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PUBLIC SERVICE COMMISSION

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 1

Please provide trial balances as of 9/30/06 and 12/31/06. These trial balances should show detailed balance sheet FERC accounts and sub-accounts as of 9/30/06 and 12/31/06, as well as detailed income statement (revenues, expenses, taxes) FERC accounts and sub-accounts for the 12-months ended 9/30/06 and 12/31/06.

Response of Columbia Gas of Kentucky:

A trial balance for each month, 9/30-12/31/2006 is being supplied to the Attorney General. A trial balance for each month, 9/30-12/31/2006 is being supplied to the Commission on a CD.

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 2

In the same format and detail as shown on Schedule C-2.1, column (1) ["unadjusted total utility"], please provide schedules showing a side-by-side comparison of the actual "Operating Revenues and Expenses by Accounts" for calendar year 2006 and for the 4 years prior to the test year (note: if actual annual data for the 12-month periods ending 9/30/05, 9/30/04, 9/30/03 and 9/30/02 are not readily available, please provide actual annual data for calendar years 2005, 2004, 2003 and 2002).

Response of Columbia Gas of Kentucky:

Please refer to 2007-00008 AG Set 1-002 Attachment 1 for the requested information.

COLUMBIA GAS OF KENTUCKY, INC.
CASE NO. 2007-00008
OPERATING REVENUE AND EXPENSES BY ACCOUNTS - JURISDICTION
FOR THE HISTORIC PERIODS 12 MONTHS ENDED DECEMBER, 31, 2002, 2003, 2004, 2005, 2006

LINE NO.	ACCOUNT NO. (S)	ACCOUNT TITLE	December 31, 2006	2005	2004	2003	2002
1		OPERATING REVENUE					
2		SALES OF GAS					
3	480	RESIDENTIAL	85,805,648	96,749,746	83,011,215	76,651,532	54,239,996
4	481.1	COMMERCIAL	50,852,431	47,260,286	38,604,900	36,576,390	25,131,472
5	481.2	INDUSTRIAL	2,934,268	3,668,819	2,355,940	3,908,211	1,865,155
6	481.9	OTHER	258,844	209,009	186,736	166,907	123,268
7		TOTAL SALES OF GAS	139,851,191	147,887,860	124,158,791	117,303,040	81,359,891
8		OTHER OPERATING INCOME					
9	487	FORFEITED DISCOUNTS	416,218	252,465	318,994	265,957	207,373
10	488	MISC. SERVICE REVENUES	155,598	124,769	146,781	110,567	94,994
11	489	REVENUE FROM TRANSPORTATION OF GAS OF OTHERS	14,622,742	19,385,855	22,942,993	23,332,670	30,099,950
12	495	OTHER GAS REVENUES (MISC./OFF SYSTEM SALES)	9,426,880	2,245,371	4,978,765	4,929,713	16,970,508
		TOTAL OTHER OPERATING INCOME	24,621,438	22,008,460	28,387,533	28,638,907	47,372,825
13		TOTAL OPERATING REVENUE	164,472,629	169,896,320	152,546,324	145,941,947	128,732,716
14		OPERATING EXPENSES					
15		LIQUEFIED PETROLEUM GAS PRODUCTION EXPENSE					
16	717	LIQUEFIED PETROLEUM GAS EXPENSE	903	1,482	1,299	1,476	1,228
17	723	FUEL FOR LIQUEFIED PETROLEUM GAS PROCESS	0	0	0	0	0
18	728	LIQUEFIED PETROLEUM GAS	0	0	0	0	0
19	741	STRUCTURES & IMPROVEMENTS	0	0	0	0	0
20	742	PRODUCTION EQUIPMENT	17	11	0	0	0
21		TOTAL LIQUEFIED PETROLEUM GAS PRODUCTION EXPENSE	920	1,493	1,299	1,476	1,228
[illegible]		OPERATION AND MAINTENANCE EXPENSE ACCOUNTS					
		OTHER GAS SUPPLY EXPENSES - OPERATION					
[illegible]	801-803	NATURAL GAS FIELD & TRANSMISSION LINE PURCHASES	98,859,870	121,459,667	93,466,705	116,676,609	48,211,228
25	804	NATURAL GAS CITY GATE PURCHASES	4,065,213	18,843,019	2,667,838	2,488,043	648,631
26	805	OTHER GAS PURCHASES	27,010,321	(5,550,558)	5,699,333	(12,887,786)	(420,892)
27	806	EXCHANGE GAS	(15,389,496)	28,821,266	2,786,219	(15,145,731)	15,892,112
28	807	PURCHASED GAS EXPENSE	25,983	24,739	22,514	22,363	21,488
29	808	GAS WITHDRAWN FROM STORAGE	3,643,169	(42,597,700)	(911,903)	2,056,447	8,382,224
30	812	GAS USED FOR OTHER UTILITY OPERATIONS	(101,773)	(258,115)	(112,575)	(124,500)	(85,524)
31	813	EXCHANGE FEES	0	16,558	674	1,109	68,111
32		TOTAL OTHER GAS SUPPLY EXPENSES - OPERATION	118,113,287	120,758,876	103,618,805	93,086,554	72,717,378
33		DISTRIBUTION EXPENSES - OPERATION					
34	870	SUPERVISION AND ENGINEERING	224,219	329,434	293,381	348,479	513,962
35	871	DISTRIBUTION LOAD DISPATCHING	26,566	12,868	38,718	136,136	113,700
36	874	MAINS AND SERVICES EXPENSES	1,703,056	1,596,036	1,434,614	1,506,677	2,849,862
37	875	MEASURING AND REGULATION STA. EXPENSE - GEN.	180,486	171,201	174,245	154,305	132,148
38	876	MEASURING AND REGULATION STA. EXPENSE - IND.	35,452	33,981	37,915	59,023	62,582
39	877	MEASURING AND REGULATION STA. EXP. - CITY GATE	0	0	0	0	0
40	878	METERS AND HOUSE REGULATOR EXPENSE	1,513,797	1,433,982	1,463,583	1,345,674	1,435,269
41	879	CUSTOMER INSTALLATIONS EXPENSE	1,056,275	1,080,479	1,137,339	1,033,733	1,156,802
42	880	OTHER EXPENSE	1,525,710	1,767,937	1,606,735	1,514,792	1,630,670
43	881	TELECOMMUNICATION EXPENSE - ENGINEERING	119,243	118,261	112,645	118,471	116,868
44		TOTAL DISTRIBUTION EXPENSES - OPERATION	6,384,804	6,544,179	6,299,175	6,219,290	8,011,863
45		DISTRIBUTION EXPENSES - MAINTENANCE					
46	885	SUPERVISION AND ENGINEERING	154,548	149,122	166,845	135,394	207,980
47	886	STRUCTURES AND IMPROVEMENTS	111,178	93,823	92,015	97,349	123,851
48	887	MAINS	1,258,778	966,354	952,910	1,194,397	1,081,668
49	889	MEASURING AND REGULATION STA. EXPENSE - GEN.	139,890	123,016	124,121	126,127	219,866
50	890	MEASURING AND REGULATION STA. EXPENSE - IND.	98,971	117,556	122,951	49,037	57,941
51	891	MEASURING AND REGULATION STA. EXP. - CITY GATE	0	0	0	0	0
52	892	SERVICES	343,173	298,312	287,957	355,998	421,643
53	893	METERS AND HOUSE REGULATORS	139,405	146,823	155,200	268,136	333,187
54	894	OTHER EQUIPMENT	104,663	142,863	156,435	151,958	213,446
[illegible]		TOTAL DISTRIBUTION EXPENSES - MAINTENANCE	2,350,606	2,037,869	2,058,434	2,378,396	2,659,582

COLUMBIA GAS OF KENTUCKY, INC.
CASE NO. 2007-00008
OPERATING REVENUE AND EXPENSES BY ACCOUNTS - JURISDICTION
FOR THE HISTORIC PERIOD 12 MONTHS ENDED SEPTEMBER 30, 2006

LINE NO.	ACCOUNT NO. (S)	ACCOUNT TITLE	December 31, 2006	2005	2004	2003	2002
		CUSTOMER ACCOUNTS EXPENSES - OPERATION					
56	901	SUPERVISION	6,460	8,218	9,981	39,507	95,445
57	902	METER READING EXPENSES	1,107,953	1,008,769	951,541	952,536	924,493
58	903	CUSTOMER RECORDS & COLLECTIONS - UTILITY SERVICES	1,284,044	2,214,269	2,758,061	2,582,090	2,787,454
59	904	UNCOLLECTIBLE ACCOUNTS	1,594,285	1,499,299	1,981,712	1,429,847	117,923
60	905	MISCELLANEOUS CUSTOMER ACCOUNT EXPENSES	4,837	11,267	11,931	29,627	72,573
61	921	OFFICE SUPPLIES AND EXPENSES	301	928	356	377	255
62	931	RENTS	0	0	0	0	
63	935	MAINTENANCE OF GENERAL PLANT	157	896	2,093	664	432
64		TOTAL CUSTOMER ACCOUNTS EXPENSE	3,998,037	4,743,646	5,715,675	5,034,648	3,998,575
65		CUSTOMER SERVICE & INFORMATION - OPERATION					
66	907	SUPERVISION	31,927	38,601	40,301	82,574	150,789
67	908	CUSTOMER ASSISTANCE EXPENSES	142,617	111,622	99,217	(8,586)	337,213
68	909	INFORMATIONAL AND INSTR. ADVERT. EXPENSES	0	0	0	0	0
69	910	MISCELLANEOUS CUSTOMER ACCOUNT EXPENSE	46	1,292	1,869	4,529	17,990
70	921	OFFICE SUPPLIES AND EXPENSES	4,135	12,796	4,908	5,175	3,508
71	931	RENTS	0	0	0	0	0
72	935	MAINTENANCE OF GENERAL PLANT	15	468	720	2,156	565
73		TOTAL CUSTOMER ACCOUNTS EXPENSES - OPERATION	178,740	164,779	147,015	85,848	510,065
74		SALES EXPENSES					
75	911	SUPERVISION	0	0	0	0	0
76	912	DEMONSTRATING AND SELLING EXPENSES	0	1,503	5,000	1,544	34,122
77	913	ADVERTISING EXPENSE	0	0	0	0	31,231
78	916	MISCELLANEOUS SALES EXPENSE	0	0	0	0	0
79		TOTAL SALES EXPENSES	0	1,503	5,000	1,544	65,353
		ADMINISTRATIVE AND GENERAL EXPENSES - OPERATION					
81	920	ADMINISTRATIVE AND GENERAL SALARIES	528,569	1,000,348	596,347	237,896	443,022
82	921	OFFICE SUPPLIES AND EXPENSES	262,257	322,004	426,533	486,250	588,570
83	922	ADMINISTRATIVE EXPENSE TRANSFERRED	1	0	26	(26,451)	(31,018)
84	923	OUTSIDE SERVICES EMPLOYED	9,891,691	9,510,420	7,455,068	6,976,488	5,617,882
85	924	PROPERTY INSURANCE PREMIUMS	197,469	147,613	211,619	174,917	196,035
86	925	INJURIES AND DAMAGES	831,047	484,384	537,960	534,244	154,163
87	926	EMPLOYEE PENSIONS AND BENEFITS	1,804,253	2,812,839	2,860,783	2,727,584	2,554,796
88	927	UTILITY AND FUEL	0	0	0	0	0
89	928	REGULATORY COMMISSION EXPENSE	281,552	361,925	340,590	342,314	293,932
90	929	DUPLICATE CHARGES	0	0	0	0	0
91	930	GENERAL MISCELLANEOUS GENERAL	37,457	32,414	13,389	53,842	83,280
92	931	RENTS	(375,322)	2,326	0	0	47,406
93		TOTAL ADMINISTRATIVE AND GENERAL EXP. - OPERATION	13,458,974	14,674,273	12,442,315	11,507,084	9,948,068
94		ADMINISTRATIVE AND GENERAL EXPENSES - MAINTENANCE					
95	935	MAINTENANCE OF GENERAL PLANT	225	225	303	370	387
96		TOTAL ADMINISTRATIVE AND GEN. EXP. - MAINTENANCE	225	225	303	370	387
97		TOTAL OPERATION AND MAINTENANCE EXPENSE ACCOUNTS	144,485,593	148,926,843	130,288,021	118,315,210	97,912,499
98	403-404	DEPRECIATION AND AMORTIZATION	5,337,146	5,224,802	5,094,251	5,733,776	8,677,648
99	408	TAXES OTHER THAN INCOME TAXES	2,253,757	2,177,279	1,985,387	1,707,984	2,120,184
100	409, 410	FEDERAL INCOME TAXES	4,260,355	3,749,581	4,393,473	6,494,059	6,319,835
101	409, 410	STATE INCOME TAXES	585,068	813,047	693,703	43,120	804,129
102		TOTAL OPERATING EXPENSES	156,921,919	160,891,552	142,454,835	132,294,149	115,834,295
103		NET OPERATING INCOME	7,550,710	9,004,768	10,091,489	13,647,798	12,898,421

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 3

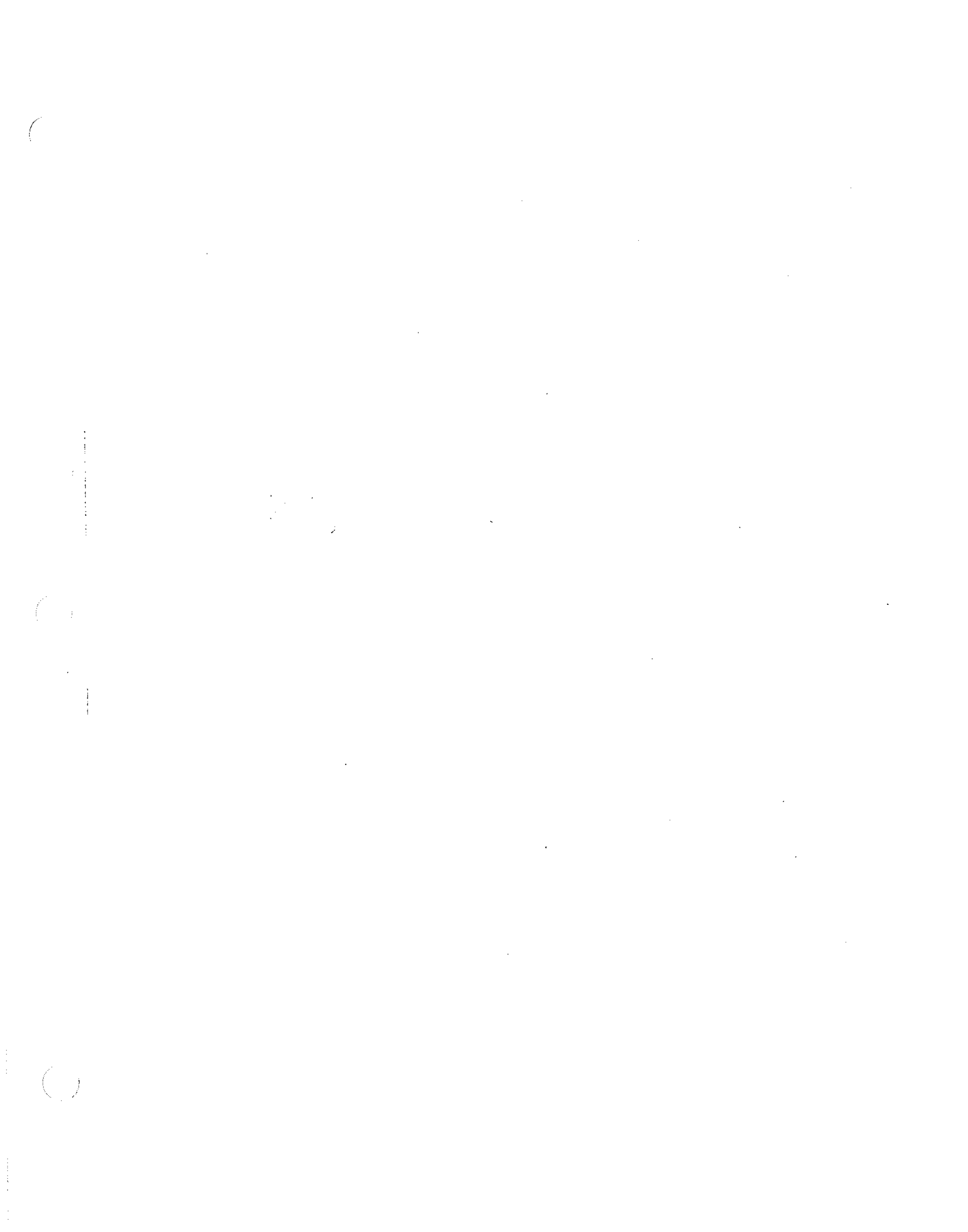
The Table of Contents of filing Volume 7 indicates that Ms. Cooper's direct testimony in this case includes testimony regarding "merger savings and rate mechanism." Please indicate where this information is included in Ms. Cooper's direct testimony.

In addition, explain how the merger savings and merger saving rate mechanism was treated in the Company's prior rate case, and how much of these merger savings *are reflected in the actual and pro forma-adjusted test year results.*

Response of Columbia Gas of Kentucky:

The Table of Contents from Columbia's prior rate case, Case No. 2002-00145, was used in preparation of the filing for this case. Due to an administrative oversight, the descriptions of the testimony in Volume 7 for Ms. Cooper and Mr. Miller were not updated from other witnesses who testified in the previous case. The appropriate description of Ms. Cooper's testimony is on page 17 of Mr. Miller's testimony. Mr. Miller provides a brief description of his testimony on page 3 of his testimony.

The rates established in the Commission's Order of December 13, 2002 in Case No. 2002-00145 included the merger savings and costs of the merger and eliminated the merger savings rider which Columbia had proposed in its application. All merger related savings are embedded in Columbia's cost of service and no merger related savings were adjusted out of the pro forma test year results.



Attorney General Data Request Set 1
Question No. **4**
Columbia Gas of Kentucky Respondent: **Kelly Humrichouse**

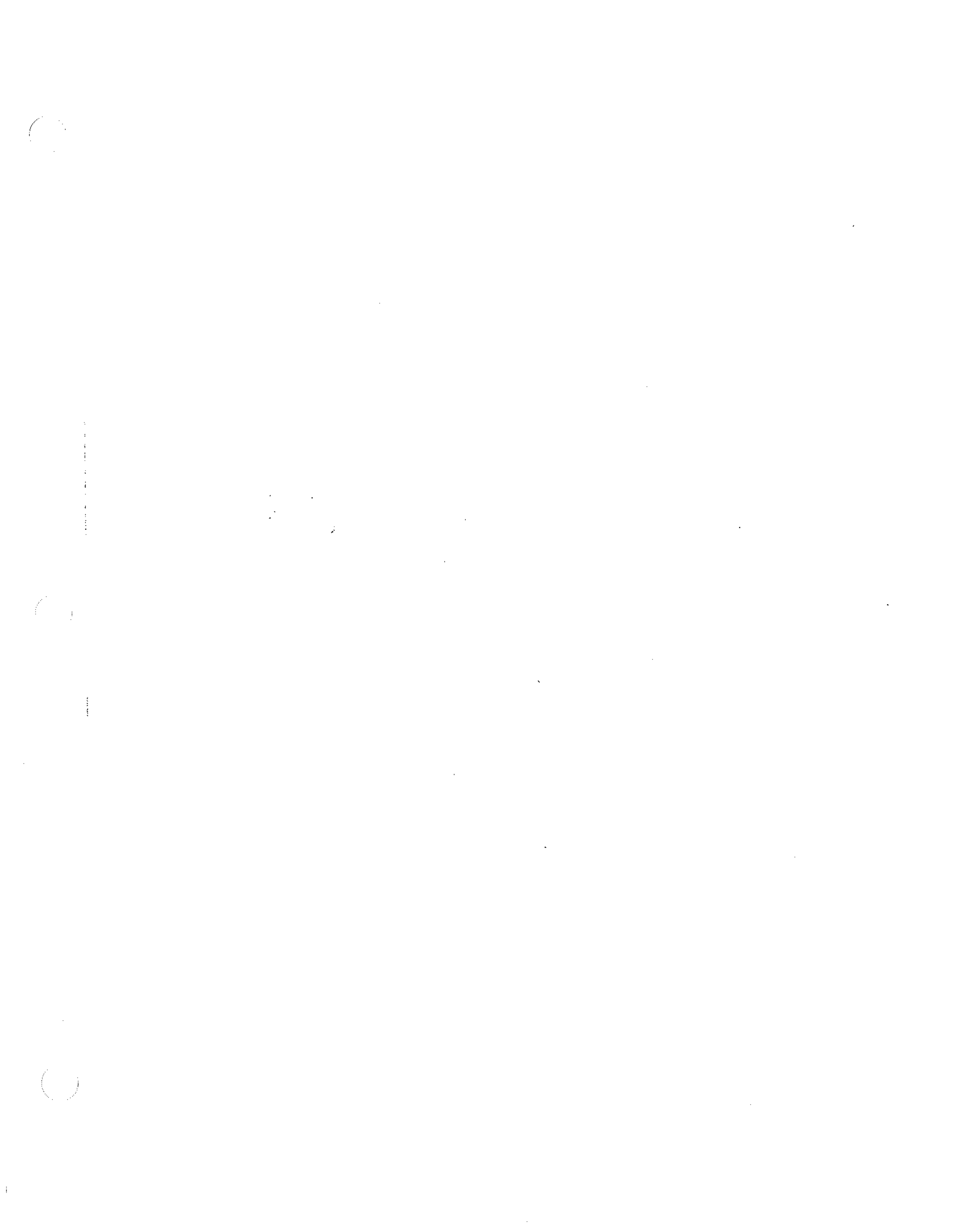
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 4

Please provide copies of Columbia Gas of Kentucky's annual reports for the years 2001, 2002, 2003, 2004 and 2005 that are on file with the Commission, as referenced on FR # 1-2. In addition, provide a copy of the 2006 annual report as soon as this had been filed on March 31, 2007.

Response of Columbia Gas of Kentucky:

Annual reports for each year, 2001 through 2005, have been included in the "Supplemental Book".



**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 5

With regard to the short-term debt balance and cost reflected by the Company in this case, please provide the following information:

a. Attachment PRM-5 indicates that the 13-month average ST debt balance for the test year was $8,052,333. Please provide each of the 13 monthly test year balances. In addition, provide the equivalent monthly ST debt balances for the first 9 months of 2005 and for each of the months of 10/2006 through 02/2007.

b. Please expand Schedule J-2 by providing the actual cost of ST debt for each month of the test year and for each month after the test year through February 2007.

