. Columbia shall provide a BSI percentage and direct Customers or their Agents to schedule confirmed supply volume equal to plus or minus 3% of the BSI percentage times the Customers' Maximum Daily Volume (MDV). This is referred to as the BSI volume. Balancing Service Interruptions may require the scheduling of a BSI volume in excess of Customers' MDV when forecasted operating conditions exceed the Company's design criteria. Failure to comply with a BSI will result in the billing of the charges below assessed against the BSI difference. The BSI difference is defined as the shortfall between the BSI volume and actual daily supply deliveries during a cold weather BSI, and the overage between the BSI volume and the actual daily supply deliveries during a warm weather BSI.~~

~~(A) Twenty-five dollars (\$25) Mcf times the BSI difference; and~~

~~(B) The payment of all other charges incurred by Columbia as a result of Customer noncompliance on the date of the BSI difference.~~

~~Customers with Daily Metering are subject to Columbia's issuance of BSIs that will direct Customers or their Agents to adjust usage to match confirmed supply volumes or adjust confirmed supply to match usage adjusted for contracted standby sales quantities and/or balancing services quantities available from the Company. Failure to comply with a BSI will result in the billing of the following charges to the BSI difference, which is defined as the difference between the actual daily usage and the confirmed supply volume, plus or minus 3%:~~

~~(A) Twenty-five dollars (\$25) Mcf times the BSI difference; and~~

~~(B) The payment of all other charges incurred by Columbia as a result of Customer noncompliance on the date of the BSI difference.~~

~~F. Monthly Bank Transfers Monthly bank transfers will be permitted between one Customer/Agent ("transferor") and another Customer/Agent ("transferee") located within the same Columbia Gas~~

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COLUMBIA GAS OF KENTUCKY, INC.

~~Transmission Market Area and having confirmed deliveries on the same transmission pipeline. Transfers may also be permitted, solely at the discretion of the Company, between a transferor and a transferee located in different Columbia Gas Transmission Market Areas and having confirmed deliveries on the same transmission pipeline. All such transfers may only be requested once a month to be effective for the upcoming billing cycle and must be requested within three (3) business days after the conclusion of the Customers' monthly billing cycle.~~

~~In the event Customer's volume bank exceeds the five percent (5%) bank tolerance, Customer is subject to the FSS and SST overrun charges of the Columbia Gas Transmission Corporation. In addition, if the Customer's exceeded bank tolerance causes the Company to incur a storage overrun penalty, Customer is subject to the penalty.~~

~~G. Termination of Service In the event service hereunder is terminated, Company will deliver to Customer volumes of Customer's gas which Company is holding pursuant to this Volume Bank section during the three monthly billing cycles following the date of termination. However, should Customer fail to take~~

~~(T) Change in Text~~

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Vice-President - Regulatory Services

COLUMBIA GAS OF KENTUCKY, INC.

**GENERAL TERMS, CONDITIONS, RULES AND REGULATIONS
APPLICABLE TO DELIVERY SERVICE RATE SCHEDULES ONLY
(Continued)**

Company may also, on its own initiative, take such actions as are necessary to (1) immediately bring Customer's deliveries and consumption into balance or (2) reduce Customer's volume bank to a level which is equal or less than the bank tolerance permitted under this section. The Company further reserves the right to set limitations prior to, or during the course of a month, on how much gas can be scheduled by the Customer in an effort to control Customer's banking activity.

E. Balancing Service Interruption ("BSI"). Customers without Daily Metering are subject to Columbia's issuance of Balancing Service Interruptions (BSIs) that will direct Customers or their Agent to schedule confirmed supply volumes to match Columbia's estimate of their daily usage adjusted for contracted standby sales quantities and/or any balancing service quantities that may be available from Columbia. Columbia shall provide a BSI percentage and direct Customers or their Agents to schedule confirmed supply volume equal to plus or minus 3% of the BSI percentage times the Customers' Maximum Daily Volume (MDV). This is referred to as the BSI volume. Balancing Service Interruptions may require the scheduling of a BSI volume in excess of Customers' MDV when forecasted operating conditions exceed the Company's design criteria. Failure to comply with a BSI will result in the billing of the charges below assessed against the BSI difference. The BSI difference is defined as the shortfall between the BSI volume and actual daily supply deliveries during a cold weather BSI, and the overage between the BSI volume and the actual daily supply deliveries during a warm weather BSI.

- (A) Twenty-five dollars (\$25) Mcf times the BSI difference; and
- (B) The payment of all other charges incurred by Columbia as a result of Customer noncompliance on the date of the BSI difference.

Customers with Daily Metering are subject to Columbia's issuance of BSIs that will direct Customers or their Agents to adjust usage to match confirmed supply volumes or adjust confirmed supply to match usage adjusted for contracted standby sales quantities and/or balancing services quantities available from the Company. Failure to comply with a BSI will result in the billing of the following charges to the BSI difference, which is defined as the difference between the actual daily usage and the confirmed supply volume, plus or minus 3%:

- (A) Twenty-five dollars (\$25) Mcf times the BSI difference; and
- (B) The payment of all other charges incurred by Columbia as a result of Customer noncompliance on the date of the BSI difference.

F. Monthly Bank Transfers. Monthly bank transfers will be permitted between one Customer/Agent ("transferor") and another Customer/Agent ("transferee") located within the same Columbia Gas Transmission Market Area and having confirmed deliveries on the same transmission pipeline. Transfers may also be permitted, solely at the discretion of the Company, between a transferor and a transferee located in different Columbia Gas Transmission Market Areas and having confirmed deliveries on the same transmission pipeline. All such transfers may only be requested once a month to be effective for the upcoming billing cycle and must be requested within three (3) business days after the conclusion of the Customers' monthly billing cycle.

G. Termination of Service. In the event service hereunder is terminated, Company will deliver to Customer volumes of Customer's gas which Company is holding pursuant to this Volume Bank section during the three monthly billing cycles following the date of termination. However, should Customer fail to take

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Vice-President --Regulatory Services

COLUMBIA GAS OF KENTUCKY, INC.

—delivery of its entire Volume Bank within the three-month period, Company may, at its option, retain and purchase the undelivered banked volumes. In addition, if Customer owes Company any outstanding gas transportation charges, or other charges which are due, Company may, at its option, offset said unpaid charges by retaining as necessary, banked volumes that would have otherwise been delivered to Customer upon termination of service. The value assigned to such retained bank volumes which are purchased or retained will be the cost of Company's least expensive gas supply at the time the gas was delivered to Company.

67. HEAT CONTENT ADJUSTMENT

When Company receives Customer's gas from an interstate pipeline on a dekatherm (one million Btu) basis, Company will make a heat content adjustment in accordance with the procedures set forth below in order to deliver to Customer volumes of gas, in Mcf, equal in heat content to the gas delivered to Company for the account of Customer. The average monthly heating value of gas measured and calculated by the pipeline which delivers Customer's gas to Company will be used each billing month to establish the heating value of the gas delivered by Company to Customer. However, if locally produced gas or gas from pipelines other than the delivering pipeline is introduced into Company's pipeline serving Customer's facilities, so as to raise a question as to the applicability of the heating value determined by the delivering pipeline, either

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Exhibit ____ (RAB-4)

COLUMBIA GAS OF KENTUCKY, INC.

FORM OF DELIVERY SERVICE AGREEMENT
FOR DELIVERY SERVICE (DS AND MLDS)
RATE SCHEDULES

Customer's Legal
Corporate Name: _____

Customer DBA: _____

Customer Group: (Name): _____ (Number) _____

Billing Address: _____
_____ Street _____ City _____ State _____ Zip

Telephone No. _____ Contact Person/Title _____

THIS AGREEMENT, made and entered into as of the ____ day of _____, 2019, by and between COLUMBIA GAS OF KENTUCKY, INC., ("Company/Columbia") and _____ ("Customer").

WITNESSETH: That in consideration of the mutual covenants herein contained, the parties hereto agree as follows:

SECTION 1. TRANSPORTATION SERVICE TO BE RENDERED. In accordance with the provisions of the effective applicable transportation rate schedule of Company's Tariff, on file with the Public Service Commission of Kentucky and the terms and conditions herein contained. Company shall receive the quantities of gas requested by Customer to be transported and shall redeliver said gas to Customer's facilities. the point(s) of receipt, Customer facility location, the applicable Rate Schedule, and the service and levels of said services to be rendered, shall be set forth in Delivery Service Addendum Section 7 of this Agreement.

SECTION 2. INCORPORATION OF TARIFF PROVISIONS. This Agreement in all respects shall be subject to the Company's Terms, Conditions, Rules and Regulations as contained in the tariff, as the same may be amended or superseded from time to time, which are incorporated herein by reference and made a part hereof.

SECTION 3. INTERRUPTION. Notwithstanding the provisions of Section 2 hereof, or any other provisions of Columbia's Tariff to the contrary, service under this agreement is conditioned upon the availability of capacity sufficient to provide the service without detriment or disadvantage to Columbia's existing customers, or any subsequent new higher priority customers. Therefore, Columbia, in its sole discretion, may interrupt deliveries of gas to Customer at any time

SECTION 43. REGULATION. This Agreement is contingent upon the receipt and continuation of all necessary regulatory approvals and authorizations. This Agreement shall become void or expire, as appropriate, if any necessary regulatory approval or authorization is not so received or continued.

SECTION 54. TERM. This Agreement shall become effective as of the first day of Customer's next billing cycle following its execution and shall continue in effect thereafter for a minimum primary term of twelve (12) months, until October 31, 20____, and thereafter from year to year unless and until canceled by either

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COLUMBIA GAS OF KENTUCKY, INC.

~~Customer or Company giving written notice to the other no later than April 1, to become effective on November 1 of such year through the last day of Customer's October billing cycle, provided however, that the Agreement shall continue in effect after that date on a year to year basis with each term ending on the last day of Customer's October billing cycle. Either party may terminate this Agreement upon written notice thirty (30) days prior to each successive anniversary date hereof.~~

SECTION 65. NOTICES. Any notices, except those relating to billing or interruption of service, required or permitted to be given hereunder shall be effective only if delivered personally to an officer or authorized representative of the party being notified, or if mailed by certified mail to the address provided in the Delivery Service Addendum ~~Section 7~~ of this Agreement.

SECTION 76. CANCELLATION OF PRIOR AGREEMENTS. This Agreement supersedes and cancels, as of the effective date hereof, all previous two party transportation agreements between the parties for service to Customer's facilities served hereunder.

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