Response of Columbia Gas of Kentucky:

a. The 13 monthly test year balances are as follows:

Month	Balance
September, 2005	$ 7,085,647
October, 2005	17,021,115
November, 2005	30,095,594
December, 2005	32,171,746
January, 2006	15,152,996
February, 2006	583,652
March, 2006	0
April, 2006	0
May, 2006	0
June, 2006	0
July, 2006	0
August, 2006	0
September, 2006	2,569,581
Total	$ 104,680,331
13-Month Average	$ 8,052,333

Additional months requested are as follows:

Month	Balance
First 9 months in 2005:	
January, 2005	$ 0
February, 2005	0
March, 2005	0
April, 2005	0
May, 2005	0
June, 2005	0
July, 2005	0
August, 2005	0
Remaining months post test year:	
October, 2006	8,897,849
November, 2006	0
December, 2006	0
January, 2007	0
February, 2007	$ 0

b. The cost of short-term debt by month is as follows:

Month	Average Rate in Month
September, 2005	3.71%
October, 2005	3.63%
November, 2005	4.12%
December, 2005	4.50%
January, 2006	4.74%
February, 2006	4.82%
March, 2006	5.00%
April, 2006	4.94%
May, 2006	4.91%
June, 2006	5.28%
July, 2006	5.46%
August, 2006	5.56%
September, 2006	5.78%

The additional months cost of short-term debt by month is as follows:

Month	Average Rate in Month
October, 2006	5.75%
November, 2006	5.77%
December, 2006	5.73%
January, 2006	5.71%
February, 2006	5.73%

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 6

The Company is proposing a total jurisdictional rate base of $171,447,599 and a total jurisdictional capitalization of $152,032,872 (see Attachment PRM-5) in this case. In this regard, please provide the following information:

a. Please reconcile the $19,414,727 difference between the rate base and capitalization balances (note: in your response, please do not refer back to the information shown on FR # 6-i in Tab 27 because that information is not responsive to what is being requested here).

b. In Case No. 2000-080, the Commission on p. 11 of its order dated Sept. 27, 2000 stated: "The Commission is inclined to agree with the AG's observation that when rate base exceeds capitalization, this indicates that portions of rate base have been financed with funds from sources other than debt, preferred stock and common equity." Since the requested rate base in the current case is $19.4 million higher than the requested capitalization, explain why it is reasonable and appropriate to allow a return on $19.4 million worth of rate base that has not been funded by investor-supplied capital.

Response of Columbia Gas of Kentucky:

a. The primary driver between total jurisdictional rate base of $171,447,599 and total jurisdictional capitalization of $152,032,872 is due to a source of capital which impacts the 13 month average short term borrowing balance included in capitalization yet does not influence rate base. $16,705,792 of the $19,414,727 difference is attributable to a net 13 month average over-collected position related to gas expense recoveries. $3,711,842 is attributable to a net 13 month average over-collected position related to CHOICE transition costs/recoveries. The remaining unexplained $1,002,907 use of capital is driven by various items both short-term and long-term in nature.

b. Columbia believes it is appropriate to allow a return on the $19.4 million difference between capitalization and rate base because the difference is caused by items which are cyclical in nature by virtue of the mechanisms prescribed in Columbia's tariffs as a method to recover gas purchase expense through its Gas Cost Adjustment and approved by the PSC and, further, will not provide a permanent source of funding for rate base items. Conversely, had the gas cost volatility and throughput volatility caused Columbia to be in a net 13 month average under-collected position the capitalization balance would exceed rate base yet Columbia would continue to only request a return on rate base and not a return on the higher total capitalization.

Attorney General Data Request Set 1
Question No. 7
Columbia Gas of Kentucky Respondent: **Kelly L. Humrichouse**

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 7

As shown on Schedule B-3.1, the Company has not proposed any adjustments to its proposed actual test year-end accumulated depreciation reserve balance. However, as shown on Schedule C-2, line 10, the Company in this case has proposed annualized deprecation expenses of $7,396,787, which are $2,079,946 higher than the actual unadjusted test year depreciation expenses of $5,316,841. Please explain why the Company has not proposed a pro forma adjustment to increase its test year accumulated depreciation reserve balance by the proposed $2,079,946 annualized depreciation adjustment, consistent with well-established and long-standing Commission ratemaking policy.[1]

Response of Columbia Gas of Kentucky:

Columbia has chosen to use a historic test year, and as such, has appropriately reflected both gross plant in service at "date certain", September 30, 2006, and a corresponding accumulated depreciation as of September 30, 2006. If Columbia had chosen a future test year as was the situation in Case No. 94-179, the corresponding accumulated depreciation would have been included on the same pro-forma basis.

Columbia's cost of service includes consideration for depreciation both as a component of return "on" investment and as a component of return "of" investment. This method conceptually provides Columbia with the opportunity to generate a level of revenue equal to the costs to carry funds already invested in property, plant and equipment used to serve the customer but not yet recovered from the customer. This method also provides Columbia with the opportunity to recover its investment in property, plant and equipment over the estimated lives of the assets. Once a portion of the initial investment is recovered, then a corresponding reduction in the cost to carry should follow.

The adjustment as suggested would have the effect of reducing Columbia's rate base by an amount not yet funded by the customer.

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[1] For example, see page 5 of the PSC Order in Case No. 2004-00067 (date: 11-10-2004); pages 14 and 15 of the PSC Order in Case No. 2001-00092 (date: 1-31-2002); page 18 of the PSC Order in Case No. 2000-080 (date: 9-27-2000); and pages 3 and 4 of the PSC Order in Case No. 92-346 (dated 7-22-1993).

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 8

The Company has calculated pro forma annualized depreciation expenses of $7,386,524 based on the application of Mr. Spanos' proposed new depreciation rates to the actual test year-end depreciable plant in service balances, as well as pro forma annualized depreciation expenses of $10,263 based on the application of Mr. Spanos' proposed new depreciation rates to certain actual test year-end CWIP balances. Please provide the equivalent annualized deprecation expense amounts calculated by the application of the *currently existing* depreciation rates to the test year-end depreciable plant in service balances and to the test year-end CWIP balances.

Response of Columbia Gas of Kentucky:

Please refer to 2007-00008 AG Set 1-008 Attachment 1 for the requested information.

Columbia Gas of Kentucky, Inc.
Case No. 2007-00008
Depreciation Expense Annualized - 2006 Depreciation Accrual Rates &
Depreciation Expense by Plant Account CWIP
Ended September 30, 2006

LINE NO.	Description	Gas Plant Account (1)	Schedule B-4 CWIP In Service (2)	Proposed Accrual Rate 1/ (3) %	Annualized Depreciation Expense (2 x 3 = 4) $
1	**INTANGIBLE PLANT**				
2	MISC INTANGIBLE PLANT	303.30	61,758	AMORT.	0
3	**DISTRIBUTION PLANT**				
4	LAND RIGHTS-OTHER DISTR SYSTEMS	374.40	0	1.53	0
5	RIGHTS OF WAY	374.50	0	1.22	0
6	STRUC & IMPROV-CITY GATE M & R	375.20	0	1.96	0
7	STRUC & IMPROV-GENERAL M & R	375.30	0	1.96	0
8	STRUC & IMPROV-REGULATING	375.40	0	1.96	0
9	STRUC & IMPROV-DISTR. IND. M & R	375.60	0	1.96	0
10	STRUC & IMPROV-OTHER DISTR. SYSTEMS	375.70	0	2.00	0
11	STRUC & IMPROV-COMMUNICATIONS	375.80	0	5.32	0
12	MAINS	376.00	74,797	1.57	1,174
13	M & R STATION EQUIP-GENERAL	378.10	0	2.35	0
14	M & R STA EQUIP-GENERAL-REGULATING	378.20	14,425	2.35	339
15	M & R STA EQUIP-GEN-LOCAL GAS PURCH	378.30	0	2.35	0
16	M & R STA EQUIP-CITY GATE CHECK STA	379.10	0	2.27	0
17	SERVICES	380.00	69,469	2.59	1,799
18	METERS	381.00	501	2.59	13
19	METER INSTALLATIONS	382.00	94,258	2.39	2,253
20	HOUSE REGULATORS	383.00	48,282	1.39	671
21	HOUSE REGULATOR INSTALLATIONS	384.00	0	1.10	0
22	INDUSTRIAL M & R STATION EQUIPMENT	385.00	2,235	2.09	47
23	OTHER EQUIP-ODORIZATION	387.20	0	4.22	0
24	OTHER EQUIP-TELEPHONE	387.41	0	2.34	0
25	OTHER EQUIPMENT-RADIO	387.42	0	2.34	0
26	OTHER EQUIP-OTHER COMMUNICATION	387.44	0	2.34	0
27	OTHER EQUIP-TELEMETERING	387.45	33,051	2.34	773
28	OTHER EQUIP-CUST INFO SERVICE	387.46	0	2.34	0
29	**GENERAL PLANT**				
30	OFFICE FURN & EQUIP-INFO SYSTEMS	391.12	300	AMORT.	0
31	TRANS EQUIP-TRAILERS OVER $1,000	392.20	0	6.34	0
32	TRANS EQUIP-TRAILERS $1,000 or LESS	392.21	0	6.34	0
33	TOOLS,SHOP, & GAR EQ-CNG STATIONARY	394.11	0	13.77	0
34	TOOLS,SHOP, & GAR EQ-TOOLS & OTHER	394.30	17,239	AMORT.	0
35	POWER OPERATED EQUIP-GENERAL TOOLS	396.00	0	0.00	0
36					
	Total		416,315		7,070

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 9

What kind of materials and supplies are included in Miscellaneous Deferred Debt sub-account 12357 shown on WPB-5.1, sheet 1 of 4 and why should this account be included in rate base?

Response of Columbia Gas of Kentucky:

Account 186-9999-12357, Miscellaneous Deferred debit – Mutual Material, includes the same type of material and supplies ("M&S") as account 154, Plant Material and Operating Supplies, i.e., materials purchased primarily for use by Columbia of Kentucky in its business for construction, operations and maintenance. Prior to outsourcing Columbia's inventory management, M&S purchases were recorded directly to account 154. Now, they are cleared through account 186-999-12357 before being transferred to account 154. Generally, this account zeros at the end of this month. On occasion, purchases occur that do not get cleared to account 154 before the books are closed. The amounts should be included in rate base as a capital investment similar to account 154 since they are the same type of costs.

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 10

Provide a break out of the various prepayment components included in the 13-month average test year prepayment balance of $344,194.

Response of Columbia Gas of Kentucky:

Please refer to 2007-0008 AG Set 1-010 Attachment 1 for the requested information.

Columbia Gas of Kentucky, Inc.
Working Capital Components
Account 165 Prepayments

	Beginning Balance $	Insurance $	Medical LTD Insurance $	Pension Expense $	Intercompany Insurance $	Ending Balance $	13 Month Average $
September-05	417,358	236,086	6,800	4	147,265	390,155	
October-05	390,155	207,680	4,533	4	127,176	339,393	
November-05	339,393	328,361	2,268	4	110,012	440,645	
December-05	440,645	291,899	2	4	92,849	384,754	
January-06	384,754	404,926	2	4	77,375	482,307	
February-06	482,307	213,167	2	4	61,900	275,073	
March-06	275,073	173,954	16,210	4	75,775	265,943	
April-06	265,943	135,951	19,566	4	41,758	197,279	
May-06	197,279	96,615	17,120	4	24,932	138,671	
June-06	138,671	57,279	14,674	4	8,107	80,064	
July-06	80,064	314,284	12,229	4	208,012	534,529	
August-06	534,529	295,383	9,783	4	188,366	493,536	
September-06	493,536	274,464	7,337	4	170,367	452,172	344,194

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 11

On page 9, lines 7-9 of his testimony, Mr. Miller states that "The increase in gas in underground storage is due to the significant increase in the cost of gas that the industry has experienced since 2001." In this regard, please provide the actual unit cost of gas ($/Dth) for each month from 1/1/2001 through 2/28/07.

Response of Columbia Gas of Kentucky:

The attached schedule lists by month the actual cost of gas, DTH, and unit cost per DTH for the period January 2001 through February 2007. The actual cost of gas includes local, non-local and city gate purchases.

COLUMBIA GAS OF KENTUCKY, INC.
AVERAGE UNIT COST OF GAS PER DTH
JANUARY 2001 THROUGH FEBRUARY 2007

	COST OF GAS	TOTAL DTH VOLUMES	AVERAGE UNIT COST PER DTH	
2001				
JANUARY	$25,461,431.00	2,463,537	$10.3353	
FEBRUARY	$12,270,409.00	1,852,484	$6.6238	
MARCH	$1,710,222.00	164,661	$10.3863	
APRIL	$1,961,785.00	352,371	$5.5674	
MAY	$4,008,403.00	799,516	$5.0135	
JUNE	$1,897,333.00	511,531	$3.7091	
JULY	$2,156,163.00	660,434	$3.2648	
AUGUST	$674,697.00	443,284	$1.5220	
SEPTEMBER	$390,827.00	138,980	$2.8121	
OCTOBER	($184,957.00)	(20,029)	$9.2343	
NOVEMBER	$512,176.00	168,942	$3.0317	
DECEMBER	$2,444,090.00	1,093,134	$2.2359	
2002				
JANUARY	$4,086,619	1,631,595	$2.5047	
FEBRUARY	$1,866,035	608,903	$3.0646	
MARCH	$407,453	93,325	$4.3659	
APRIL	$2,093,291	512,271	$4.0863	
MAY	$1,462,024	366,923	$3.9845	
JUNE	$2,180,136	738,527	$2.9520	
JULY	$1,534,508	427,253	$3.5916	
AUGUST	$490,730	143,405	$3.4220	
SEPTEMBER	$1,474,240	31,612	$46.6357	1/
OCTOBER	$163,180	442,055	$0.3691	1/
NOVEMBER	$4,838,119	1,112,450	$4.3491	
DECEMBER	$7,493,651	1,699,312	$4.4098	
2003				
JANUARY	$8,002,191	1,557,561	$5.1376	
FEBRUARY	$9,525,247	1,492,090	$6.3838	
MARCH	$15,637,640	1,605,352	$9.7409	
APRIL	$10,194,536	1,903,904	$5.3545	
MAY	$9,917,435	1,830,469	$5.4180	
JUNE	$9,849,624	1,635,887	$6.0210	
JULY	$9,332,476	2,069,987	$4.5085	
AUGUST	$8,460,406	1,650,124	$5.1271	
SEPTEMBER	$7,653,204	1,488,010	$5.1432	
OCTOBER	$4,258,254	891,294	$4.7776	
NOVEMBER	$1,918,814	429,084	$4.4719	
DECEMBER	$4,686,536	964,312	$4.8600	
2004				
JANUARY	$7,130,280	1,143,154	$6.2374	
FEBRUARY	$8,123,095	1,389,816	$5.8447	
MARCH	$4,031,103	746,571	$5.3995	
APRIL	$7,383,380	1,233,159	$5.9874	
MAY	$7,043,199	1,147,476	$6.1380	
JUNE	$8,979,610	1,300,433	$6.9051	
JULY	$9,606,866	1,496,837	$6.4181	
AUGUST	$6,722,605	843,362	$7.9712	
SEPTEMBER	$4,757,716	973,473	$4.8874	
OCTOBER	$3,882,805	605,724	$6.4102	
NOVEMBER	$2,979,356	317,123	$9.3950	
DECEMBER	$10,982,272	1,381,385	$7.9502	

COLUMBIA GAS OF KENTUCKY, INC.
AVERAGE UNIT COST OF GAS PER DTH
JANUARY 2001 THROUGH FEBRUARY 2007

	COST OF GAS	TOTAL DTH VOLUMES	AVERAGE UNIT COST PER DTH
2005			
JANUARY	$10,067,793	1,576,758	$6.3851
FEBRUARY	$2,337,043	312,957	$7.4676
MARCH	$2,480,787	372,060	$6.6677
APRIL	$18,172,374	1,984,450	$9.1574
MAY	$11,388,908	1,649,076	$6.9062
JUNE	$2,863,157	420,392	$6.8107
JULY	$14,925,164	2,011,934	$7.4183
AUGUST	$11,385,962	1,372,267	$8.2972
SEPTEMBER	$15,989,555	1,311,452	$12.1923
OCTOBER	$12,732,629	935,678	$13.6079
NOVEMBER	$12,738,993	996,614	$12.7823
DECEMBER	$10,641,206	940,531	$11.3140
2006			
JANUARY	$11,301,549	955,077	$11.8331
FEBRUARY	$5,843,691	637,535	$9.1661
MARCH	$2,587,165	338,431	$7.6446
APRIL	$4,048,822	509,325	$7.9494
MAY	$3,287,984	453,851	$7.2446
JUNE	$945,267	124,353	$7.6015
JULY	$7,411,298	1,230,263	$6.0242
AUGUST	$23,439,187	2,844,566	$8.2400
SEPTEMBER	$13,170,246	1,894,075	$6.9534
OCTOBER	$2,810,947	569,956	$4.9319
NOVEMBER	$453,795	39,051	$11.6206
DECEMBER	$5,837,656	607,017	$9.6170
2007			
JANUARY	$4,250,704	631,604	$6.7300
FEBRUARY	$8,774,263	1,109,647	$7.9073

1/ There is a volume shift between months due to an accounting error. September 2002 volumes should be increased by 419,511 for a total of 451,123 resulting in a rate of $3.2679. October 2002 volumes should be decreased by 419,511 for a total of 22,544 resulting in a rate of $7.2383.

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 12

WPB-5.1, sheet 3 of 4 shows actual gas stored underground dollar balances for each of the months of September 2005 through September 2006. In this regard, please provide the following information:

a. Actual monthly gas stored underground volume (in Dths) and the applicable actual average monthly gas price per Dth which, when applied to the monthy Dth volume, results in each of the monthly dollar balances shown on sheet 3 of 4.

b. Similar actual monthly gas stored underground volumes (in Dths), the applicable actual average monthly gas prices per Dth, and the resulting actual monthly gas stored underground dollar balances for October 2006 through February 2007.

c. Similar actual monthly gas stored underground volumes (in Dths), the applicable actual average monthly gas prices per Dth, and the resulting actual monthly gas stored underground dollar balances for October 2001 through August 2005.

Response of Columbia Gas of Kentucky:

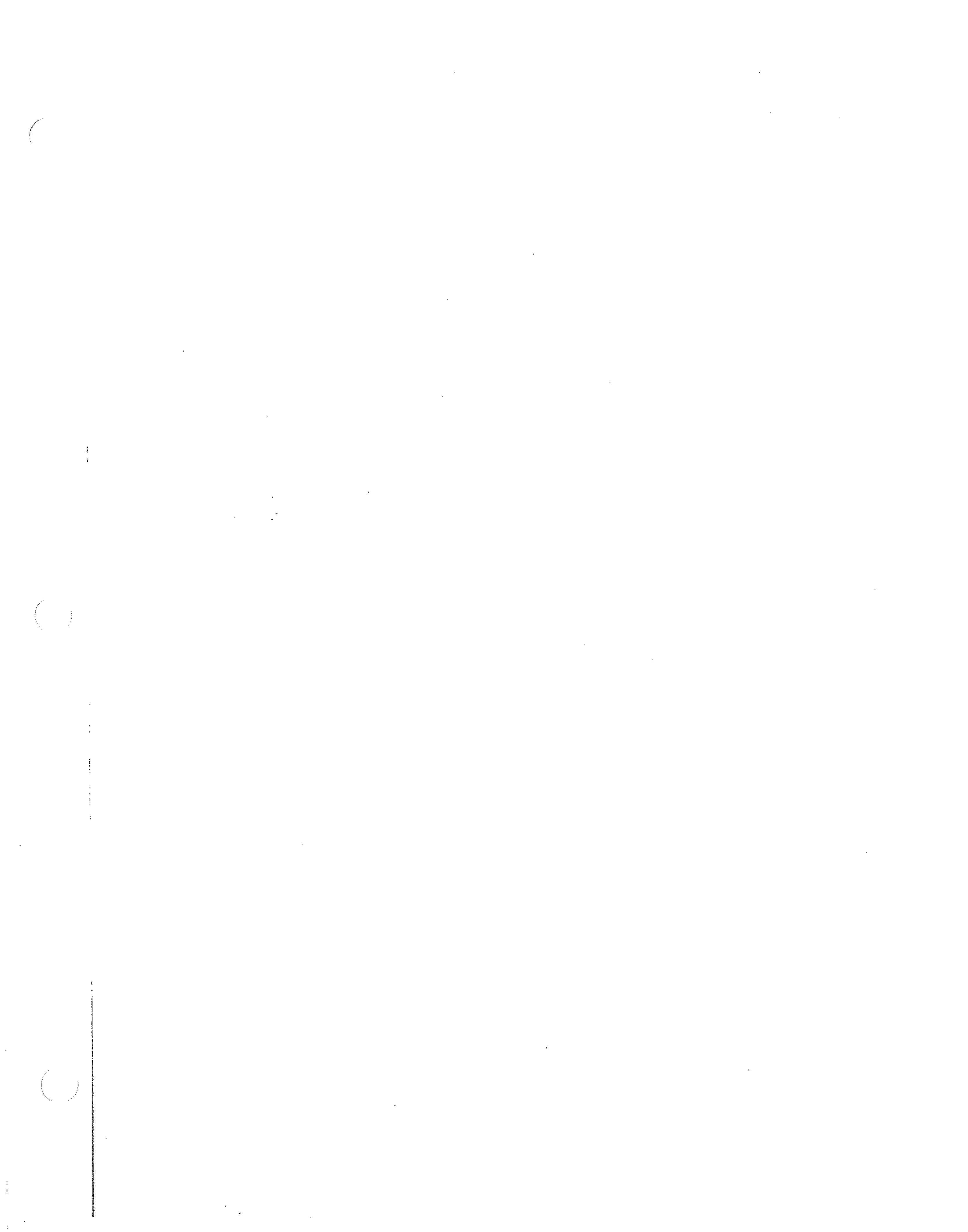
AG Set 1-012 Attachment 1 lists by month the underground storage balance, DTH and the average storage rate per DTH for the period October 2001 through February 2007. The average storage rate has been developed by dividing the dollar balance by DTH. This represents the embedded average rate of all LIFO layers of storage. Accounting uses an average annual LIFO storage rate to value storage. This rate is not shown on the attachment to this response.

COLUMBIA GAS OF KENTUCKY, INC.
GAS STORED UNDERGROUND
OCTOBER 2001 THROUGH FEBRUARY 2007

	ACCOUNT 164/242 ENDING BALANCE	TOTAL DTH VOLUMES	AVERAGE RATE PER DTH
2001			
OCTOBER	$28,746,289	8,943,169	$3.21
NOVEMBER	$28,233,691	8,851,541	$3.19
DECEMBER	$19,288,563	7,204,845	$2.68
2002			
JANUARY	$14,125,448	5,639,535	$2.50
FEBRUARY	$8,459,700	3,921,842	$2.16
MARCH	$4,334,442	1,384,816	$3.13
APRIL	$4,741,413	1,543,206	$3.07
MAY	$7,463,452	2,602,603	$2.87
JUNE	$5,151,345	3,343,233	$1.54
JULY	$8,720,992	4,318,290	$2.02
AUGUST	$10,522,060	4,810,256	$2.19
SEPTEMBER	$13,778,336	5,590,082	$2.46
OCTOBER	$13,241,635	5,432,803	$2.44
NOVEMBER	$12,539,532	5,227,052	$2.40
DECEMBER	$10,906,346	4,924,567	$2.21
13 Mo Avg	$10,251,790		
2003			
JANUARY	($664,581)	2,719,248	($0.24)
FEBRUARY	($7,877,018)	1,344,620	($5.86)
MARCH	($6,996,182)	1,637,670	($4.27)
APRIL	($4,769,853)	2,046,424	($2.33)
MAY	($2,971,113)	2,376,671	($1.25)
JUNE	$835,209	3,535,537	$0.24
JULY	$5,837,720	4,225,493	$1.38
AUGUST	$11,024,852	4,940,912	$2.23
SEPTEMBER	$15,167,465	5,664,951	$2.68
OCTOBER	$16,027,079	5,814,311	$2.76
NOVEMBER	$12,974,845	5,283,976	$2.46
DECEMBER	$8,849,908	4,128,063	$2.14
13 Mo Avg	$4,488,052		
2004			
JANUARY	($825,071)	2,528,867	($0.33)
FEBRUARY	($6,101,156)	1,656,773	($3.68)
MARCH	($9,287,066)	1,131,978	($8.20)
APRIL	($6,183,141)	1,644,722	($3.76)
MAY	($1,252,367)	2,459,246	($0.51)
JUNE	$5,082,961	3,525,425	$1.44
JULY	$10,265,061	4,354,459	$2.36
AUGUST	$15,559,540	5,201,472	$2.99
SEPTEMBER	$20,256,303	5,869,139	$3.45
OCTOBER	$21,617,552	6,076,921	$3.56
NOVEMBER	$17,756,889	5,487,628	$3.24
DECEMBER	$9,761,823	4,258,368	$2.29

COLUMBIA GAS OF KENTUCKY, INC.
GAS STORED UNDERGROUND
OCTOBER 2001 THROUGH FEBRUARY 2007

13 Mo Avg	$6,577,018		
2005			
JANUARY	$8,047,950	4,008,228	$2.01
FEBRUARY	($2,358,827)	2,792,394	($0.84)
MARCH	($15,441,931)	1,460,940	($10.57)
APRIL	$2,111,575	3,316,610	$0.64
MAY	$15,838,547	5,091,620	$3.11
JUNE	$24,974,915	6,301,264	$3.96
JULY	$38,460,573	7,876,808	$4.88
AUGUST	$49,795,973	9,350,650	$5.33
SEPTEMBER	$66,909,084	10,805,091	$6.19
OCTOBER	$72,256,381	11,307,949	$6.39
NOVEMBER	$69,861,584	11,008,886	$6.35
DECEMBER	$52,359,573	8,837,300	$5.92
13 Mo Avg	$30,198,248		
2006			
JANUARY	$40,463,675	7,743,637	$5.23
FEBRUARY	$25,966,446	5,736,155	$4.53
MARCH	$23,742,471	5,259,388	$4.51
APRIL	$28,899,953	6,021,604	$4.80
MAY	$29,477,203	6,187,333	$4.76
JUNE	$34,363,936	6,691,316	$5.14
JULY	$47,885,141	8,283,843	$5.78
AUGUST	$58,764,853	9,568,336	$6.14
SEPTEMBER	$70,324,844	11,109,753	$6.33
OCTOBER	$71,172,981	11,110,058	$6.41
NOVEMBER	$60,879,624	9,885,761	$6.16
DECEMBER	$48,716,415	8,445,688	$5.77
13 Mo Avg	$45,616,701		
2007			
JANUARY	$26,509,526	5,399,436	$4.91
FEBRUARY	($909,706)	2,530,572	($0.36)



**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 13

The 9/30/06 balance sheet in FR # 6-r shows an Account 252 – Customer Advances for Construction balance of $1,040,995. Please reconcile this with the Account 252 – Customer Advances for Construction balance of $163,698 that is being reflected as a rate base deduction in this case and explain why the difference of $877,297 should not be used as a rate base deduction.

Response of Columbia Gas of Kentucky:

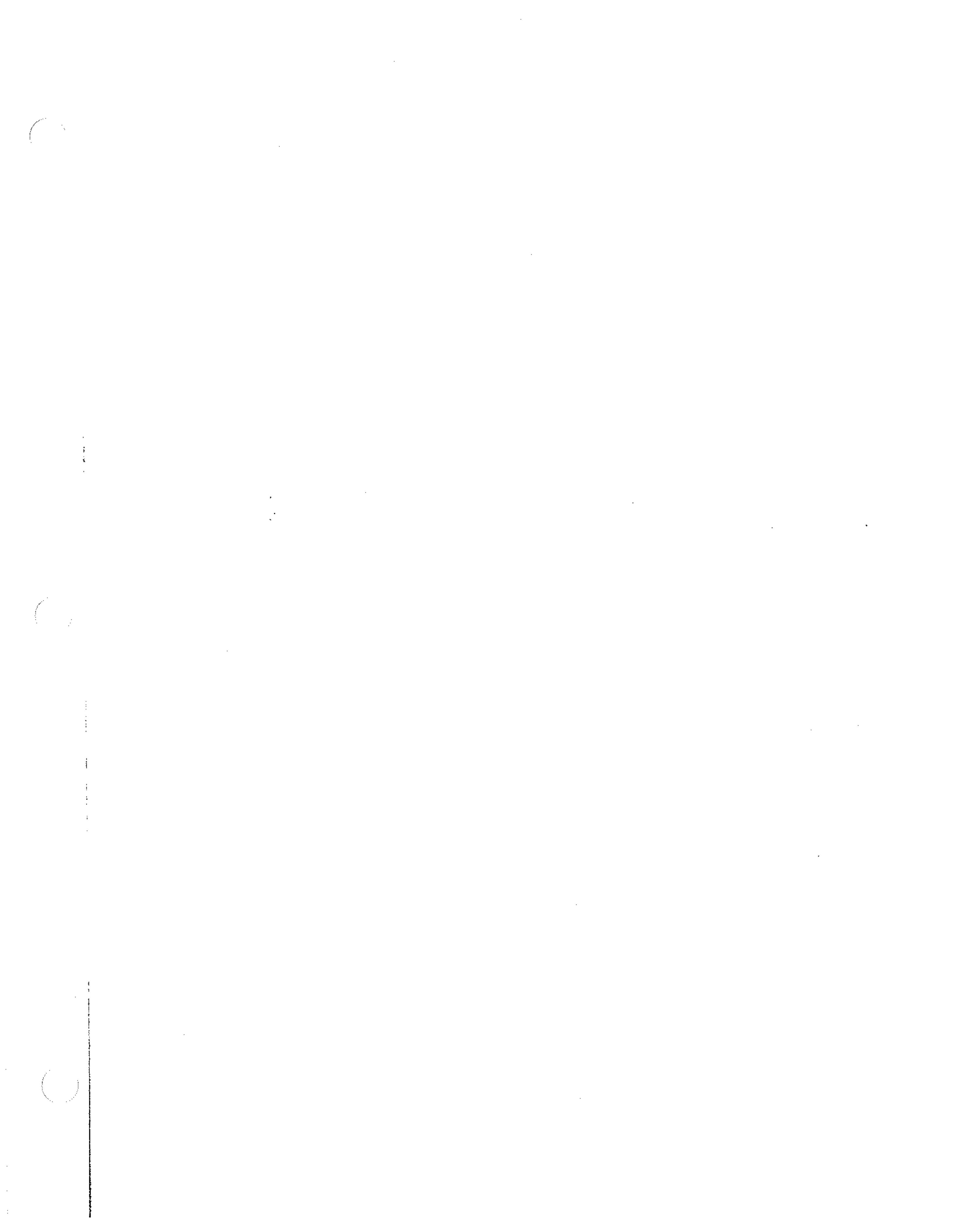
Customer Advances for Construction have been classified to one of two different 252 sub-accounts. Account 252-15561 has been used as a classification for Customer Advances since January 2000. Account 252-15560 was used prior to January 2000. The balance in account 252-15561 was $877,278 and the balance in account 252-15560 was $163,698 as of September 30, 2006. Use of account 252-15561 began with the adoption of a revised method of accounting for Customer Advances. A reduction to rate base has been properly included for Customer Advances pertaining to both 252 sub-accounts.

A debit is made to 101-Gas Plant in Service once plant is placed in service regardless of the accounting treatment for Customer Advances. A credit is made to 101-Gas Plant in Service in recognition of Customer Advances since January 2000. Therefore, a reduction to rate base has already been included for $877,278 related to account 252-15561 by including the net 101-Gas Plant in Service per books.

Prior to January 2000, there was no 101-Gas Plant in Service offset for Customer Advances. As such, rate base would not otherwise be reduced for Customer Advances prior to January 2000. The reduction to rate base for these Customer Advances is made by including account 252-15560 for $163,698.

The following table provides a summary of the entries described above.

Entries for Customer Advances not Refunded 1/	**Prior to January 2000**		**After January 2000**	
	Debit	Credit	Debit	Credit
Record Cost of Construction	101	131	101	131
Record Billing for Customer Advance	143	252	143	101
Customer Advance Received	131	143	131	143
Record Liability for Customer Advance			186	252
Both methods show customer advances received at this point and a liability recorded in 252. However, the net entries are different	101	252	186	252
Record Customer Advances not Refunded	252	101	252	186
Once a Customer Advance is deemed non-refundable it becomes a Contribution in Aid of Construction and there are no remaining entries on the books in recognition of a liability.				
1/ Entries are not shown as running through 107–Construction Work in Progress for simplicity purposes				



**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 14

With regard to the Company's accumulated deferred income taxes, please provide the following information:

a. Description and dollar amount breakout of all of the actual per books accumulated deferred income tax components booked by the Company as of 9/30/06 in accounts 190, 281, 282, 283 (and in other accounts, if any).
b. An indication as to which of the ADIT components to be provided in the response to part a above has been used as a rate base deduction and which ADIT components have not been used as a rate base deduction.

For each of the ADIT balances identified in the response to part b as a non-rate base deduction balance, explain why they have not been deducted from rate base.

Response of Columbia Gas of Kentucky:

14 a. Please see attached.

14 b. Please see attached. Upon further review, it was noted that there are three new accounts which should have been included in rate base but were inadvertently missed. They have been updated in the attached schedule. The ADIT balances that have not been used as a rate base deduction are non-property related and/or the related underlying book balances are not used in the calculation of rate base.

COLUMBIA GAS OF KENTUCKY
ACCUMULATED DEFERRED INCOME TAXES
TWELVE MONTHS ENDED SEPTEMBER 30, 2006

Sub Acct		Rate Base	Non-Rate Base
	Account 190 - Deferred Income Taxes		
1631	SECTION 461-H RATE REFUNDS - FEDERAL	$ -	$ 27,741
1632	SECTION 461-H RATE REFUNDS - STATE		5,071
1701	SECTION 463 - VACATION ACCRUAL - FEDERAL		181,030
1702	SECTION 463 - VACATION ACCRUAL - STATE		33,015
1919	CMEP/DAP RESERVE - FEDERAL		21,174
3919	CMEP/DAP RESERVE - STATE		3,861
1938	LIFO INVENTORY ADJ - FEDERAL	3,369,128 2/	
3938	LIFO INVENTORY ADJ - STATE	614,313 2/	
1939	OFF-SYSTEM SALES - FEDERAL		48,744
3939	OFF-SYSTEM SALES - STATE		8,884
1946	ENVIRONMENTAL ISSUES - FEDERAL		(13,581)
3946	ENVIRONMENTAL ISSUES - STATE		(2,476)
1947	INVENTORY CAPT COSTS - FEDERAL		160,982
3947	INVENTORY CAPT COSTS - STATE		29,357
1972	SPECIAL SEVERANCE PLAN - FEDERAL		236,946
3972	SPECIAL SEVERANCE PLAN - STATE		43,221
1979	OPEB - FEDERAL		(125,423)
3979	OPEB - STATE		(22,873)
1980	SFAS 112 - FEDERAL		29,088
3980	SFAS 112 - STATE		5,304
2010	TCO PENALTY CREDITS - FEDERAL		132,483
4010	TCO PENALTY CREDITS - STATE		24,161
2851	CIAC & CUSTOMER ADVANCES - FEDERAL	356,470	
4851	CIAC & CUSTOMER ADVANCES - STATE	67,508	
2904	RESTRICTED STOCK - FEDERAL		2,154
4904	RESTRICTED STOCK - STATE		392
2931	RETENTION AGREEMENTS - FEDERAL		992
4931	RETENTION AGREEMENTS - STATE		188
2933	INJURIES & DAMAGES - FEDERAL		78,918
4933	INJURIES & DAMAGES - STATE		14,391
2953	RATE BASE 1% INCREMENT - FEDERAL		10,381
2973	DELAYED DEPOSITS - FEDERAL		8,279
4973	DELAYED DEPOSITS - STATE		1,510
2979	OPEB - FEDERAL		(389,416)
4979	OPEB - STATE		(71,018)
2980	SFAS 112 - FEDERAL		474,915
4980	SFAS 112 - STATE		86,646
2996	SFAS REGULATED LIABILITY - FEDERAL		496,288
4996	SFAS REGULATED LIABILITY - STATE		93,233
	Total Account 190	$ 4,407,419	$ 1,634,562

COLUMBIA GAS OF KENTUCKY
ACCUMULATED DEFERRED INCOME TAXES
TWELVE MONTHS ENDED SEPTEMBER 30, 2006

Sub Acct		Rate Base	Non-Rate Base
	Account 282 - Deferred Income Taxes		
2205	UTILITY OPERATING INCOME - FEDERAL	$ (15,165,904)	$ -
4205	UTILITY OPERATING INCOME - STATE	(3,800,620)	
2211	RETIREMENT LOSS ACRS PROPERTY - FEDERAL	(3,519,378)	
4211	RETIREMENT LOSS ACRS PROPERTY - STATE	(885,711)	
2231	PROPERTY REMOVAL COSTS - FEDERAL	(304,975)	
4231	PROPERTY REMOVAL COSTS - STATE	(77,533)	
2232	CONTRIBUTION IN AID OF CONSTRUCTION - FEDERAL	1,393,418	
4232	CONTRIBUTION IN AID OF CONSTRUCTION - STATE	335,206	
2234	BUILDER INCENTIVES - FEDERAL	52,520 1/	
4234	BUILDER INCENTIVES - STATE	14,276 1/	
2908	FAS 96 OFFSET - FEDERAL		1,000,987
4908	FAS 96 OFFSET - STATE		1,117,541
2951	RRA '93 - 1% OFFSET - FEDERAL		(117,210)
2953	RATE BASE ADJUSTMENT - 1% INCREMENT - FEDERAL		(348,314)
4227	NON-CONFORMING STATE DEPRECIATION	638,877 1/	
	Total Account 282	$ (21,319,824)	$ 1,653,004
	Account 283 - Deferred Income Taxes		
1301	DEFERRED GAS PURCHASE - FEDERAL	$ -	$ (1,199,107)
3301	DEFERRED GAS PURCHASE - STATE		(92,741)
1304	DEFERRED INTERCOMPANY GAIN - FEDERAL		(376,474)
1904	PROPERTY TAXES - FEDERAL		50,117
3904	PROPERTY TAXES - STATE		9,148
1913	TCO PENALTY CREDITS - FEDERAL		(167,139)
3913	TCO PENALTY CREDITS - STATE		(30,484)
1925	CAP - FEDERAL		198,277
3925	CAP - STATE		36,159
1929	CHARITABLE CONTRIBUTIONS - FEDERAL		(115,153)
3929	CHARITABLE CONTRIBUTIONS - STATE		(21,001)
1932	RATE CASE - FEDERAL		(53,547)
3932	RATE CASE - STATE		(9,765)
1941	UNCOLLECTIBLE ACCOUNTS - FEDERAL		167,511
3941	UNCOLLECTIBLE ACCOUNTS - STATE		30,554
2925	RETIREMENT INCOME PLAN - FEDERAL		197,416
4925	RETIREMENT INCOME PLAN - STATE		36,002
2951	LIABILITY, GENERAL OFFICE LEASE - FEDERAL	(85,237)	
4951	LIABILITY, GENERAL OFFICE LEASE - STATE	(18,726)	
	Total Account 283	$ (103,963)	$ (1,340,227)
	Total Accumulated Deferred Income Taxes	$ (17,016,368)	$ 1,947,339

1/ These accounts were inadvertently missed and should be included in rate base.

2/ This balance represents actual book balance at 9-30-06. The balance included in rate base is a 13 month Average balance at 9-30-06.

Attorney General Data Request Set 1
Question No. **15**
Columbia Gas of Kentucky Respondent: **Panpilas Fischer**

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 15

Please explain the nature and purpose of the Account 190 ADIT balances of $3,171,890 and $597,384 for LIFO Inventory, shown on Schedule B-6, lines 5 and 6.

Response of Columbia Gas of Kentucky:

Account 190 ADIT records the deferred taxes on the book versus tax differences in the method of valuing inventory. $3,171,890 is the federal deferred tax and $597,384 is the state deferred tax. For book purposes, the LIFO storage rate is based on the 12 month average commodity gas purchase costs only, excluding demand costs. For tax purposes, the LIFO storage rate is calculated based on the 12 month average of all gas purchase costs including demand charges. The difference in the two rates is capitalized for tax purposes and reversed as gas is withdrawn from storage.

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 16

The 9/30/06 balance sheet in FR #6-r shows an Account 228.3 – Accumulated Provision for Injuries and Damages of $275,216. In this regard, please provide the following information:

a. Explanation of the nature of this account balance.

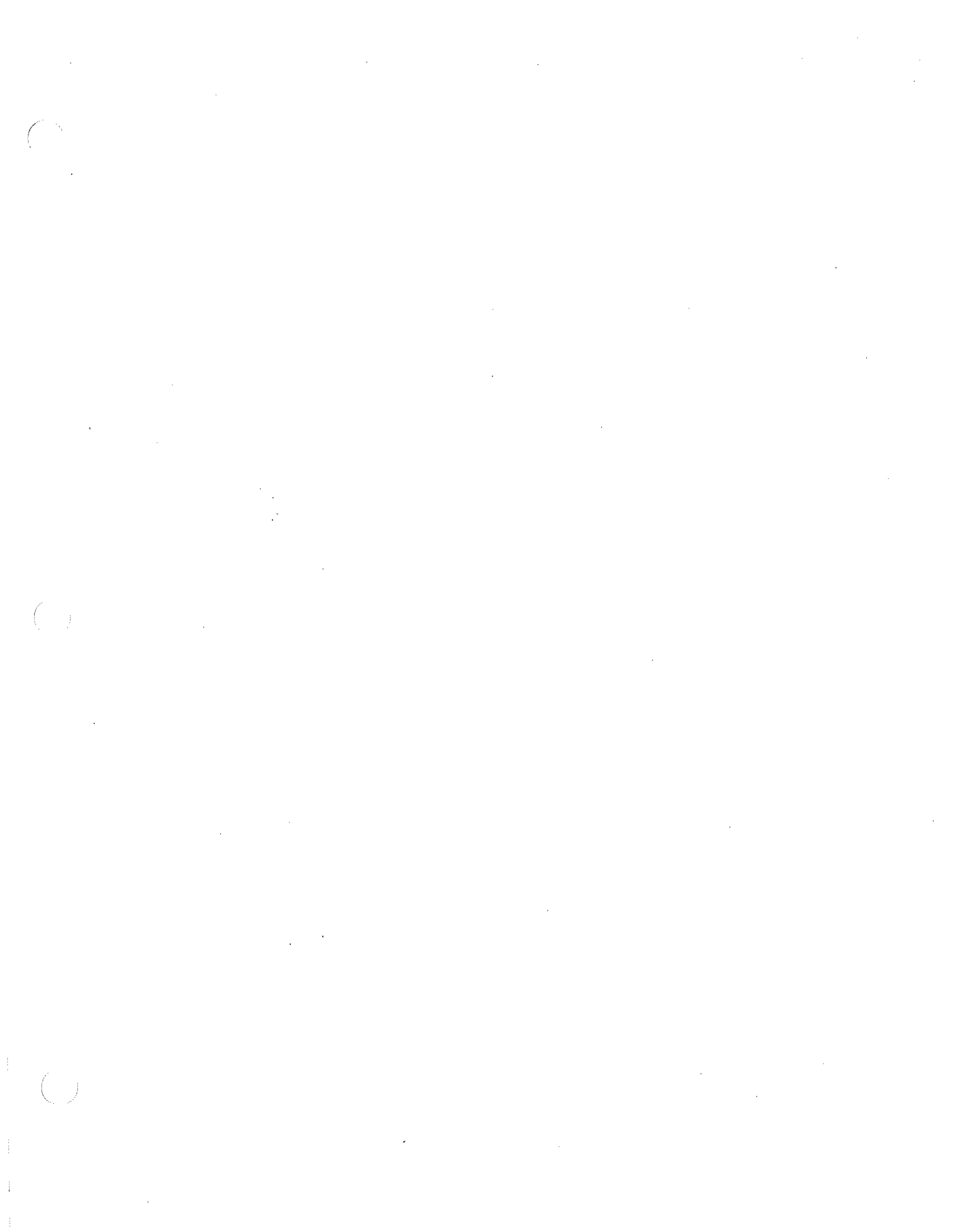
b. Actual Account 228.3 – Accumulated Provision for Injuries and Damages balances for each month from February 2002 through February 2007.

Response of Columbia Gas of Kentucky:

a. Accumulated Provision for Injuries and Damages is Account 228.2, as shown in the 9/30/06 balance sheet in FR #6, and contains a balance of $275,216. This liability contains the probable liability to Columbia of Kentucky of claims for deaths or injuries to employees and others not covered by insurance. The liability also includes probable damages to property not owned or leased by the company and not covered by insurance.

b. See data below:

	2002	2003	2004	2005	2006	2007
	$	$	$	$	$	$
Jan.		383,773	301,017	151,863	239,816	146,872
Feb.	461,001	389,634	301,017	151,863	239,816	146,872
Mar.	451,884	354,706	203,477	148,379	238,142	
Apr.	452,756	356,170	203,477	148,379	238,142	
May	453,352	365,134	209,726	148,378	238,142	
Jun.	438,328	402,772	77,799	110,750	287,933	
Jul.	436,820	404,236	93,099	110,750	287,933	
Aug.	437,732	404,236	93,099	110,749	287,933	
Sep.	447,119	415,221	130,221	310,429	275,215	
Oct.	448,031	409,361	154,635	310,429	275,215	
Nov.	451,703	419,460	154,635	310,429	275,215	
Dec.	386,705	301,017	151,864	239,816	146,872	



**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 17

Please provide a description and dollar amount breakout of all of the components making up the 9/30/06 Account 242 – Miscellaneous Current and Accrued Liability balance of $28,861,586 and the 9/30/06 Account 253 – Other Deferred Credits balance of $2,509,691. In addition, explain why none of the components included in these two balances have been treated as rate base deductions in this case.

Response of Columbia Gas of Kentucky:

Please refer to 2007-0008 AG Set 1-017 Attachment 1 for the requested information.

These balances are considered cash working capital items and have been included as rate base deductions by means of application of the previously-accepted formula method to determine cash working capital allowances. This formula method is a reasonable approximation of the Company's cash working capital needs and is, therefore, a comprehensive representation of not only the 242 and 253 accounts being questioned here but all similar cash working capital related assets and liabilities.

Columbia Gas of Kentucky, Inc.
Account 242 - Miscellaneous Current and Accrued Liabilities and
Data As of September 30, 2006

Acct No.	Auxiliary	Activity	Description	Amount
				$
242				
	0001		Accrued Vacations	793,965
	0001		Banked Vacation	99,633
	0002		Accrued Payroll	893,568
	0003		Accrued Insurance	(9)
	0005		Payroll Deductions	
	0005		Purchased Vacations	(34)
		14880	Medical Insurance	1
		14885	Medical Assistance Plan	1
		14890	Voluntary Personal Accident Insurance	9
		14900	Health Maintenance Organization	(9)
		14910	Inactive Employee Dental Plan	(1)
		14911	Dental Plus	(11)
		14912	LTD - Buy Up	1
		14913	Group Life	2
		14920	Employee Contribution - Thrift Plan	28,363
		14925	Repayment Thrift Plan Loans and Interest	10,423
		14930	Employee Payroll Allotment - US Savings Bonds	14
		14950	Credit Union - Columbus	(1)
		14960	Credit Union - Pittsburgh	1
		14980	TRESOP - Payroll	(1)
		15000	Flexible Spending - Health Care	(57)
		15010	Flexible Spending - Dependent Care	9
		15020	Wage Attachment	3
		15030	Kentucky Employees PAC	(1)
		15040	Charitable Contributions	9
		15050	Union Dues	(1)
	0006		Contract Retain age	(1)
	0008		Exchange Gas	18,861,077
	0010		Unclaimed Funds	100,259
	0011		Withheld Accounts	
		15090	Lease Rental	2,124
	0016		Dental Assistance Plan	25,856
	0017		Comprehensive Medical Expense Plan	
		15130	CMCMPC Option C	53,273
		15131	Prescriptions	6,186
	0020		Rate Refunds - Suspended	
		15140	Principal	21
		15150	Interest	(1)
	0026		LTIP Dividend Liability	(9)
	0031		Retirement Income Plan Accrual	(7)
	0041		Health Maintenance Organization	2
	0047		Special Employee Severance Arrangement	67,391
	0077		Pension Restoration Plan	(2)
	0079		Other Post Retirement Employee Benefits	749,332
	0080		Post - Employment Benefits - Current	122,773
	0081		Inventory Deficit - Stored Gas Delivery	1
	0083		OPEB Actuarial Gain	(2)
	4900		Deferred Director Costs	(54)
	503X		Customer A/R Credit Balances	6,876,266
	9005		Environmental Expenditures	60,753

Columbia Gas of Kentucky, Inc.
Account 242 - Miscellaneous Current and Accrued Liabilities and
Data As of September 30, 2006

Acct No.	Auxiliary	Activity	Description	Amount
242				$
	9900		Other	
		15290	Wages Payable	(6,222,571)
		15291	Wages Payable - Gross Payroll	6,266,420
		15292	Res. Stock Dividend Payable	1
		15301	Delayed Deposits	22,822
		15330	Other	7
		15350	Heatshare Customer Contribution	(4,374)
		15360	Special Interim Agency Program	16
		15485	Audit Fees	10,716
		15486	Benefits Administration	39,062
		15487	Profit Sharing	(4)
		15750	Salary Continuation	(2)
		15891	Credits Deposits - Gas Supply	1
		15910	Capacity Release	28,788
		16009	Contingent Stock	1
		65285	Off System Sales - Unbilled	829,357
	9907		Change in Control	(1)
	9910		Unearned Revenue	(3)
	9950		Accrued Plant In Service	19
	0022	15170	Supplier Principal and Interest	35,877
		15170	CDC Company Interest	(11)
		15170	GCR Balance Adjustment	(5,888)
		15180	Special Agency Service	3,836
Total Account 242				**28,861,586**

Columbia Gas of Kentucky, Inc.
Account 253 - Other Deferred Credits
Data As of September 30, 2006

Acct No.	Auxiliary	Activity	Description	Amount
253				$
	0003		Unearned Interest - Residential Fuel Conversion Loan	90
	0049		Retention Agreements	1
	0050		Environmental Expenditures	(1)
	0079		Other Post Retirement Benefits	(21,425)
	0080		Post-Employment Benefits - Noncurrent	1,655,640
	0082		Other Post Retirement Benefits - Retiree Contributions	7,430
	9900		Miscellaneous	
		1558X	Employment Agreements	(2)
		15600	G.O. Building Lease (All CDC)	465,309
		15665	Deferred G/P Options	(14)
		15670	Other	(12)
		15675	TCO Penalty Credits	(1)
		15676	Nicole Energy Reserve	402,683
		15715	Special Employee Severance Program	(5)
		15782	Environmental INS Recoveries	(2)
Total Account 253				**2,509,691**

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 18

Provide a dollar amount breakout of all of the components (3%, 4%, 10% ITC, etc.) making up the actual 9/30/06 Account 255 - ADITC balance of $963,300 shown in the 9/30/06 balance sheet in FR # 6-r.

Response of Columbia Gas of Kentucky:

Please see attached.

COLUMBIA GAS OF KENTUCKY, INC.
ACCUMULATED DEFERRED INVESTMENT TAX CREDITS
SEPTEMBER 30, 2006

Vintage Year	J.D.C. 4%	J.D.C. 11% 1/	J.D.C. 8%	Rehab 15%	Account 255 Balance
1962-1973	0	0	0	0	0
1974	182	633	0	0	815
1975	0	0	0	0	0
1976	2,313	7,219	0	0	9,532
1977	4,600	14,354	0	0	18,954
1978	8,971	27,994	0	0	36,965
1979	0	66,934	0	0	66,934
1980	0	77,423	0	0	77,423
1981	0	107,360	0	0	107,360
1982	0	136,810	0	0	136,810
1983	0	18,553	77,321	11,681	107,555
1984	0	669	170,791	0	171,460
1985	0	-	195,685	0	195,685
1986	0	24,685	0	0	24,685
1987	0	9,122	0	0	9,122
Total	16,066	491,756	443,797	11,681	963,300

1/ 11% denotes 10% plus 1% TRESOP, increased to 1-1/2% in 1979 retroactive to years 1977 and 1978. For property, the construction of which was begun after December 31, 1982, the 1-1/2% TRESOP credit based on qualified property additions expired and was replaced by a 1/2% PAYSOP credit based on gross payroll.

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 19

With regard to the Company's proposed pro forma test year property taxes of $1,791,020 shown on Schedule D-2.11 and discussed on page 16 of Ms. Humrichouse's testimony, please provide the following information:

a. Provide the actual property tax credits booked by the Company as a result of successful property tax valuation protests in each of the last 10 years. In addition, indicate to which tax years these tax credits applied (e.g., the $118,256 tax credit booked in the test year applied to tax years 2004 and 2005).

b. Explain the process of these property tax valuation protests and whether the Company files such tax valuation protests on an annual basis.

c. Provide the most recent available annual property tax assessment for the Company by the KDR and explain whether this assessment is an initial assessment that can still be protested or whether it represents a final assessment that has been adjusted for any protests.

Response of Columbia Gas of Kentucky:

a. The company only protested tax years 2004 and 2005 in the past ten years. Regarding the credit booked in the test year, $72,688 was for tax year 2004 and $45,568 was for tax year 2005.

b. The Department of Revenue, Office of Property Valuation issues a Notice of Assessment with their opinion of the value of the company's assets in Kentucky. Prior to tax year 2004, a company representative would meet with the Office of Property Valuation and negotiate a value that was acceptable to all parties. Tax bills were issued subsequent to the determination of the acceptable value.

   Commencing with tax year 2004, the Office of Property Valuation was no longer allowed to negotiate values with taxpayers. This function was transferred to the Division of Protest Resolution within the Office

of Legal Services for Revenue. The inherent delays in this process requires the company to file tax valuation protests since the unacceptable valuation designated by the Office of Property Valuation becomes final forty-five days from the date of their notice.

c. The Notice of Assessment for tax year 2006 is attached. The valuation on this notice has been protested by the company and there has been no resolution of this protest to date.

61A240 (08-06)

2007-00008 AG Set 1-019 Attachment 1

Commonwealth of Kentucky
DEPARTMENT OF REVENUE
OFFICE OF PROPERTY VALUATION
Public Service Branch
200 Fair Oaks Lane 4th Floor Station 32
Frankfort KY 40620
Phone (502) 564-8175 FAX (502) 564-8192

NOTICE OF ASSESSMENT

COLUMBIA GAS OF KENTUCKY INC
MARK FEHLING
200 CIVIC CENTER DRIVE
COLUMBUS OH 43215 4138

GNC : 5525
TYPE CO : GU
TAX TYPE: 035
TAX ID : 550139565

This Notice of Assessment will become final on 01/22/2007, 45 days from the notice date. A corresponding Notice of Tax Due is being sent from the Compliance and Accounts Receivable System based on the Total Assessment shown below. The Notice of Tax Due will provide the state tax liability, any applicable interest and/or penalties that may be assessed. Local taxes will be billed seperately by the local taxing jurisdictions where your property is located.

If you protest this assessment, see enclosed 61F009 Notification-Protesting your Assessment. You must submitt a written protest in accordance with KRS 131.110; and as required by KRS 132.825, your protest must specify the valuation you claim to be true. Your written protest stating your claimed value and your payment of tax for your claimed value must be submitted to the Division of Protest Resolution on or before 01/22/2007 or no further remedies will be available regarding this assessment per KRS 134.590. Submit your protest and payment to: ATTN Property Tax Resolution / Public Service Section, Office of Legal Services for Revenue, Division of Protest Resolution, PO Box 3, Frankfort, KY 40602-0003. You may contact the division at Phone (502) 564-6734 and Fax (502) 564-3788.

Notice Date: 12/08/06 Tax Year: 2006 (For Year Ending December 31, 2005)

PROPERTY CLASS STATE AND LOCAL	TAX RATE Per $100	ASSESSED VALUE	STATE TAX DUE
Real Estate	0.128	101,992,506	130,550.41
*Tangible Property	0.45	82,367,596	370,654.18
Business Inventory	0.05	0	0.00
STATE TAX ONLY			
Foreign Trade Zone Tangible	0.001	0	0.00
Recycling Equipment	0.45	0	0.00
Manufacturing Machinery	0.15	0	0.00
Pollution Control Equipment	0.15	0	0.00
Telephonic Equipment	0.15	0	0.00
Business Inventory (MM)	0.05	0	0.00
IRB Property	0.015	0	0.00
IRB Property Nontaxable	0.00	0	0.00
TOTAL ASSESSED VALUE AND STATE TAX DUE		$184,360,102.00	$501,204.59

*Excludes Motor Vehicles $0

A 10% penalty is for late filed returns per KRS 132.290 (3). A 20% penalty is for omitted property per KRS 132.290 (4). Applicable interest will be applied when late or omitted.

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 20

The adjusted state income tax amount of $229,026 shown on line 6 of Schedule E-1, sheet 1 of 2 is 5.96% of the State Taxable Income on line 5. Please explain why this state income tax rate is not 6.00%.

Response of Columbia Gas of Kentucky:

The state income tax rate takes into account the first $50,000 of taxable income being taxed at 4% and the next $50,000 of taxable income being taxed at 5%. Any additional taxable income is then taxed at 6%.

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 21

Provide the bases for the Annual No. Occurances and Behavioral Factors shown on Attachment JMC-2.

Response of Columbia Gas of Kentucky:

The annual number of occurrences used to determine the anticipated revenue increase was the actual number of occurrences Columbia experienced in 2005 for each of the miscellaneous revenue items. No studies or analyses were necessary to develop the 75% behavior factor. With the proposed increases of $15 to $55 and $8 to $15 for the reconnect fee and return check fee, respectively, it is highly unlikely that Columbia would experience a constant level of those activities when the fee is established. Because a drop in occurrences is expected based on the proposed increases, Columbia estimated that it would only realize 75% of the additional revenue that it would have otherwise received if the drop in occurrences were not to occur.

Attorney General Data Request Set 1
Question No. 22
Columbia Gas of Kentucky Respondent: **Kelly Humrichouse**

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 22

Please provide the actual Account 487 – Forfeited Discounts and Account 488 – Miscellaneous Service Revenues for each of the years 2002, 2003, 2004, 2005 and 2006.

Response of Columbia Gas of Kentucky:

	Account 487 Forfeited Discounts $	Account 488 Miscellaneous Service Revenues $
December 2002	207,373	94,994
December 2003	265,957	110,567
December 2004	318,994	146,781
December 2005	252,465	124,769
December 2006	416,218	155,598

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 23

The Company's test year Account 495 – Other Gas Revenues amount to $9,120,973, consisting of $8,646,115 for Non-Traditional Sales revenues and $474,858 for Other Gas Revenues – Other. In this regard, please provide the following information:

a. What kind of products/services are associated with the $474,858 revenues?

b. Actual Other Gas Revenues – Other (equivalent to the test year revenues of $478,858) for each of the years 2002 through 2006.

c. What kind of products/services are associated with the $8,646,115 – Non Traditional Sales revenues and why has the Company removed these revenues from the pro forma test year?

d. Schedule M-2.1 shows that the $8,646,115 Non Traditional Sales revenues have associated gas cost revenues of $8,649,117. Please reconcile the $3,002 difference.

e. What are the gas costs associated with the $8,646,115 Non Traditional Sales that have been removed from the test year as part of the total Gas Supply Expense adjustment of $8,646,115 shown on line 18 (D-2.1) of Schedule D-1, sheet 1?

Response of Columbia Gas of Kentucky:

a. The 495 Other Gas Revenues – Other of $474,858 included in Columbia's test year includes: Marketer Charge revenue, Billing revenue, and other miscellaneous revenue including CHOICE gas supply sales. The Marketer Charge revenue is described on Sheet 34 of Columbia's Tariff and represents a per Mcf charge for all volumes delivered to the Marketer's Aggregation Pool. This represents $356,119 of the $474,858. The Billing revenue is described on Sheet 37f of Columbia's Tariff and represents a per bill charge and is applied according to the Marketer billing option by Aggregation Pool. This represents $73,226 of the $474,858. $45,513 is from other miscellaneous revenue.

b. See the table directly below.

	495 Other Gas Department Revenue - Other
2002	$149,606
2003	($141,833)
2004	$124,099
2005	$496,299
2006	$467,356

c. The non-traditional revenue of $8,646,115 relates to off-system sales made by Columbia of Kentucky under its approved gas supply incentive program. The program is detailed in the Columbia's Tariff at Sheet No. 50. The revenue has been removed since they are not a base rate recovery item and removal facilitates the preparation of the Company's cost of service study.

d. The $3,002 difference represents exchange gas fees incurred by the Company in October 2005 related to non-traditional exchange arrangements. These costs are not recoverable from tariff customers so they were eliminated from gas costs when making the gas cost adjustment in Schedule D-2.1, Sheet 4 of 6, Line 6.

e. The Company removed $8,646,115 of gas costs from the filing associated with the non-traditional revenue. The accounting for the off-system sales recognizes revenue in other gas department revenue equal to the gas costs. Any margin realized on the sale is credited to the Company's Gas Cost Adjustment Clause and the appropriate sharing level, if achieved, to below the line income. The off-system sales/Non-Traditional sales activity has a zero impact on Operating Income.

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 24

On page 7, lines 1 -11 of her direct testimony, Ms. Cooper discusses proposed increases in the fees to reconnect service that was discontinued at the request of the customer. In this regard, please provide the following information:

a) What are the actual test year revenues from these reconnect services, in which account are these revenues recorded and where are these revenues reflected on Schedule M page 2 of 2?

b) In the same format and detail as per her Attachment JMC-2, provide a schedule showing the estimated incremental annual revenues resulting from the proposal to increase these reconnect services fees. In addition, explain why the Company has not reflected these incremental revenues for ratemaking purposes in this case.

Response of Columbia Gas of Kentucky:

a) Columbia does not track reconnect fees collected from customers as a result of a reconnection of service that was discontinued at the request of the customer. The fees are more of a disincentive, and Columbia does not believe it experiences many. Any such revenues collected from customers are recorded to Account 488 – Miscellaneous Service Revenue. These revenues are shown on Schedule M, Page 2 of 2, Line 3. The total per book revenue for the test year is $118,856. The amount has been increased by $211,889, the proposed change in fees as shown on Attachment JMC-2, to $330,745 at proposed rates.

b) As mentioned in a above, Columbia does not track these fees, and does not believe it experiences many. Since the fee is a disincentive and Columbia believes it does not experience many of these fees, the test year level was reflected in the cost of service. If Columbia experienced 100; 75 residential and 25 commercial, which is extremely unlikely, the impact is less than $3,000 shown on 2007-00008 AG 1-24 Attachment 1 using the same format as Attachment JMC-2.

Columbia Gas of Kentucky, Inc.
Reconnect Fees for Reconnect of Service at Customer Request

Ln. No.	Item	Current Fee (1)	Proposed Fee (2)	Increase (3)=(2-1)	Estimated Occurrences (4)	Behavioral Factor (5)	Revenue Impact (6)=(3*4*5)
1	Residential	65	102	37	75	75%	2,081
2	Commercial	176	224	48	25	75%	900
3	Total						2,981

Attorney General Data Request Set 1
Question No. **25**
Columbia Gas of Kentucky Respondent: **Mark Balmert**

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 25

Please indicate and describe where in the "M" schedules (and in any other filing schedules) the revenue annualization adjustment "to reconcile the Energy Assistance Program ("EAP") surcharge revenues with EAP expense" (Humrichhouse testimony page 10, lines12-13) is reflected.

Response of Columbia Gas of Kentucky:

Sales Revenue:

Schedule M-2.2, Page 3 of 40, Line 7 shows the annualization of EAP sales revenue at the recovery rate in effect as of the end of the test year, September 30, 2006. The EAP sales annualization adjustment is included in the total annualization adjustment for rate schedule GRS by comparing $89,306,601.08 on Schedule M-2.2, Page 3 of 40, Line 8, Column K1 to test year rate schedule GRS of $101,386,020.14 shown in Schedule M-2.1, Page 1of 5, Line 3, Column J.

CHOICE Transportation Revenue:

Schedule M-2.2, Page 23 of 40, Line 7 shows the annualization of EAP Choice revenue at the recovery rate in effect as of the end of the test year, September 30, 2006. The EAP Choice annualization adjustment is included in the total annualization adjustment for rate schedule GTR by comparing $5,842,043.99 on Schedule M-2.2, Page 23 of 40, Line 8, Column K1 to test year rate schedule GTR of $5,814,916.77 shown in Schedule M-2.1, Page 4 of 5, Line 2, Column J.

Annualized Revenue tie to Expense

Adding EAP annualized sales revenue of $388,030.74 shown on Schedule M-2.2, Page 3 of 40, Line 7, Column K1 to EAP annualized Choice revenue of $121,110.11 shown on Schedule M-2.2, Page 23 of 40, Line 7, Column K1 results in a sum of $509,140.85, which ties to the annualized expense shown on Schedule D-2.1, Sheet 5 of 6, Line 8.

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
ORDER DATED APRIL 10, 2007**

Question No. 26

Schedule D-1, sheet 1 (D-2.1), line 18 shows that the proposed revenue adjustments on lines 1 – 12 result in an associated decrease in gas supply expenses of $28,973,361. Please provide a worksheet showing the calculations in support of this gas supply expense adjustment and showing that the gas volumes underlying this gas supply expense adjustment are the same as the gas volumes underlying the various revenue adjustments on lines 1 -12.

Response of Columbia Gas of Kentucky:

$28,973,361 is the difference between per books gas cost expense and annualized gas cost expense.

Per books gas cost expense is the sum of expenses in the following FERC accounts as shown on Schedule C-2.1, Sheet 1, Lines 24 through 32:

Account	Account Title	Amount
801-803	Natural Gas Field & Transportation Line Purchases	$125,263,991
804	Natural gas City Gate Purchases	4,437,715
805	Other Gas Purchases	24,423,800
806	Exchange Gas	(9,394,728)
807	Purchased Gas Expense	25,748
808	Gas Withdrawn from Storage	(3,415,747)
812	Gas Used for other Utility Operations	(152,270)
813	Exchange Fees	2,999
	Total Other Gas Supply Expense	$141,191,508

Annualized gas cost expense was calculated by rate schedule by customer class on Schedule M-2.2 by applying the Expected Gas Cost (EGC) Recovery Rate as of December 31, 2006 (the most recent available at the time of filing) to the normalized volumes for the test year (12 months ending September 31, 2006) resulting in the amount of $112,344,669.

Purchase gas expense (Account 807), and Gas used for other utility operations (Account 812), are classified by FERC as gas cost expense, but not shown as gas cost recovery revenue since these expenses are recovered through CKY's base rates.

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
ORDER DATED APRIL 10, 2007**

Schedule D-2.1, Sheet 4 of 6 shows the calculated difference:

Annualized Gas Cost Revenue	Schedule M-2.2, Page 2 of 40, Line 17, Column H	$112,344,669
Purchase Gas Expense	Schedule C-2.1, Line 28	25,748
Gas used for Utility Operations	Schedule C-2.1, Line 30	(152,270)
Total Annualized Gas Cost Expense		$112,218,147
Gas Cost Expense per Books	Schedule C-2.1, line 32	$141,191,508
Adjustment – Gas Cost Expense		(28,973,361)

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
ORDER DATED APRIL 10, 2007

Question No. 27

The Company's proposed pro forma adjusted gas supply expenses amount to $112,218,147. In this regard, please provide the following information:

a. Is 100% of this proposed gas supply cost of $112,218,147 recovered through the Company's GCA clause? If not, explain which portion of the total cost of $112,218,147 is recovered through the GCA and which portion is recovered through base rates.

b. Provide a schedule reconciling the pro forma gas supply cost of $112,218,147 to the corresponding GCA revenues included in the adjusted test year operating revenues of $158,276,796.

Response of Columbia Gas of Kentucky:

a. No. Purchase gas expense (Account 807) of $25,748, and gas used for other utility operations (Account 812) of ($152,270), are classified by FERC as gas cost expense, but are recovered through CKY's base rates. The remaining $112,344,669 is recovered through the GCA.

b.

Total Annualized Gas Cost Expense	Schedule D-2.1 Sheet 4	$112,218,147
Less: Purchase Gas Expense	Schedule C-2.1, Line 28	25,748
Less: Gas used for Utility Operations	Schedule C-2.1, Line 30	(152,270)
Annualized Gas Cost Revenue	Schedule M-2.2, Page 2 of 40, Line 17, Column H	$112,344,669
Plus: Current Revenue excl. Gas Cost	Schedule M-2.2, Page 2 of 40, Line 17, Column K	44,949,681
Plus: Acct. 487 Forfeited Discounts	Schedule M-2.2, Page 2 of 40, Line 19	388,732
Plus: Acct. 488 Misc. Service Revenue	Schedule M-2.2, Page 2 of 40, Line 20	118,856
Plus: Acct. 495 Other Gas Revenues	Schedule M-2.2, Page 2 of 40, Line 23	474,858
Adjusted test year operating revenues	Schedule M-2.2, Page 2 of 40, Line 25	$158,276,796

Attorney General Data Request Set 1
Question No. **28**
Columbia Gas of Kentucky Respondent: **William Gresham**

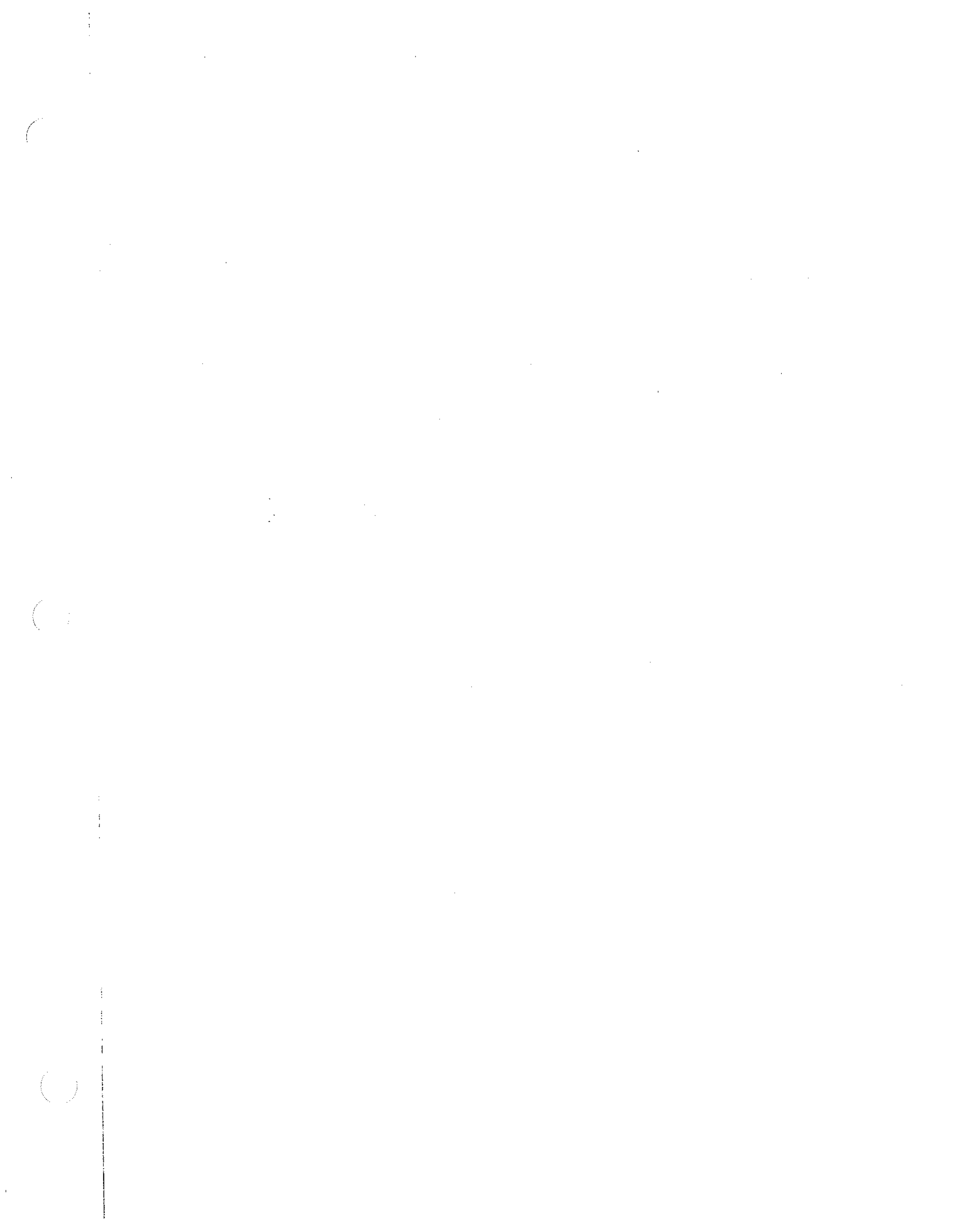
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 28

In deriving the weather-normalized residential and commercial customer usage numbers for 2001 and 2006 shown in the table at the bottom of page 2 of Mr. Gresham's testimony, did the Company use the same weather normalization statistics for both 2001 and 2006 (i.e., are the usage changes indicated in the table solely caused by factors other than weather, or is a portion of these usage changes caused by the fact that the Company used different normalized weather averages for the years 2001 and 2006)?

Response of Columbia Gas of Kentucky:

The usage changes indicated in the table are caused by factors other than weather. The same weather averages were used for both years.



**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 29

Please indicate what the total pro forma adjusted test year gas sales and gas transportation revenues of $157,294,349.77 would be if the Company had used 65 degrees as the reference point for HDD rather than 63 (residential) and 64 (commercial) degrees.

Response of Columbia Gas of Kentucky:

Throughput volume changes from 33,970,051.3 to 33,908,531.1, a decrease of 61,520.2 Mcf.

Revenue changes from $157,294,349.77 to $156,748,550.98, a decrease of $545,798.79.

Attorney General Data Request Set 1
Question No. **30**
Columbia Gas of Kentucky Respondent: **Mark Balmert**

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 30

Please indicate what the total pro forma adjusted test year gas sales and gas transportation revenues of $157,294,349.77 would be if the Company had assumed normal weather to be the 25-year average of 1981 – 2005 rather than the 20-year period 1986-2005.

Response of Columbia Gas of Kentucky:

Throughput volume changes from 33,970,051.3 to 34,067,824.1, an increase of 97,772.8 Mcf.

Revenue changes from $157,294,349.77 to $158,194,517.52, an increase of $900,167.75.

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

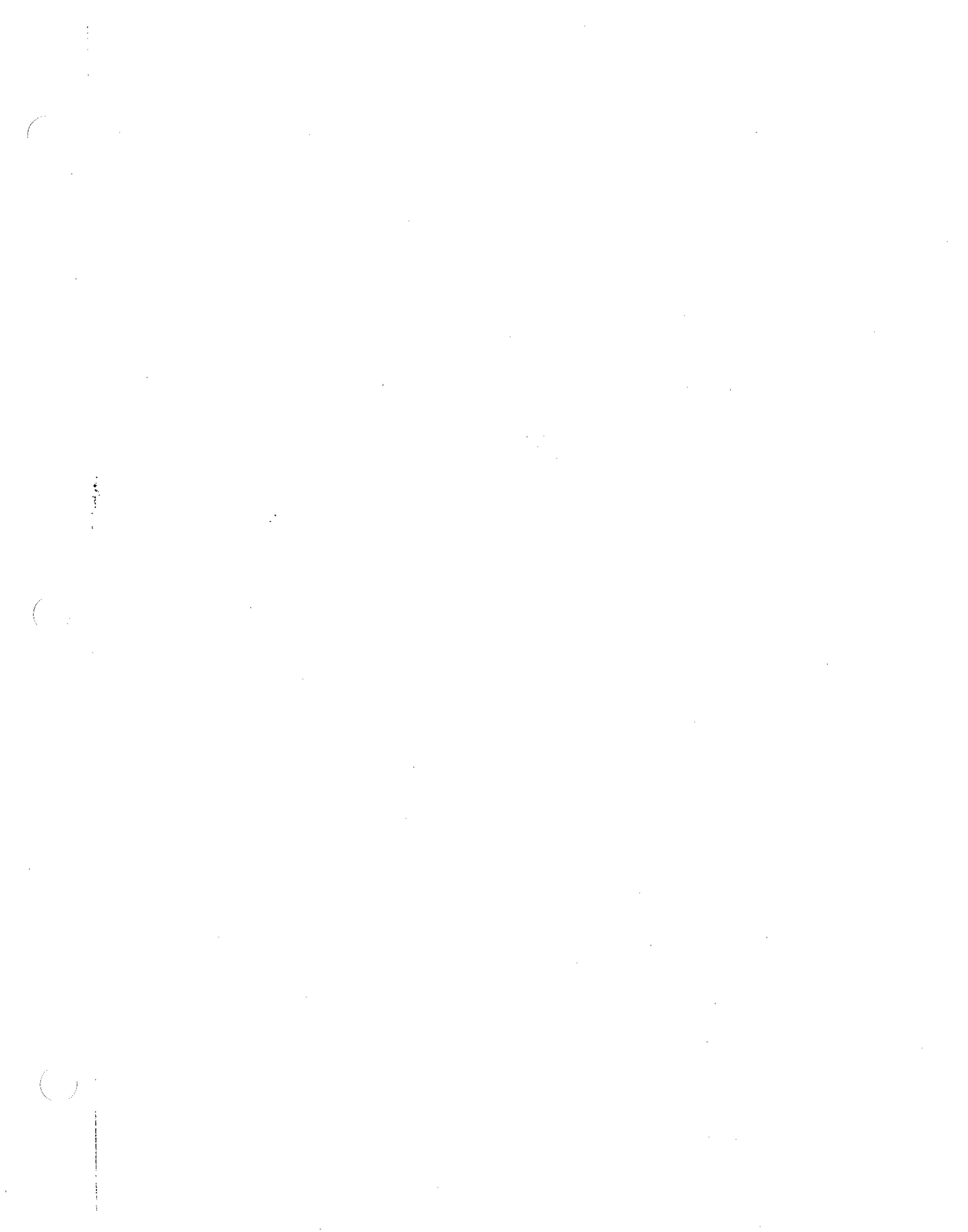
Question No. 31

Please indicate what the total pro forma adjusted test year gas sales and gas transportation revenues of $157,294,349.77 would be if the Company had assumed normal weather to be the 25-year average of 1981 – 2005 and had used 65 degrees as the reference point for HDD.

Response of Columbia Gas of Kentucky:

Throughput volume changes from 33,970,051.3 to 34,015,813.4, an increase of 45,761.1 Mcf.

Revenue changes from $157,294,349.77 to $157,712,364.12, an increase of $418,014.35.



Attorney General Data Request Set 1
Question No. **32**
Columbia Gas of Kentucky Respondent: **Kelly Humrichouse**

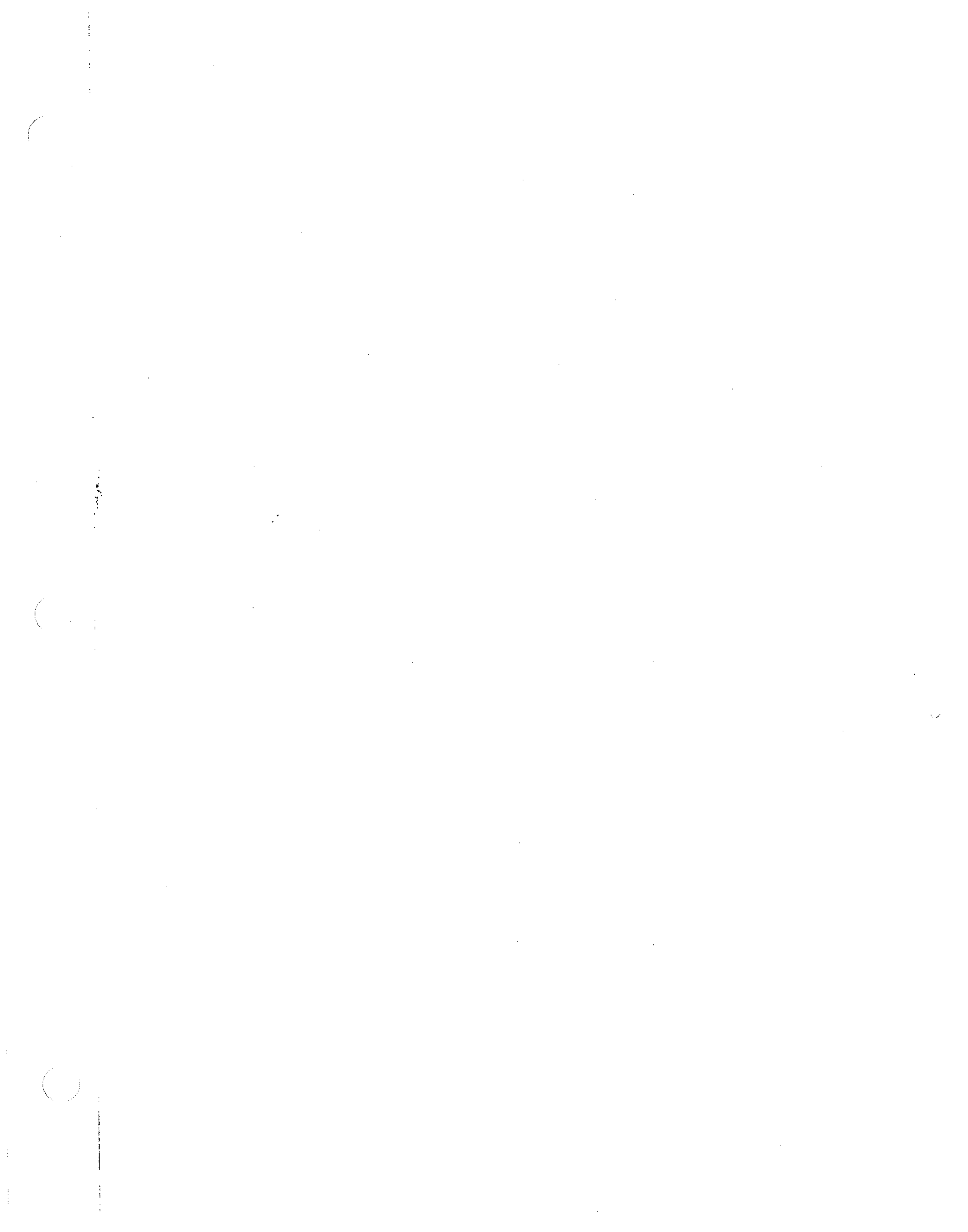
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 32

Please provide the KPSC assessment rate currently in effect and the rate *expected to be in effect for 2007. In addition, provide the basis for the latter rate.*

Response of Columbia Gas of Kentucky:

The PSC Assessment rate of 0.001643 represents the most recent assessment received by Columbia Gas of Kentucky and covers the period July 1, 2006 through June 30, 2007. The Company will receive notification of the assessment rate to be used for the period July 1, 2007 through June 30, 2008 sometime in June 2007.



BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 33

For the test year and each of the years 2002, 2003, 2004, 2005 and 2006 (all actual data), please provide the following information regarding uncollectible data:

a. Reserve account balance at beginning of year.
b. *Charges to the reserve account.*
c. Credits to the reserve account.
d. Current year provision (accrual)
e. Reserve account balance at end of year.
f. Total revenues subject to uncollectibles (indicate customer class revenues, e.g., residential, commercial, public authority, etc.)
g. Percent of provision (accrual) to total revenue (line d / line f)

Response of Columbia Gas of Kentucky:

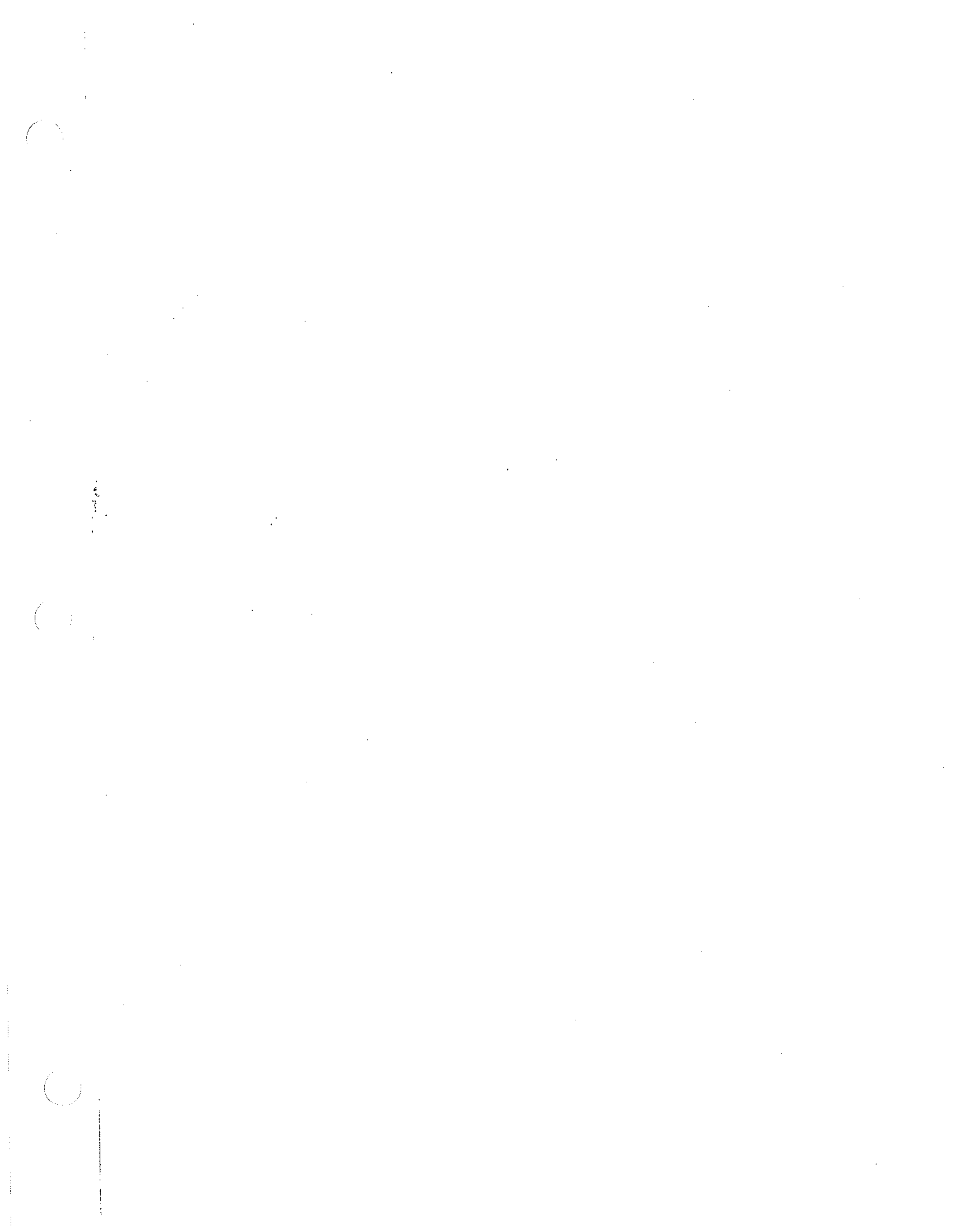
Line Item	Date	Beginning Balance (a)	Accrual (d)	Charge-offs (b)	Recoveries (c)	Ending Balance (e)
1	12/31/2002	320,602	(8,001)	786,237	550,900	77,264
2	12/31/2003	77,264	994,996	1,307,003	538,594	303,851
3	12/31/2004	303,851	1,194,997	1,943,076	798,396	354,168
4	12/31/2005	354,168	984,998	1,530,085	623,803	432,884
5	12/31/2006	432,884	1,131,001	1,999,311	750,227	314,801

(f)

Year	Total Revenue (000s)
2002	70,369
2003	87,087
2004	92,733
2005	105,159
2006	91,236

(g)

Year	Provision Accrual (000s)	Total Revenue (000s)	Provision/ Revenue
2002	(8)	70,369	(0.01137%)
2003	994	87,087	1.14138%
2004	1,194	92,733	1.28756%
2005	984	105,159	0.93572%
2006	1,131	91,236	1.23964%



BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 34

With regard to the uncollectible expense data shown on Schedule D-2.1, please provide the following information:

a. Basis for and all calculations underlying the accrual rate of 1.163918%.
b. Equivalent actual accrual rates for each of the 5 years prior to the test year, including the calculations for these rates.
c. Reconciliation between the actual test year per books uncollectible expense of $1,284,001 and the actual test year per books uncollectible expense of $1,707,449 shown on Schedule C-2.1, sheet 2, line 59. In addition, provide a dollar amount breakout of the specific components of the difference of $423,448.
d. Explanation as to why the adjustment is calculated for the residential revenues only.
e. Show how and where the actual test year per books EAP of 393,503 is included in the total Account 904 – *Uncollectible Accounts expenses of* $1,707,449.
f. Show and explain the derivation of the annualized EAP recovery in Account 904 of $509,141 and show where this derivation is reflected in the filing schedules (it is not shown on M-2.2, pages 5 & 23, as indicated on Schedule D-2.1, sheet 5, line 8).

Response of Columbia Gas of Kentucky:

(a) Columbia Gas of Kentucky, Inc. (CKY) charges off accounts for residential customer receivables in excess of 120 days outstanding from the initial billing date (calendar days). Therefore, the December Provision for Uncollectible Accounts should reflect the portion of receivables recorded for September through December that will not be collected. The net charge-offs for the twelve month ended period (TME) December, divided by the TME August revenues, provides the most recent experience factor. This experience factor is multiplied by the September through December revenues to provide the needed balance of the provision for uncollectible account.

	(000s)
Residential Billed Sales 12 months ended August, 2006	107,320
Plus Unbilled Residential Sales August, 2006	1,580
Less Unbilled Residential Sales August, 2005	(1,590)
Subtotal	107,310
Divided by Net Charge-offs 12 months ended December, 2006	÷ 1,249
Experience Ratio	1.163918%

(b) Experience ratio

2001	1.269475%
2002	0.335082%
2003	0.963468%
2004	1.204971%
2005	0.996231%

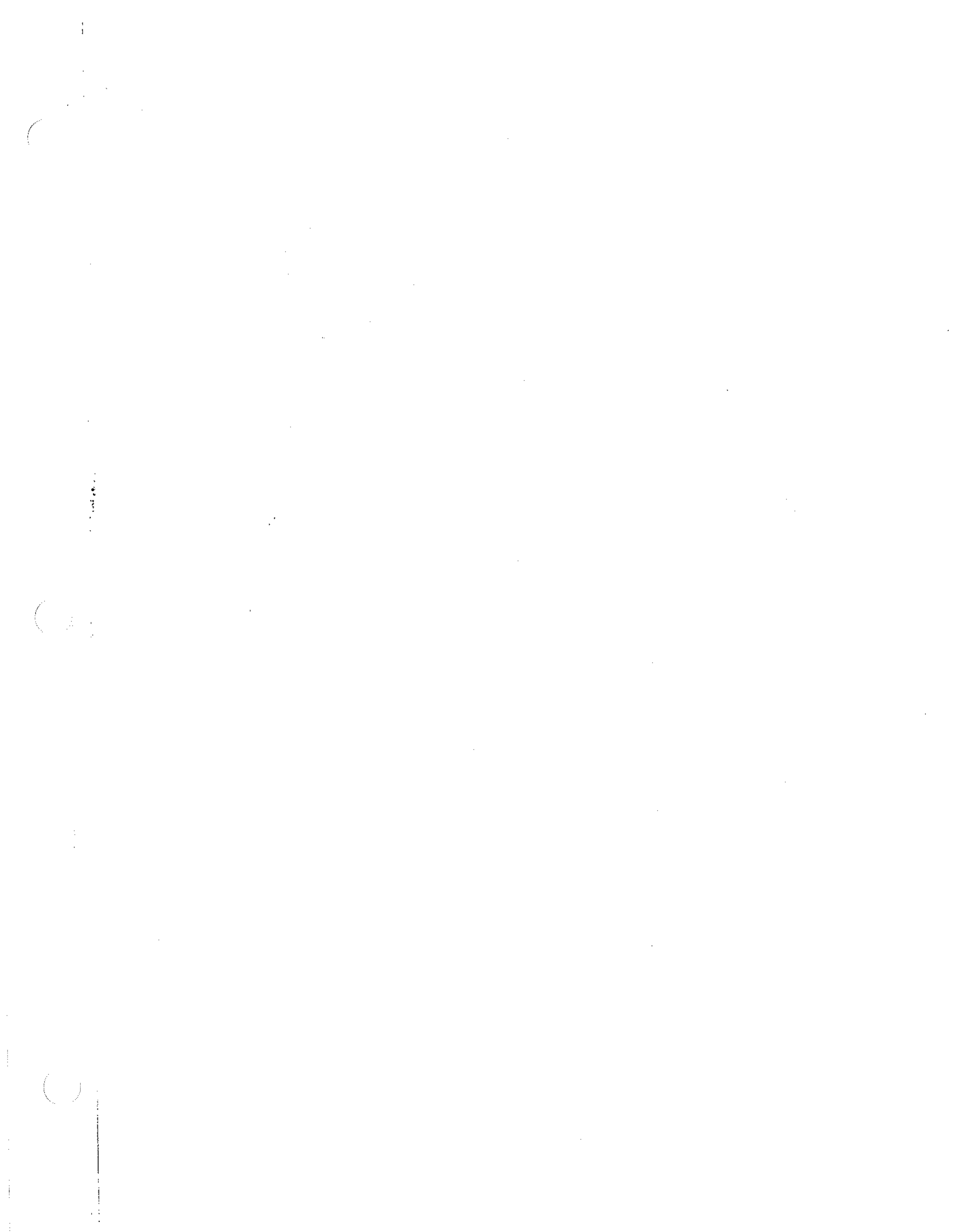
(c) See the table below for reconciliation.

	Amount $
Residential & low pressure commercial	1,284,001
Energy Assistance Program	393,503
High pressure commercial	29,945
Total account 904 per test year	
Schedule C-2.1, page 2	1,707,449

(d) CKY utilizes only the residential customer class accounts receivable information in the above calculation. A study of historical data concluded that residential customers have a more consistent pattern for non-pay. Using commercial and industrial information in the calculation caused aberrations among the years. Consequently, commercial and industrial receivables are reviewed on a case by case basis and separate uncollectible reserves are recorded for those accounts as needed.

(e) Costs of the EAP are deferred to a regulatory asset. As customers are billed, the recovery is booked to account 904. Please see the reconciliation above.

(f) The reference on Schedule D-2.1, sheet 5, line 8 is incorrect. The reference should be pages 3 and 23. The amount on page 3 as shown in Column k, Line 7 is $388,030.74 and the amount on page 23 as shown in Column k, Line 7 is $121,110.11. These two numbers added together total the $509,140 as shown in Schedule D-2.1, sheet 5, line 8. The amounts are arrived at by applying the EAP surcharge rate of 5.79 cents to the applicable sales volume for residential customers.



**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 35

With regard to WPD-2.2, sheet 4 of 8, please provide the actual Direct O&M Percentage (equivalent to the actual test year percentage of 72.21%) for each of the years 2002 through 2006.

Response of Columbia Gas of Kentucky:

Please refer to 2007-00008 AG Set 1-035 Attachment 1 for the requested information.

COLUMBIA GAS OF KENTUCKY, INC.
CASE NO. 2007-00008
O&M EXPENSE PERCENTAGES FOR DIRECT & INDIRECT PAYROLL
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, 2003, 2004, 2005, 2006

LINE NO.	DESCRIPTION	2002	2003	2004	2005	2006
1	CONSTRUCTION PAYROLL	1,817,708	2,117,133	2,225,356	2,249,062	1,988,432
2	PLANT REMOVAL	144,507	167,800	272,920	210,388	365,414
3	OTHER ACCOUNTS	(279,198)	104,251	213,077	812,770	0
4	CLEARED TO CONSTRUCTION	14,991	14,096	17,121	23,451	24,527
5	CLEARED TO PLANT REMOVAL	1,766	1,598	2,732	2,845	4,235
6	TOTAL CAPITALIZED PAYROLL	1,699,774	2,404,878	2,731,206	3,298,516	2,382,608
7	O&M PAYROLL	7,728,473	6,620,397	6,644,701	7,073,605	6,175,127
8	CLEARED TO O&M	48,534	35,287	40,033	53,103	63,745
9	LESS: A&G PAYROLL	443,022	237,895	596,319	1,000,348	528,569
10	TOTAL EXPENSED DIRECT PAYROLL	7,333,985	6,417,789	6,088,415	6,126,360	5,710,303
11	TOTAL CKY PAYROLL	9,033,759	8,822,667	8,819,621	9,424,876	8,092,911
12	DIRECT O&M PERCENTAGE (LINE 10 / LINE 11)	81.18%	72.74%	69.03%	65.00%	70.56%

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 36

With regard to WPD-2.2, sheet 3 of 8, please provide (total annual amounts only) the actual overtime hours, normal pay amount, overtime pay and premium pay for each of the years 2002 through 2006.

Response of Columbia Gas of Kentucky:

Year	Overtime Hours	Normal Pay	Overtime Pay	Premium Pay
		$	$	$
2002		Data not available.		
2003	37,724	7,942,406	1,031,711	14,565
2004	34,932	8,069,821	1,009,579	24,128
2005	27,486	8,161,747	827,769	82,214
2006	26,399	7,288,919	806,236	173,856

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 37

Please provide the actual number of employees (in total and as broken out by employee category) for each of the months from January 2003 through February 2007.

Response of Columbia Gas of Kentucky:

Please refer to 2007-00008 AG Set 1-037 Attachment 1 for the requested information.

Month/Yr	Exempt	Non-Exempt Clerical (Admin/Tech)	Non-Exempt Manual (BU)	Total
January-03	30	49	98	177
February-03	30	49	98	177
March-03	31	49	98	178
April-03	31	52	98	181
May-03	31	51	98	180
June-03	30	51	95	176
July-03	30	51	95	176
August-03	30	49	94	173
September-03	30	51	94	175
October-03	30	48	94	172
November-03	30	54	94	178
December-03	30	54	93	177
January-04	30	51	92	173
February-04	30	51	92	173
March-04	30	50	92	172
April-04	30	50	92	172
May-04	30	49	92	171
June-04	30	49	91	170
July-04	30	47	91	168
August-04	30	47	91	168
September-04	27	52	91	170
October-04	26	52	91	169
November-04	26	52	91	169
December-04	26	51	91	168
January-05	27	51	91	169
February-05	27	51	91	169
March-05	27	51	91	169
April-05	28	50	91	169
May-05	28	50	91	169
June-05	28	50	91	169
July-05	28	50	91	169
August-05	28	49	91	168
September-05	28	49	90	167
October-05	27	49	90	166
November-05	27	49	89	165
December-05	26	29	89	144
January-06	27	29	88	144
February-06	27	29	88	144
March-06	27	29	88	144
April-06	27	29	88	144
May-06	26	21	89	136
June-06	27	19	89	135
July-06	27	19	89	135
August-06	27	19	89	135
September-06	27	19	88	134
October-06	27	20	87	134
November-06	27	20	86	133
December-06	26	19	85	130
January-07	24	18	85	127
February-07	23	18	84	125

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 38

Please provide filing requirement Schedule G-1 (details about the test year payroll cost, employee benefits and payroll taxes) and Schedule G-2 (payroll analysis data for the test year as compared to the 5 years prior to the test year regarding man hours, labor dollars, employee benefits, payroll taxes and employee levels). [Note: while the Company claims that this filing requirement information is not a requirement of an historic test period filing, the AG is seeking this same information through this request for information].

Response of Columbia Gas of Kentucky:

Please refer to 2007-00008 AG Set 1-038 Attachment 1 for the requested information.

Columbia Gas of Kentucky, Inc.
Case No. 2007-00008
Payroll Costs
For the Twelve Months Ended September 30, 2006

		Operating Expenses				
Line No.	Description	Total Company Unadjusted ($)	Jurisdictional (%)	Jurisdictional Base Period Unadjusted ($)	Adjustments ($)	Jurisdictional Base Period Adjusted ($)
1	**PAYROLL COSTS**					
2	Labor	6,191,038	100%	6,191,038	70,225	6,261,263
3	Profit Sharing	(18,421)	100%	(18,421)	0	(18,421)
4	Total Payroll Costs	6,172,617		6,172,617	70,225	6,242,842
5	**EMPLOYEE BENEFITS**					
6	Pension & Retirement Income Plan	(127,370)	100%	(127,370)	111,570	(15,800)
7	Employee Insurance Plans	1,905,614	100%	1,905,614	147,505	2,053,119
8	Thrift Plan Contributions	212,769	100%	212,769	7,925	220,694
9	Total Employee Benefits	1,991,013		1,991,013	267,000	2,258,013
10	**PAYROLL TAXES**					
11	F.I.C.A.	500,733	100%	500,733	21,891	522,624
12	Federal Unemployment	3,935	100%	3,935	0	3,935
13	State Unemployment	4,200	100%	4,200	0	4,200
14	Total Payroll Taxes	508,868		508,868	21,891	530,759
15	Total Payroll Costs	8,672,498		8,672,498	359,116	9,031,614

Columbia Gas of Kentucky, Inc.
Case No. 2007-00008
Payroll Analysis by Employee Classification/Payroll Distribution Company
For the Twelve Months Ended September 30, 2006

Line No	Description	Base Period Sept. 30, 2006 ($)	% Change	Most Recent Five Calendar Years 2006 ($)	% Change	2005 ($)	% Change	2004 ($)	% Change	2003 ($)	% Change	2002 ($)
1	**TOTAL COMPANY**											
2	**MANHOURS**											
3	Straight Time Hours	300,517	-5.02%	285,441	21.59%	347,054	3.28%	358,440	3.55%	371,159	3.27%	383,314
4	Overtime Hours	26,925	-1.95%	26,399	4.12%	27,486	27.09%	34,932	7.99%	37,724	-16.52%	31,493
5	Total Man Hours	327,442	-4.76%	311,840	20.11%	374,540	5.03%	393,372	3.94%	408,883	1.45%	414,807
6	Ratio of Overtime Hours											
7	To Straight-Time Hours	8.960%		9.248%		7.920%		9.746%		10.164%		8.216%
8	**LABOR DOLLARS**											
9	Straight Time Hours	7,689,661	-2.95%	7,462,775	10.47%	8,243,961	-1.82%	8,093,949	-1.69%	7,956,971	3.22%	8,212,908
10	Overtime Hours	824,363	-2.20%	806,236	2.67%	827,769	21.96%	1,009,579	2.19%	1,031,711	-5.41%	975,905
11	Total Man Hours	8,514,024	-2.88%	8,269,011	9.71%	9,071,730	0.35%	9,103,528	-1.26%	8,988,682	2.23%	9,188,813
12	Ratio of Overtime Hours											
13	To Straight-Time Hours	10.720%		10.803%		10.041%		12.473%		12.966%		11.883%
14	O&M Labor Dollars	6,191,038	-0.26%	6,175,127	14.55%	7,073,605	-6.06%	6,644,701	-0.37%	6,620,397	16.74%	7,728,473
15	Ratio of O&M Labor Dollars											
16	To Total Labor Dollars	72.716%		74.678%		77.974%		72.990%		73.653%		84.107%
17	**EMPLOYEE BENEFITS**											
18	Total Employee Benefits	2,639,107	-11.60%	2,332,861	52.15%	3,549,415	-1.24%	3,505,374	-3.91%	3,368,336	-17.49%	2,779,277
19	Employee Benefits Expensed	1,972,592	-12.91%	1,717,918	57.00%	2,697,100	-0.90%	2,672,811	-4.67%	2,548,111	-11.32%	2,259,661
20	Ratio of Employee Benefits											
21	Expensed To Total Employee											
22	Benefits	74.745%		73.640%		75.987%		76.249%		75.649%		81.304%
23	**PAYROLL TAXES**											
24	Total Payroll Taxes 1/	694,868	-0.88%	688,775	1.57%	699,605	1.08%	707,127	4.87%	741,588	4.80%	777,202
25	Payroll Taxes Expensed	508,868	-0.88%	504,401	1.57%	512,335	1.08%	517,843	4.87%	543,080	4.80%	569,161
26	Ratio of Payroll Taxes											
27	Expensed to Total Payroll											
28	Taxes	73.232%		73.232%		73.232%		73.232%		73.232%		73.232%
29	**EMPLOYEE LEVELS**											
30	Average Employee Levels	144	-4.17%	138	20.29%	166	2.41%	170	4.12%	177	6.21%	188
31	Year End Employee Levels	134	-2.99%	130	10.77%	144	16.67%	168	5.36%	177	2.82%	182

1/ The Total Payroll Tax dollars for the years 2002 through 2006 are not readily available. For that reason we have inflated the payroll tax expense dollars for these years by the test year ratio.

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 39

With regard to incentive compensation programs offered to the employees of Columbia Gas of Kentucky, please provide the following information:

a. Management summary of the various types of incentive compensation programs offered by the Company to its employees. For each separate incentive compensation program offered, this management summary should include descriptions of the type and level and employees that may participate in the program, as well as the type of performance goals that must be achieved in order to receive incentive compensation from the particular program.

b. Copies of all internal Company documents describing each of the incentive compensation programs offered by the Company to its employees.

c. Actual incentive compensation expenses (in total and broken out by incentive compensation program type) booked by the Company in each of the years 2002 through 2006, in the test year, and in the pro forma adjusted test year.

d. Percentage and dollar portion of incentive compensation expenses claimed for the pro forma adjusted test year in this case ($279,000) that is a function of the achievement of corporate financial performance goals. In addition, describe these financial performance goals.

Response of Columbia Gas of Kentucky:

a. The primary incentive program throughout Columbia Gas of Kentucky (CKY), as well as throughout all of NiSource, is the Corporate Incentive Plan (CIP). All CKY employees participate in this plan. The CIP is offered annually and goals are set at the individual level as well as company level. Each job is assigned a job scope level that is based on the specific requirements of the job. Each job scope level is linked to an incentive range that also provides additional earning potential as a percentage of base salary (percentage of total salary for non-exempt employees) if certain corporate, business unit and individual goals are met, as set each year by the NiSource Board of Directors and through

agreement between each employee and his or her supervisor. The corporate goal varies, but is often based on earnings or financial performance. Individual goals are set through the performance management process utilizing performance management worksheets. Each year employees and their supervisors agree to goals for that year. For exempt employees, these goals and the employees overall performance are key input into the incentive payout. Goals typically include measures of customer service, cost containment, productivity, safety and reliability.

b. Please see Attachment B.

c. The CIP incentive compensation booked by the Company in each of the years 2002 through 2006 is as follows:

CIP	
2002	$224,000
2003	$220,862
2004	$328,235
2005	$(27,765)
2006	$113,893

d. 100% of the claimed amount of the CIP incentive compensation, or $279,000, is based upon the achieving corporate financial goals. The key financial number for the 2007 NiSource Corporate Incentive Plan participants is net operating earnings. For incentive plan purposes, this number will be adjusted to account for the cost of the incentive pool and to account for weather variances from normal weather as reflected in the 2007 financial plan.

NiSource Corporate Incentive Plan
(Restated, with administrative changes only, effective January 1, 2007)

1. Purpose.

NiSource Inc. ("Company") established the NiSource Corporate Incentive Plan ("Plan") to provide additional compensation for employees who influence the profitability of the Company and its affiliates (individually, "Employer" and collectively, "Employers").

2. Administration.

The Plan is administered by the Officer Nomination and Compensation Committee ("Committee") of the Board of Directors of the Company ("Board"), which, subject to action of the Board, has complete discretion and authority with respect to the Plan and its application, except to the extent that discretion is expressly limited by the Plan.

3. Eligibility for Participation.

The participating group of employees ("Participants") under the Plan is comprised of exempt and non-exempt employees of the Company and its affiliates, excluding any employee who has received a last chance letter, final notice letter or equivalent during the Plan year, certain exempt employees who participate in other specialized functional incentive plans and bargaining unit employees of Kokomo Gas and Fuel Company. The Committee, in its sole discretion, shall determine each calendar year the identity of the Participants. The Committee may add additional employees, and remove employees, as Participants during each calendar year.

Notwithstanding the previous paragraph, an employee described above shall be a "Limited Participant" if he or she has received suspension(s) without pay of five or more cumulative days during the Plan year. Any Participant not covered under the preceding sentence is a "Full Participant."

4. Determination of Incentive Payment.

The incentive payment calculation is shown on Exhibit I attached hereto. The Plan is predicated on establishing an incentive pool based on achievement by the Company of a financial trigger, as shown on Exhibit I, for the applicable calendar year, up to a maximum incentive pool established by the Committee. If the financial trigger is met or exceeded for a calendar year, an incentive pool is created for such calendar year. Each Participant's incentive payment from the incentive pool will be based on such Participant's status (*i.e.*, exempt or non-exempt, Employer and job scope level) as of December 31 of the calendar year on which the incentive payment is based.

The incentive payment for a Participant who is an exempt employee is divided into two parts. The first part will be calculated based on a formula set forth in Exhibit I. The remainder of the Participant's potential incentive payment is drawn from a portion of the incentive pool ("Discretion Pool") allocated to the Participant's manager, in the discretion of the Executive Council of the Company ("Executive Council"), and allocated by such manager among the Participants supervised by the manager. The amount of the Discretion Pool will be determined by the Executive Council, and may be allocated based on the performance of the applicable

business unit. The allocation of the Discretion Pool among the Participants in the business unit will be determined by the manager of such business unit based on individual performance of each Participant in the business unit. The discretion exercised by the Executive Council and each manager in this respect is conclusive.

The incentive payment for a Participant who is a non-exempt employee will be awarded to the Participant on a calculated, formula basis set forth in Exhibit I.

Any Participant who terminates employment with the Employers and their affiliates due to death, disability or retirement, pursuant to an Employer's qualified retirement plan, during a calendar year will be deemed a Participant on December 31 of such calendar year, and will receive a prorated calculated incentive payment for such year based on his or her Eligible Earnings as determined pursuant to Exhibit I, through the date of termination of employment.

5. Distribution of the Incentive Payment.

The elements of each incentive payment, namely, (1) the calculated incentive payment amount and (2) the discretionary incentive payment amount, if applicable, are distributable to the Participant, or his or her beneficiary, in cash in a single sum as soon after the end of the applicable calendar year as practicable, in the same manner as payroll.

6. Continuity of the Plan.

Although it is the present intention of the Company to continue the Plan in effect for an indefinite period of time, the Company reserves the right to terminate the Plan in its entirety as of the end of any calendar year or to modify the Plan as it exists from time to time, provided that no such action shall adversely affect any incentive payment amounts previously earned in a preceding calendar year under the Plan.

7. Notices.

Any notice required or permitted to be given by the Company or the Committee pursuant to the Plan shall be deemed given when personally delivered or deposited in the United States mail, registered or certified, postage prepaid, addressed to the Participant, his or her beneficiary, executors, administrators, successors, assigns or transferees, at the last address shown for the Participant on the records of the Company or subsequently provided in writing to the Company.

8. Withholding.

The Company may withhold from any incentive payment under the Plan amounts sufficient to satisfy applicable withholding requirements under any federal, state or local law, and deductions as may be required pursuant to agreement with, or with the consent of, a Participant, including any elective deferrals under the NiSource Inc. Retirement Savings Plan and the NiSource Inc. Executive Deferred Compensation Plan.

9. **Miscellaneous Provisions.**

(a) No incentive payment under the Plan shall be subject in any manner to anticipation, alienation, sale, transfer, assignment, pledge, encumbrance or charge prior to actual receipt thereof by the payee; and any attempt to so anticipate, alienate, sell, transfer, assign, pledge, encumber or charge prior to such receipt shall be void; and the Company shall not be liable in any manner for or subject to the debts, contracts, liabilities, engagements or torts of any person entitled to any incentive payment under the Plan.

(b) Nothing contained herein will confer upon any Participant the right to be retained in the service of an Employer or any affiliate thereof nor limit the right of an Employer or any subsidiary thereof to discharge or otherwise deal with any Participant without regard to the existence of the Plan.

(c) The Plan shall at all times be entirely unfunded and no provision shall at any time be made with respect to segregating assets of an Employer or any affiliate thereof for payment of any incentive payments hereunder. No Participant or any other person shall have any interest in any particular assets of an Employer or any affiliate thereof by reason of the right to receive an incentive payment under the Plan and any such Participant or any other person shall have only the rights of a general unsecured creditor of an Employer or any affiliate thereof with respect to any rights under the Plan.

(d) Any portion of the incentive pool not allocated to Participants for a given calendar year shall remain a general asset of the Company.

10. **Governing Law.**

The provisions of the Plan shall be construed and interpreted according to the laws of the State of Indiana, except as preempted by federal law.

IN WITNESS WHEREOF, the Company has caused the Plan to be executed in its name by its duly authorized officer this 10th day of April, 2007, effective as of the 1st day of January, 2007.

NISOURCE INC.

By:

(4)

Exhibit I

2007 Incentive Calculation

Financial trigger: NiSource Inc. net operating earnings per share of $1.35 for the year ended December 31, 2007, after accounting for the cost of the incentive pool under the Plan.

Incentive pool: Any net operating earnings above the financial trigger may, in the discretion of the Committee, fund the incentive pool.

Eligible Earnings: Nonexempt: Actual base earnings in 2007 plus all shift premiums and overtime pay. (Reimbursements for educational assistance, relocation, meals, mileage, incentive payments, and long-term disability payments are not included in base earnings.)

Exempt: Actual base earnings in 2007 (excluding any bonuses, incentives, or premium pay).

Payout Percentage: Each Participant has been given an incentive opportunity range, from trigger to maximum, and will be assigned his or her Payout Percentage as soon as practicable after the release of 2007 Company net operating earnings.

Incentive Payment:

(a) Each Full Participant who is a non-exempt employee will receive his or her incentive payment from the incentive pool as a fixed percentage of his or her Eligible Earnings, according to the following formula:

Non-Exempt Employee Incentive Payment = Eligible Earnings x Payout Percentage

(b) Each Full Participant who is an exempt employee is eligible to receive a benefit as follows:

- A portion of the benefit is derived from the following formula:

  Incentive Payment = Eligible Earnings X Payout Percentage X 50%

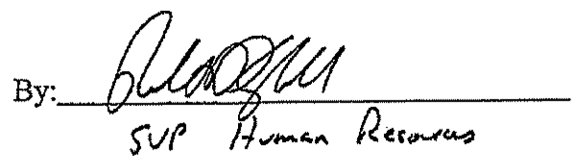
- An exempt employee may receive a portion of the incentive pool allocated to the Participant's manager, in the discretion of the Executive Council and allocated by the manager among the Participants supervised by the manager

(c) Each Limited Participant will receive 50% of the amount calculated in paragraph (a) or (b) above, as applicable.

(5)

IN WITNESS WHEREOF, the Company has caused this Third Amendment to be executed on its behalf, by its officer duly authorized, this 14th day of March, 2007.

NISOURCE INC.



By: ______________________
SVP Human Resources

(6)

March 8, 2006
DRAFT MySource Article and Q&A

2006 incentive compensation payout goal is $1.50 EPS for plan participants

The board of directors has approved the structure and financial trigger for the 2006 NiSource Corporate Incentive Plan, which will be based on the same design as the 2005 plan.

The key financial number for 2006 NiSource Corporate Incentive Plan participants is **reported net operating earnings per share (non-GAAP) of $1.50**. (Use of the term "EPS" in this article refers to reported " net operating earnings per share (non-GAAP).") NiSource has announced 2006 EPS guidance in the range of $1.45 to $1.55.Achieving $1.50 EPS (after accounting for the cost of the pool of dollars to be paid out to employees) means plan participants would be eligible to receive a payout "at trigger." Last year, NiSource achieved $1.38 EPS on a comparable basis.

If $1.50 EPS is achieved -- again, based on the ability to cover the cost of the employee incentive plan and maintain the $1.50 EPS level -- an incentive payout would be established. As in previous years, employees would receive a payout based on their incentive opportunity range.

NiSource has adopted net operating earnings (non-GAAP) as a key financial measure both internally and externally because it represents the fundamental earnings strength of the company. For purposes of the NiSource Corporate Incentive Plan, the measure will include an adjustment for weather. See NiSource's 2005 earnings news release for more information about how this measure is calculated as well as assumptions related to 2006 EPS guidance.

Frequently asked questions about how the incentive compensation plan works are available on *MySource.*

(Q&A below to be posted separately on MySource)

(7)

March 13, 2006
Final: MySource Article and Q&A

NiSource Board approves 2006 incentive compensation payout goal

The board of directors has approved the structure and financial trigger for the 2006 NiSource Corporate Incentive Plan, which will be based on the same design as the 2005 plan.

The key financial number for 2006 NiSource Corporate Incentive Plan participants is **net operating earnings per share (non-GAAP) of $1.50,** after accounting for the cost of the incentive pool and assuming normal weather as reflected in the Company's 2006 financial plan. (Use of the term "EPS" in this article refers to "net operating earnings per share (non-GAAP)" as adjusted for normal weather to the extent necessary). NiSource has announced 2006 EPS guidance in the range of $1.45 to $1.55. Achieving $1.50 EPS (after accounting for the cost of the pool of dollars to be paid out to employees) means plan participants would be eligible to receive a payout "at trigger." Last year, NiSource achieved $1.38 EPS on a comparable basis.

If $1.50 EPS is achieved -- again, based on the ability to cover the cost of the employee incentive plan and maintain the $1.50 EPS level -- an incentive payout would be established. *As in previous years, employees would receive a payout based on their incentive opportunity range.*

NiSource has adopted net operating earnings (non-GAAP) as a key financial measure both internally and externally because it represents the fundamental earnings strength of the company. For purposes of the NiSource Corporate Incentive Plan, the measure will be adjusted to the extent necessary to account for variances from normal weather as reflected in the 2006 financial plan. See NiSource's 2005 earnings news release for more information about how this measure is calculated as well as assumptions related to 2006 EPS guidance.

Frequently asked questions about how the incentive compensation plan works are available on *MySource.*

(Q&A below to be posted separately on MySource)

March 8, 2006

Questions and answers regarding the 2006 NiSource Corporate Incentive Plan

Q: Who is eligible for the plan?

A: The plan covers most NiSource employees. However, employees in the Kokomo union and certain exempt employees who are part of other specialized functional incentive plans do not participate.

Q: How does this year's plan compare to the 2005 plan?

A: This year's plan is very similar to last year's plan both in terms of approach and structure.

- Both the 2006 and 2005 plans are based on achieving our earnings per share target. This year's plan uses net operating earnings per share (non-GAAP), which is the standard measure we are using internally and externally to track our financial performance.
- A discretionary component for exempt employees will be based on individual and business unit performance. Nonexempt employees receive an across-the-board payout.

Q: What does "business unit performance" mean?

A: If there are sufficient differences in financial performance between individual business units, senior management may choose to distribute a greater share of the pool to higher performing companies or functional units.

Q: What does "after accounting for the cost of the pool of dollars to be paid out to employees" mean?

A: This is an important concept to understand. It means that the EPS level must include the cost of the pool of dollars to be paid out to employees. So, for the payout to occur, $1.50 EPS must be the minimum amount remaining after deducting the cost of the incentive compensation payouts that would be made to employees.

Q: What does "net operating earnings (non-GAAP)" mean?

A: Net operating earnings (non-GAAP) is a financial measure that NiSource defines as income from continuing operations (determined in accordance with Generally Accepted Accounting Principles, or GAAP), adjusted for certain items. NiSource uses net operating earnings (non-GAAP) as a reference point because this measure better represents the fundamental earnings strength of the company. NiSource uses the measure both externally for financial reporting and internally for planning, budgeting and reporting to the board of directors. For purposes of the NiSource Corporate Incentive Plan, a primary adjustment reflected in this measure is weather. Other adjustments may include restructuring charges, and impairment charges. See Schedule 1 and Schedule 2 of NiSource's 2005 earnings news release for more information about how this measure is calculated.

Q: The weather has been unfavorable toward NiSource's business during the first quarter so far. How will that potentially affect our incentive compensation opportunity for 2006?

A: For purposes of the NiSource Corporate Incentive Plan, net operating earnings per share (non-GAAP) will be adjusted for weather. Therefore, the weather impact will not affect the EPS measure used to determine whether employees receive an incentive compensation payout for 2006.

(9)

Q: Where can I find NiSource's reported "net operating earnings per share (non-GAAP)?

A: NiSource will be reporting net operating earnings per share (non-GAAP) on a quarterly and annual basis. These announcements, along with income statements detailing our financial results, will be available on MySource and the NiSource web site.

How the payout works

Q: Can you provide an example of how the payout works?

A: Each employee has an incentive opportunity range from trigger to maximum.

For exempt employees, if the pool corresponds to a payout at the trigger level, multiply:

- Your eligible earnings x
- Your trigger percent x
- 66 2/3% (two-thirds of the trigger amount)
- In addition, exempt employees may receive an additional discretionary amount, which is based on the business unit's performance and the employee's individual performance.

Non-exempt employees receive an across-the-board payout. For non-exempt employees, if the pool corresponds to a payout at trigger, multiply:

- Your eligible earnings x
- Your trigger percent.

Q: *What are "eligible earnings"?*

A: "Eligible earnings" or "total earnings" include actual base earnings during 2006 plus all shift premiums. (Examples of items not included in total earnings are: relocation, meals, mileage, incentive payments and long-term disability payments.)

(10)

Management Forum Talking Points
2nd Quarter Earnings Announcement
August 2, 2006

As you may have seen from NiSource's second quarter earnings release, we have shared difficult news about our 2006 earnings outlook.

Despite making solid progress on our four-part business plan, and reporting higher net operating earnings for the second quarter and six-month periods, it is highly unlikely that we will achieve our original net operating earnings estimate of $1.45 to $1.55 per share for 2006.

Unfortunately, missing our earnings estimate also means we will fall short of the target for a payout under the 2006 NiSource Incentive Plan.

I know this is frustrating and disappointing news for all of us, especially given the achievements our teams have made this year.

We are providing this news both internally and externally now in an effort to be as forthcoming and timely as possible in updating all our key stakeholders on the status of our business, our challenges, and what we intend to do about them.

We have had positive year-to-date performance, with revenue growth in our gas transmission and storage business and solid results in our electric business.

The key earnings challenge we face is reduced residential customer usage and spiking customer attrition in our gas distribution business. This is a problem affecting companies throughout the North American natural gas industry, and it is a focus for us and the entire natural gas industry.

The attached Q&A covers some of the key issues relating to usage and customer attrition, and I encourage you to review that information.

While the news today is disappointing, the issue is on the table so we can deal with it openly and aggressively.

I also encourage you to keep in mind that our fundamental business platform continues to be positive. We are committed to our long term strategy, and we are making progress.

On a call with our NiSource leadership team today, I stressed that we can't slow down. We need to remain focused and lean into our challenges. We will overcome this setback if we remain engaged, balanced and positive.

Again, I thank you again for your continued support and your focus as we move forward.

- Bob

Management Forum Key Messages
2nd Quarter Earnings Announcement
August 2, 2006

- As you may have seen from NiSource's second quarter earnings release, we have shared difficult news about our 2006 earnings outlook.
- Despite making solid progress on our four-part business plan, and reporting higher net operating earnings for the second quarter and six-month periods, it is highly unlikely that we will achieve our original net operating earnings estimate of $1.45 to $1.55 per share for 2006.
- Unfortunately, missing our earnings estimate also means we will fall short of the trigger for a payout under the 2006 NiSource Incentive Plan.
- I know this is frustrating and disappointing news for all of us, especially given the notable achievements our teams have made this year.
- We are providing this news both internally and externally now in an effort to be as forthcoming and timely as possible in updating all our key stakeholders on the status of our business, our challenges, and what we intend to do about them.
- We have had positive year-to-date performance, with revenue growth in our gas transmission and storage business and solid results in our electric business.
- The key earnings challenge we face is reduced residential customer usage and spiking customer attrition in our gas distribution business.
- This is a problem affecting companies throughout the North American natural gas industry, and it is a focus for us and the entire natural gas industry.
- For NiSource, we project that the combined impact of conservation and customer attrition will reduce our net revenues for 2006 by nearly $40 million, or 10 cents per share, compared with the levels underlying our initial earnings guidance for the year.
- We have developed a Q&A that covers some of the key issues relating to usage and customer attrition, and I encourage you to review that information and we can discuss it further.
- While the news today is disappointing, I can assure you that our distribution business unit teams are committed to dealing aggressively with the usage issue in a thoughtful and balanced manner.
- I also encourage you to keep in mind that our fundamental business platform continues to be solid. We are committed to our long term strategy, and we are making steady progress.
- On our leadership call Wednesday, Bob emphasized that we can't slow down. We need to remain focused and lean into our challenges. We will overcome this setback if we remain engaged, balanced and positive.
- Thank you again for your continued support and focus as we move forward.

MDT Message for All OH and KY Operations Centers
To be sent December 01

A message from Dave Monte

The recent note from Bob Skaggs about incentive compensation demonstrates the strong desire of NiSource, Bob and the Board of Directors to recognize and reward the hard work and efforts of our employees.
Bob announced that the board has approved a change to the Corporate Incentive Plan to allow for a payout at a lower earnings threshold for 2006. The new threshold level could result in a payout at up to 50 percent of trigger incentive levels.
As in the past, each union will be afforded the opportunity to participate.
The modified incentive plan provides a realistic opportunity for payout at some level to occur following our 2006 earnings announcement in late January.
The board recognizes all that you do to provide quality service to our customers and strong results for our shareholders.
I'd like to join Bob in thanking you for your ongoing commitment.

(13)

To: Management Forum
(and Susequently Posted on MySource)

Dear Team:

I want to share some encouraging news from Tuesday's NiSource board of directors meeting.

In recognition of the strong contributions and tireless efforts of NiSource employees this year, the board approved a modification to the Corporate Incentive Plan to allow for a payout at a lower earnings threshold for 2006. The new threshold level could result in a payout at up to 50 percent of trigger incentive levels.

The board members took this action to recognize the tremendous efforts you and our entire NiSource team are putting forth to provide quality service to our customers and strong results for our shareholders. I couldn't agree with them more.

I know it was difficult news earlier this year when we announced that it was unlikely we would achieve our original 2006 EPS guidance in the range of $1.45 to $1.55, largely due to the unprecedented customer usage and attrition issues we have experienced this year. As you recall, the board had established a $1.50 EPS operating earnings goal for the Corporate Incentive Plan. Achieving that goal, after accounting for the cost of the pool of dollars to be paid out to employees, meant plan participants would be eligible to receive a payout at trigger.

Under the modified plan, if we achieve a reduced EPS threshold – again, based on the ability to cover the cost of the plan – an incentive payout would become available up to 50 percent of the normal payout level at trigger in the NiSource Corporate Incentive Plan. As in previous years, employees would receive a payout in February based on their incentive opportunity range.

While I cannot share the specific new threshold level with you at this time in light of the fact that we have withdrawn our earnings guidance for 2006, I can say that the modified incentive plan provides a realistic opportunity for a payout at some level to occur following our 2006 earnings announcement in late January.

The fact that the board took this action is a real tribute to your continued strong leadership, enthusiasm and focus on executing our four-point plan for long-term sustainable growth.

Thank you for your ongoing commitment.

BOB

Talking Points for Leaders
Base Pay Increase and Incentive Payout

Base Pay Performance Adjustment

- The NiSource Board has approved the **base pay performance adjustment** percentage for 2007 (3% for all exempt employees and 2.5% for non-exempt, non-union, non-manual employees).

- **Base pay increases** are effective March 1, 2007.

Incentive

- Remind employees that the NiSource Board has approved **an incentive payout at 50 percent of the normal payout at the trigger**, given all that we have accomplished and our 2006 performance.

- The board members took this action to recognize the tremendous efforts our entire NiSource team is putting forth to provide quality service to our customers and strong results for our shareholders.

Individual Performance Discussion

- Review the employee's individual performance and contribution to the department/function. Emphasize the critical role he or she plays on the team and within NiSource. Reference the employee's PMW as appropriate.

- Be positive! Give specific examples of areas the employee is doing well.

- Review the **Base pay increase** and explain it is effective 3/1/07 and will appear:
  - In the 3/31 pay check for employees paid monthly
  - For employees paid biweekly on normal pay schedule (3/2 or 3/9 accordingly).

- Inform employees of the **incentive payout** which will appear:
  - In the 2/28 pay check for employees paid monthly
  - For employees paid biweekly on normal pay schedule (3/2 or 3/9 accordingly).

  You may deliver written/printed salary information, if you choose.

- Reference the 2007 Performance Management process and review your work unit's goals and objectives for the upcoming year. Review the individual's role in helping to meet those goals. Link performance expectations to work unit goals.

(15)

Human Resources
01/30/2007 01:32 PM

To: Management Forum 1, Management Forum 2
cc:
Subject: INCENTIVE AND BASE PAY INFORMATION FOR LEADERS

As we discussed on the Management Forum call earlier today, the Board of Directors has approved **an incentive payout at 50 percent of the normal payout at the trigger**, given all that we have accomplished and our 2006 performance. In addition, the board has approved **base pay adjustments for 2007.**

The board members took this action to recognize the tremendous efforts our entire NiSource team is putting forth to provide quality service to our customers and strong results for our shareholders.

There are a number of key details we need to share with you as managers regarding this incentive pay out as well as the base pay increase process we are ready to roll out.

Please keep in mind:

- **On Feb. 1,** the Lotus Notes tool which you have used in previous years for this process will be open for you to cascade to your leadership teams.
- You will be able to complete both the **base pay performance increase** and **incentive payout** within this tool.
- **For the Incentive Payout:**
  - The NiSource Board of Directors has approved **an incentive payout** at 50 percent of the trigger.
  - The tool will allow you to move incentive dollars for exempt employees.
  - 2/3 of this payout is non-discretionary and fixed, and 1/3 is discretionary, allowing you to move dollars among employees based on performance, within your given pool of dollars. *As a reminder, non-exempt incentives are all non-discretionary and as allocated.*

- **For Base Pay performance increases:**

  - This year, the **base pay performance increase** pool of dollars is set at **3 percent for exempt employees** and **2.5 percent for non-exempt employees.**
  - Remember that these dollars are transferable so you can shift dollars to your high performers as long as the total budget is not exceeded.

- One enhancement this year is the inclusion of salary range information by individual to assist you in your decision-making process.

- Decisions for both base pay performance adjustments and incentive payouts should be made as soon as possible and **no later than the close of business on Feb. 12** to allow adequate time for approval and payroll processing.

- The Lotus Notes tool will be **locked down at the end of the day Feb. 12** and changes will not be permitted after that.

- Allocations will be approved and viewable in the Lotus Notes tool on **Feb. 16**. At that point, you may view, and if you wish, print out statements for your employees.

- Discussions with employees can begin on **Feb. 16** and should occur as soon as possible. Remember that incentive payouts will be viewable in the **Feb. 28** pay statement for employees paid monthly and in the **March 2** or **March 9** statement for employees paid biweekly. Keep in mind that with the **MyPay** tool, **employees can view their pay statements as early as Feb. 22** for those paid monthly, so it is important to share this information prior to that time.

Your Human Resources consultants are available to assist you with this process. Questions and concerns about the process can be directed to them.

For technical assistance with the application please contact the Help Desk at **1-877-357-3911.**

For issues with employee data please contact your HR consultant or **Hazel Arias** (**arias.h.2@cr.ibm.com**) or **Adriana Broutin** (**adrianab@cr.ibm.com**) at the HR Service Center.

Talking Points for Leaders 1-30-07.(

Do not respond to this mailbox, as it is not monitored.

(17)

Hazel Arias
02/19/2007 11:01 AM

To: Management Forum
cc:
Subject: Please communicate performance adjustments and incentives to employees

Monday, February 19

Performance adjustments and incentive payouts have been approved.

Read-only access to the Lotus Notes application has been restored so that you can confirm amounts, print employee summary sheets, and communicate to your employees. If you are printing employee summary sheets, note that the "**proposed**" line still appears in the system. However, **it will NOT print out on a hard copy.** To print, place a check mark next to the employee name(s) and click **Print**.

Please complete your notifications by the end of the day, Wednesday, February 21. The incentive payment will be reflected on February 28 for monthly paid employees and in the first pay in March for employees paid biweekly. It is very important that employees are notified by that date since they will be able to see their paychecks on **MyPay** as early as February 22. Performance adjustments, including lump sums, will be reflected on employees' first March paycheck.

Please forward this e-mail to your direct reports as appropriate.

Database link --->

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 40

With regard to WPD-2.3, sheet 1 of 2, please provide the following information:

a. Explanation of the derivation and basis of the pro forma incentive accrual for 2006 of $227,789.

b. Equivalent incentive accrual included in the approved 2007 budget.

c. Explanation of the derivation and basis of the pro forma profit sharing expense of $44,000. In addition, explain what the profit sharing represents and how it can be distinguished from the incentive accrual.

d. Basis for the assumed O&M expense ratio of 74.52% and reconciliation between this assumed ratio and the pro forma labor expense ratio of 72.21% used by the Company in this case.

e. Explanation as to why the Company did not book any positive incentive compensation in the test year.

f. Explanation of the reasons for the out-of-period $151,213 bonus accrual and $18,421 profit sharing accrual reversals booked in the test year.

Response of Columbia Gas of Kentucky:

a. NiSource Inc. ("Company") established the NiSource Corporate Incentive Plan ("Plan") to provide additional compensation for employees who influence the profitability of the Company and its affiliates. The funding of the Plan is predicated on an incentive pool based on achievement by the Company of a financial trigger for the calendar year. In 2006, the financial trigger was an operating earnings goal of $1.50 EPS. Achieving that goal after accounting for the cost of the pool dollars to be paid out to employees, meant plan participants would be eligible to receive a payout at trigger. The total payout at trigger for employees of Columbia Gas of Kentucky, Inc. was $227,789 and it was based on the multiplication of the employees' eligible earnings by their assigned payout percentage.

b. The accrual for the Plan that was included in the approved 2007 budget is $144,073.

c. Each year, NiSource, at its sole discretion, may make a profit sharing participation contribution of up to 1.5 percent of compensation for each employee who is eligible to participate in the 401(k) Savings Plan and the profit sharing contribution. All profit participation contributions will be made to the employee Company Stock Fund account.

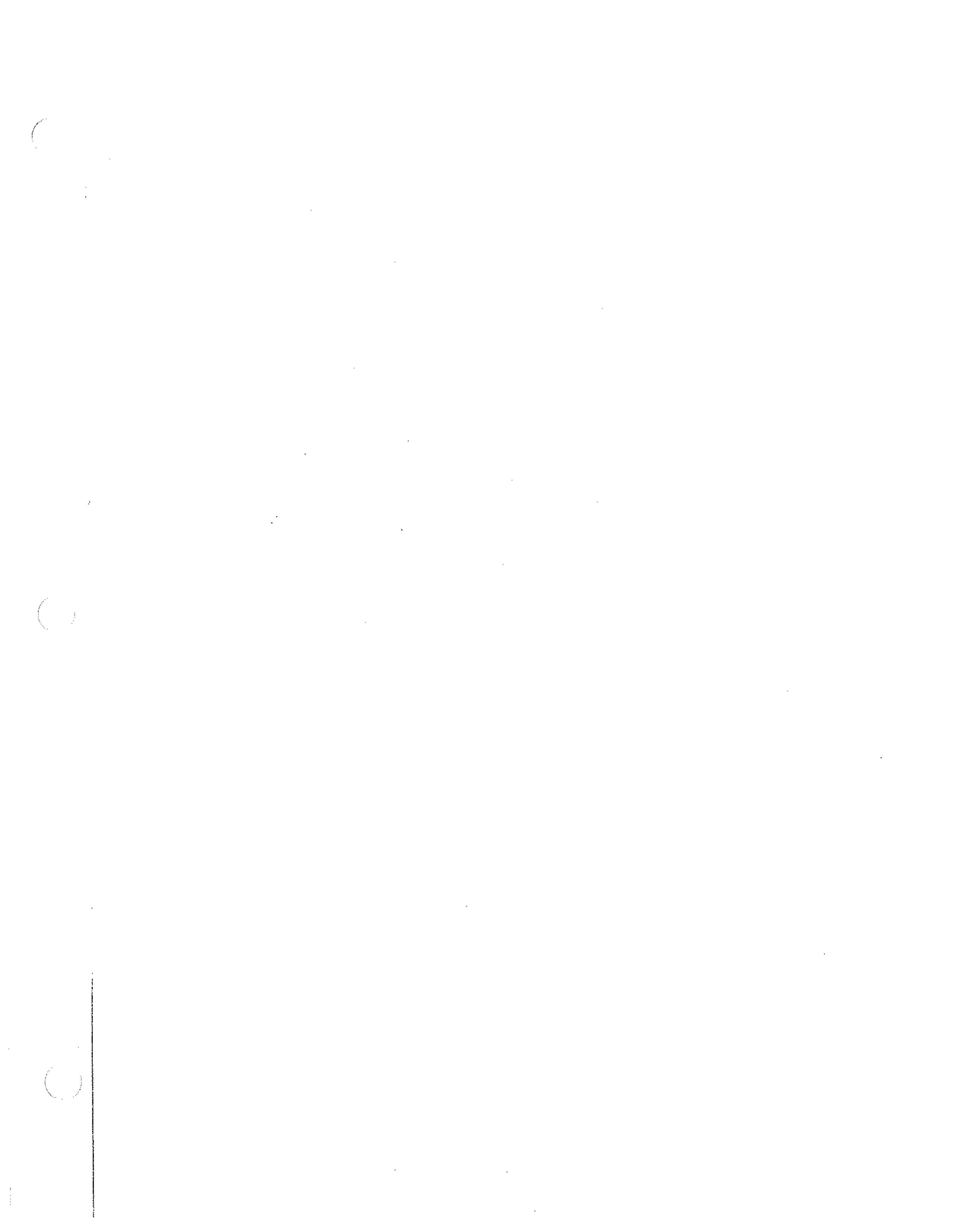
    i. Employees will receive the contribution as long as they are employed by NiSource on the last day of the year or retired, became disabled or died during the year.

    ii. The funding level is tied to the targets of the incentive compensation program. The Company accrues each year at the .5 percent of compensation level.

d. The 74.52% is a historic level used to capitalize incentive compensation whereas the 72.21% is the capitalization ratio experience during the test year.

e. An accrual is recognized during the calendar year when there is a high probability that incentive payout will occur. During the 12 months ending September 30, 2006, the probability that a payout for 2006 would occur was not present. The company did have a payout for 2006 performance with the accrual booked in December 2006.

f. During the first nine months of the calendar year 2005, the Company was accruing incentive costs based on the assumption that performance goal would be achieved. In October 2005, the incentive accruals were reversed. Please see WPD-2.3.



**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 41

Since the service and outsourcing agreement with IBM is for a 10-year period, explain the rationale for, and reasonableness of, the Company's proposal to amortize the associated one-time restructuring costs to implement the IBM contract.

Response of Columbia Gas of Kentucky:

In an Order issued by the Kentucky Public Service Commission in Columbia's 1984 general rate case, the Commission stated that it "...is eager to encourage all efforts which improve service to Columbia's customers or reduce costs". Customer service improvements will be or already have been recognized as a result of implementing various aspects of the IBM contract. Columbia also has been successful in maintaining or reducing its level of operating expense based upon a comparison of controllable O&M expense from the test year for this rate case to calendar 2004, the year prior to transition of functions to IBM.

The Commission's eagerness to encourage such efforts was again demonstrated through the approval of recovery related to one-time costs associated with a staff reduction of 27 Information Technology employees at LG&E. The Commission's Order in that case, Case No. 2003-0043, allowed LG&E a 3 year amortization of its one time costs.

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 42

On page 8 of her direct testimony, Ms. Taylor states that Corporate Services billed Columbia Gas of Kentucky $44,375 for cost of capital charges in the test year. In this regard, please provide the following information:

a. What overall cost of capital rate was used in the derivation of the test year cost of capital charge of $44,375?

b. What would be the pro forma test year Corporate Services cost of capital charge to Columbia Gas of Kentucky based on the Company's proposed overall cost of capital rate of 8.71% in this case?

Response of Columbia Gas of Kentucky:

a. The cost of capital amount of $44,375 represents Columbia Gas of Kentucky's portion of the interest on long-term debt of NCSC. The overall weighted cost of capital rate for NCSC long term debt was 5.87%. Cost of capital is allocated to affiliates in the same proportion that the direct and allocated labor to each affiliate bears to the aggregate of all direct and allocated labor.

b. NCSC costs are only related to the long-term debt issued to NCSC. All costs incurred by NCSC are billed to the affiliates at cost; therefore, NCSC cost of capital charges are not related to Columbia Gas of Kentucky's cost of capital rate.

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 43

To the extent that the actual and/or pro forma adjusted test year results include any expenses and/or capital expenditures directly or indirectly associated with the acquisition of Columbia Gas of Kentucky by NiSource, please quantify such expenses/capital expenditures, indicate where they are reflected in the filing schedules, and justify the reasonableness of including such costs for ratemaking purposes in this case.

Response of Columbia Gas of Kentucky:

Neither the actual nor the adjustments to the test year results proposed for recovery in this case include expenses or capital costs associated with the acquisition of Columbia Gas of Kentucky by NiSource.

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 44

NiSource's 2005 Form 10-K, page 84, paragraph 3 ("Restructuring Activities") states that ..." In 2000, these restructuring initiatives included a severance program, a voluntary early retirement program, and a transition plan to implement operational efficiencies throughout the company. In 2001, NiSource's restructuring initiatives focused on creating operating efficiencies in the Gas Distribution and the Electric Distribution segments and included the closure of the Mitchell Station in Gary, Indiana. During 2002, NiSource implemented a restructuring initiative which resulted in employee terminations throughout the organization mainly affecting executive and other management-level employees. In connection with these earlier restructuring initiatives, a total of approximately 1,600 management, professional, administrative and technical positions were identified for elimination. As of December 31, 2005, approximately 1,565 employees were terminated, of whom 3 employees were terminated during 2005." In this regard, please provide the following information:

a. Is the annualized cost savings impact of these 2000, 2001 and 2002 restructuring initiatives fully reflected in the proposed pro forma test year NCSC cost allocation to Columbia Gas of $10,275,013? If so, explain how this is so. If not, explain why not.

b. At which exact dates did NiSource start experiencing and booking the cost savings from these restructuring initiatives? Provide this information separately for the 2000, 2001 and 2002 restructuring initiatives.

c. Do the pro forma adjusted test year results include any expenses (e.g., amortizations of deferred one-time implementation and restructuring costs) associated with each of these 2000, 2001 and 2002 restructuring initiatives? If so, (1) quantify how much of these expenses are included in the NCSC costs allocated to Columbia Gas shown on Schedule D-2.8; (2) indicated on which line items in Schedule D-2.8 these expenses are included; (3) indicate whether the deferral and amortization of these expenses was authorized by the KPSC; and (4) indicate the expiration dates of these amortization expenses for each of the restructuring initiatives.

Response of Columbia Gas of Kentucky:

a. Yes, the annualized cost savings impact of these 2000, 2001 and 2002 restructuring initiatives are fully reflected in the proposed pro forma test year. Cost savings from these restructuring initiatives are not tracked and therefore are not able to be quantified; however, any cost savings related to these initiatives would be reflected in lower NCSC contract bill fees to Columbia Gas of Kentucky.

b. While any costs savings resulting from these restructuring initiatives cannot be classified and tracked separately on the books of Columbia, costs savings appear in the form of lower NCSC contract bill fees. Therefore, any costs savings were passed through on a ratable basis as the three restructuring initiatives were rolled out.

c. The pro forma adjusted test year results do not include any expenses related to the 2000, 2001 and 2002 restructuring initiatives. The three employees terminated during 2005 were not NCSC or Columbia Gas of Kentucky employees. These costs were not deferred and, as such, no authorization was sought for these expenses or received from the KSPC.

Attorney General Data Request Set 1
Question No. **45**
Columbia Gas of Kentucky Respondent: **Susanne M. Taylor, Kelly Humrichouse, Herb Miller**

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 45

NiSource's 2005 Form 10-K, page 84, paragraph 3 ("Restructuring Activities") states that ... In the fourth quarter of 2005, NiSource announced a plan to reduce its executive ranks by approximately 15% to 20% of the top-level executive group. In part, this reduction will come through anticipated attrition and consolidation of basic positions. NiSource recognized $2.9 million restructuring charge in the fourth quarter of 2005 for anticipated severance payments expected to be made in connection with this action." In this regard, please provide the following information:

a. Is the annualized cost savings impact of this 2005 employee reduction program fully reflected in the proposed pro forma test year NCSC cost allocation to Columbia Gas of $10,275,013? If so, explain how this is so. If not, explain why not.

b. At which exact dates in 2005 and 2006 did NiSource start experiencing and booking the cost savings from this employee reduction initiative?

c. Do the pro forma adjusted test year results include any expenses (e.g., amortizations of deferred one-time implementation and restructuring costs) associated with this employee reduction initiative? If so, (1) quantify how much of these expenses are included in the NCSC costs allocated to Columbia Gas shown on Schedule D-2.8; (2) indicated on which line items in Schedule D-2.8 these expenses are included; (3) indicate whether the deferral and amortization of these expenses was authorized by the KPSC; and (4) indicate the expiration date of these amortization expenses.

Response of Columbia Gas of Kentucky:

a. The severances related to this restructuring occurred prior to and during the test period, except for two individuals. As a result, the majority of these reductions in staff are reflected in the test year. Savings related to these severances are not tracked; therefore, no pro forma adjustments were reflected for severance adjustments.

b. NCSC began to record the employee severances in March 2006. Cost savings related to this restructuring initiative are not tracked. To the extent there are cost savings, these reductions are reflected in lower NCSC contract bills to Columbia Gas of Kentucky.

c. These restructuring costs are included on Schedule D-2.8, Sheet 2 of 2, Line 11, "Severance Costs" in the amount of $79,348 and in Line 13. These costs were not deferred nor authorization sought from the KSPC for deferral of these costs prior to this case. Witness Kelly L. Humrichouse is seeking authorization of such deferral on page 16 lines 6 through 11.

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 46

NiSource's 2005 Form 10-K, page 84, paragraph 3 ("Restructuring Activities") states that a result of the 10-year service and outsourcing agreement with IBM ..."a total reduction of approximately 1,000 positions is expected through the transition period. In this regard, please provide the following information:

a. Is the annualized cost savings impact of the 1000 employee reduction fully reflected in the proposed pro forma test year NCSC cost allocation to Columbia Gas of $10,275,013? If so, explain how this is so. If not, explain why not.

b. At which exact dates in 2005 and 2006 did NiSource start experiencing and booking the cost savings from this employee reduction initiative associated with the IBM contract?

c. Do the pro forma adjusted test year results include any expenses (e.g., amortizations of deferred one-time implementation and restructuring costs) associated with the IBM contract? If so, (1) quantify how much of these expenses are included in the NCSC costs allocated to Columbia Gas shown on Schedule D-2.8; (2) indicated on which line items in Schedule D-2.8 these expenses are included; (3) indicate whether the deferral and amortization of these expenses was authorized by the KPSC; and (4) indicate the expiration date of these amortization expenses.

Response of Columbia Gas of Kentucky:

a. Please refer to response provided for Attorney General Data Request Set 1 Question No 47 part a.

b. This employee reduction was in conjunction with implementation of the IBM agreement and not an "employee reduction initiative". The table below provides the number of employees leaving NiSource as well as the months in which they left. Payroll reductions pertaining to these employees have been recognized each month after the exit dates noted in this table.

[illegible]5	08/05	09/05	10/05	11/05	12/05	01/06	02/06	03/06	04/06	05/06	06/06	07/06	08/06	09/06	10/06
400	23	62	42	78	30	124	14	3	17	20	5	1	1	8	1

c. Yes, the pro forma adjusted test year results include amortization of one-time implementation costs associated with the IBM contract. $769,363 of the $1,111,186 shown on line 8 of Schedule D-2.8 Sheet 1 of 2 is NCSC costs charged to Columbia and associated with the IBM contract. This represents 1/3 or one of a proposed three year amortization of $2,308,090 as shown on D-2.8 sheet 2 of 2. These costs were not deferred. Authorization for deferral of these costs is being sought in this case by witness Kelly L. Humrichouse on page 16 lines 6 through 11 of her testimony.

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 47

The pro forma adjusted NCSC expenses shown on Schedule D-2.8 have been increased (by $833,719) to reflect the total 2007 contractual expense level of the IBM contract. In this regard, please provide the following information:

a. Have the pro forma adjusted NCSC expenses similarly been decreased to reflect the total annualized expense savings (from the reduction of approximately 1,000 NCSC positions and from other IBM contract related efficiencies and cost reductions) experienced or expected to be experienced as a result of the IBM contract? If so, explain what these annualized savings are and where these savings are reflected on Schedule D-2.8 and/or Attachment SMT-3. If not, explain why not.

b. Provide the annual contractual IBM contract cost amounts to Columbia Gas of Kentucky during each of the 10-year contract period. In addition, provide actual source documentation in support of these annual contractual costs.

Response of Columbia Gas of Kentucky:

a. As of December 31, 2006, 872 employees were severed as a result of the agreement with IBM, of whom 554 became employees of IBM. 196 of the 872 severed employees were NCSC employees. The NCSC severances occurred prior to and during the test period. As a result, these reductions in staff are reflected in the test year and reflected in lower contract bill costs to Columbia Gas of Kentucky. Savings related to these severances are not tracked; therefore, no pro forma adjustments were reflected for severance adjustments.

b. The IBM contract terms are provided by annual amounts by functional area, not by specific operating company. In order to provide the Columbia Gas of Kentucky portion, an allocation was performed to calculate Columbia Gas of Kentucky's estimated IBM costs to the total costs by functional area for the test period. This allocation was applied to all future periods in the 10 year contract in order to get an estimate for Columbia Gas of Kentucky's portion of the IBM costs in PSC Case No. 2007-00008 AG-1-047 Attachment 1.

IBM 10 Year Contract
Schedule 4.2-Pricing Table through Amendment 20
Case No. 2007-00008

TOTAL	6 months 2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	6 months 2015	Total
by Functional Area ($)												
IT	34,229,633	74,850,968	90,149,321	92,182,872	91,415,569	91,393,495	84,026,088	79,878,278	78,024,000	74,392,646	33,074,516	823,617,385
Finance	3,256,792	10,312,259	12,834,618	12,497,145	12,062,223	12,520,303	12,477,382	11,655,761	11,374,192	11,095,598	5,478,156	115,564,430
HR	5,957,471	5,845,967	6,220,169	7,003,344	7,072,855	6,115,279	6,342,003	5,555,157	5,468,674	5,386,703	2,773,851	63,741,473
Supply Chain	1,719,313	5,294,729	7,102,300	7,313,193	9,148,593	7,900,658	7,828,152	8,279,854	7,274,812	7,150,718	3,749,617	72,761,939
Meter to Cash	15,532,372	25,629,400	28,299,254	28,430,618	28,011,389	28,141,526	28,267,700	27,828,225	27,595,794	27,572,080	12,827,522	278,135,880
Contact Centers	8,605,089	18,935,451	19,343,514	18,795,122	19,154,859	20,255,808	21,404,807	21,162,049	20,735,640	20,361,050	11,122,392	199,875,780
Sales Centers	106,135	674,742	846,299	805,480	758,487	709,548	672,917	639,711	612,486	593,982	289,551	6,709,338
WMS	6,388,067	10,330,896	23,225,129	4,526,413	0	0	0	0	0	0	0	44,470,505
Annual Service Fees	75,794,873	151,874,411	188,020,604	171,554,188	167,623,973	167,036,616	161,019,049	154,999,034	151,085,599	146,552,777	69,315,606	1,604,876,729

Detailed Annual Service Fees by Functional Area ($)	CKY Allocation *	6 months Actual 2005	Actual 2006	Estimated 2007	Estimated 2008	Estimated 2009	Estimated 2010	Estimated 2011	Estimated 2012	Estimated 2013	Estimated 2014	6 months Est 2015	Total
IT	3.06%	889,113	2,088,234	2,758,569	2,820,796	2,797,316	2,796,641	2,571,198	2,444,275	2,387,534	2,276,415	1,012,080	23,953,060
Finance	3.22%	36,837	304,211	413,275	402,408	388,404	403,154	401,772	375,315	366,249	357,278	176,397	3,588,462
HR	2.41%	150,636	96,961	149,906	168,781	170,456	147,378	152,842	133,879	131,795	129,820	66,850	1,348,668
Supply Chain	3.19%	47,534	163,117	226,563	233,291	291,840	252,031	249,718	264,127	232,067	228,108	119,613	2,260,475
Meter to Cash	5.18%	801,933	1,075,340	1,465,901	1,472,706	1,450,990	1,457,731	1,464,267	1,441,502	1,429,462	1,428,234	664,466	13,350,599
Contact Centers	3.70%	42,289	850,947	715,710	695,420	708,730	749,465	791,978	782,996	767,219	753,359	411,529	7,227,351
Sales Centers	0.00%	-	-	0	0	0	0	0	0	0	0	0	0
WMS	3.78%	220,218	177,641	877,910	171,098	0	0	0	0	0	0	0	1,226,649
Annual Service Fees	3.29%	2,188,560	4,756,451	6,607,835	5,964,499	5,807,736	5,806,400	5,631,775	5,442,095	5,314,326	5,173,213	2,450,934	52,955,263

* Refer to PSC-2-066, Attachment a-Line 5, Page 3 of 3, for CKY Percentages for IBM Contract Costs. These percentages are based on actual costs by IBM functional area for TME 9-30-06.

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 48

With regard to Schedule D-2.8, sheets 1 and 2, please provide the following information:

a. Description and dollar amount breakout of the components making up the one-time IBM outsourcing costs and other NCSC one-time costs of $1,197,829 included in the test year.

b. Explanation as to whether these one-time costs of $1,197,829 are included in the one-time cost amounts of $2,308,090 and $216,690 on sheet 2 of 2.

Response of *Columbia Gas of Kentucky*:

a. Included in Table AG-1-048 is the dollar breakout of the one-time components of $1,197,829 included in the test year.

Table AG-1-048

IBM related:	
Work Management System	343,993
Transition Costs	677,115
Consulting Costs	45,034
Restructuring/Severance Costs	(81,003)
Total IBM One-Time Costs	985,139
Other:	
Loss on Mainframe Write-off	38,033
Sale of Building - Marble Cliff	95,309
Severance Costs	79,348
Total Other One-Time Costs	212,690
Total One-Time Costs in Test Year	**1,197,829**

b. Yes, the $1,197,829 one-time costs are included in the one-time costs included on Schedule D-2.8 Sheet 2 of 2.

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 49

For each of the IBM-related, NCSC-related, and direct Columbia of Kentucky one-time costs shown on Schedule D-2.8, sheet 2 of 2, please provide the following information:

a. The time period (indicate months and years) during which these one-time costs were accumulated.

b. Indication as to whether these costs were deferred or "expensed when incurred" on the Company's books.

c. If these one-time costs were expensed when incurred, isn't it true that these costs are no longer reflected on the Company's current books?

d. If these one-time costs were deferred, did the Company request and receive authorization for these cost deferrals from the KPSC? If not, why not?

Response of Columbia Gas of Kentucky:

a. Please refer to 2007-00008 AG Set 1-049 Attachment 1. Please note there is one tab each for IBM, NCSC, and Columbia of Kentucky one-time costs.

b. These costs were expensed when incurred on the Company books.

c. No, this is not true. While these costs were not deferred, the one-time costs are reflected on the Company's balance sheet as lower equity. Customers are properly charged for all costs that are incurred in the provision of service by the Company, as proposed in this case by Columbia.

d. Authorization for deferral treatment is being sought and has been included in the testimony of witness Kelly L. Humrichouse on Page 16, Lines 6 through 8.

CKY Direct
One-Time Costs

	Labor - Severance 1/	Other - Benefits 2/	Medical - Cobra	OPEB Retiree Medical	OPEB Retiree Life	Pension	Outside Svcs Placement	Total D-2.8 2of2
Jun-05	$381,965	$141,709	$94,793	$96,297	($10,787)	$68,864	$97,724	$870,565
Jul-05								$0
Aug-05				($5,471)	$1,859	($3,558)		($7,170)
Sep-05								$0
Oct-05								$0
Nov-05								$0
Dec-05	$111,867	($120,760)						($8,893)
Jan-06								$0
Feb-06								$0
Mar-06	$5,966	($532)						$5,434
Apr-06	($12,917)							($12,917)
May-06								$0
Jun-06	($14,637)	($17,306)						($31,943)
Jul-06								$0
Aug-06								$0
Sep-06								$0
Oct-06								$0
Nov-06								$0
Dec-06	($2,135)	($163)						($2,298)
Total Included on D-2.8 Sheet 2 of 2	$470,109	$2,948	$94,793	$90,826	($8,928)	$65,306	$97,724	$812,778

1/ December 2006 entry was made to true-up out the accrual to actual
2/ The initial accrual entry made in June 2005 was reversed as the expense was reflected through benefits expense

NCSC
One-Time Costs

	Loss on Mainframe	Sale of MC Bldg	Severance Costs	Total D-2.8 2of2
Jun-05				$0
Jul-05				$0
Aug-05				$0
Sep-05				$0
Oct-05				$0
Nov-05				$0
Dec-05				$0
Jan-06			$79,348	$79,348
Feb-06				$0
Mar-06				$0
Apr-06		$94,973		$94,973
May-06				$0
Jun-06		$336		$336
Jul-06	$38,033			$38,033
Aug-06				$0
Sep-06				$0
Oct-06				$0
Nov-06				$0
Dec-06				$0
Total Included on D-2.8 Sheet 2 of 2	$38,033	$95,309	$79,348	$212,690

IBM
One-Time Costs

	Work Management	**Transition Costs ***	**Consulting Costs**	**Restructuring Costs**	**Total D-2.8 2of2**
Jun-05					$0
Jul-05				$864,301	$864,301
Aug-05		$271,392		($35,777)	$235,615
Sep-05		$175,096	$11,408		$186,504
Oct-05	$83,027	$117,419	$12,704		$213,150
Nov-05	$51,245	$79,779	$10,083		$141,107
Dec-05	$37,077	$68,540	$7,938		$113,556
Jan-06	$48,869	$39,619	$2,685	($18,464)	$72,709
Feb-06	$41,258	$79,449	$2,220		$122,927
Mar-06	$41,258	$52,019			$93,278
Apr-06	$41,258	$50,427	$4,107	($42,342)	$53,450
May-06		$42,131	$2,853		$44,984
Jun-06		$36,707	$2,444		$39,151
Jul-06		$50,577		($20,197)	$30,380
Aug-06		$43,042			$43,042
Sep-06		$17,405			$17,405
Oct-06		$15,172			$15,172
Nov-06		$19,394			$19,394
Dec-06		$6,208			$6,208
Total Included on D-2.8 Sheet 2 of 2	$343,993	$1,164,375	$56,443	$747,521	$2,312,332

* Note: Actual transition costs differ slightly from the filed $1,160,133 as the NCSC allocation factors are updated semi-annually (Feb and Aug). The transition costs provided for Oct 06 - Dec 06 are different by $4,242.

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 50

With regard to the direct Columbia of Kentucky one-time costs and out-of-period costs shown on WPD-2.8, please provide the following information:

a. The one-time costs apparently are related to employee layoffs resulting from the IBM contract that were directly charged to Columbia Gas of Kentucky. Please explain the reasons for this. In addition, explain whether the full annualized impact of the cost savings associated with these employee layoffs are reflected in the pro forma adjusted test year expenses and where in the filing schedules these cost savings are reflected.

b. Provide detailed explanations for each of the three out-of-period expense charges and credits.

Response of Columbia Gas of Kentucky:

A. In connection with the IBM agreement, 31 Lexington call center employees were severed resulting in Columbus Gas of Kentucky directly incurring the following:

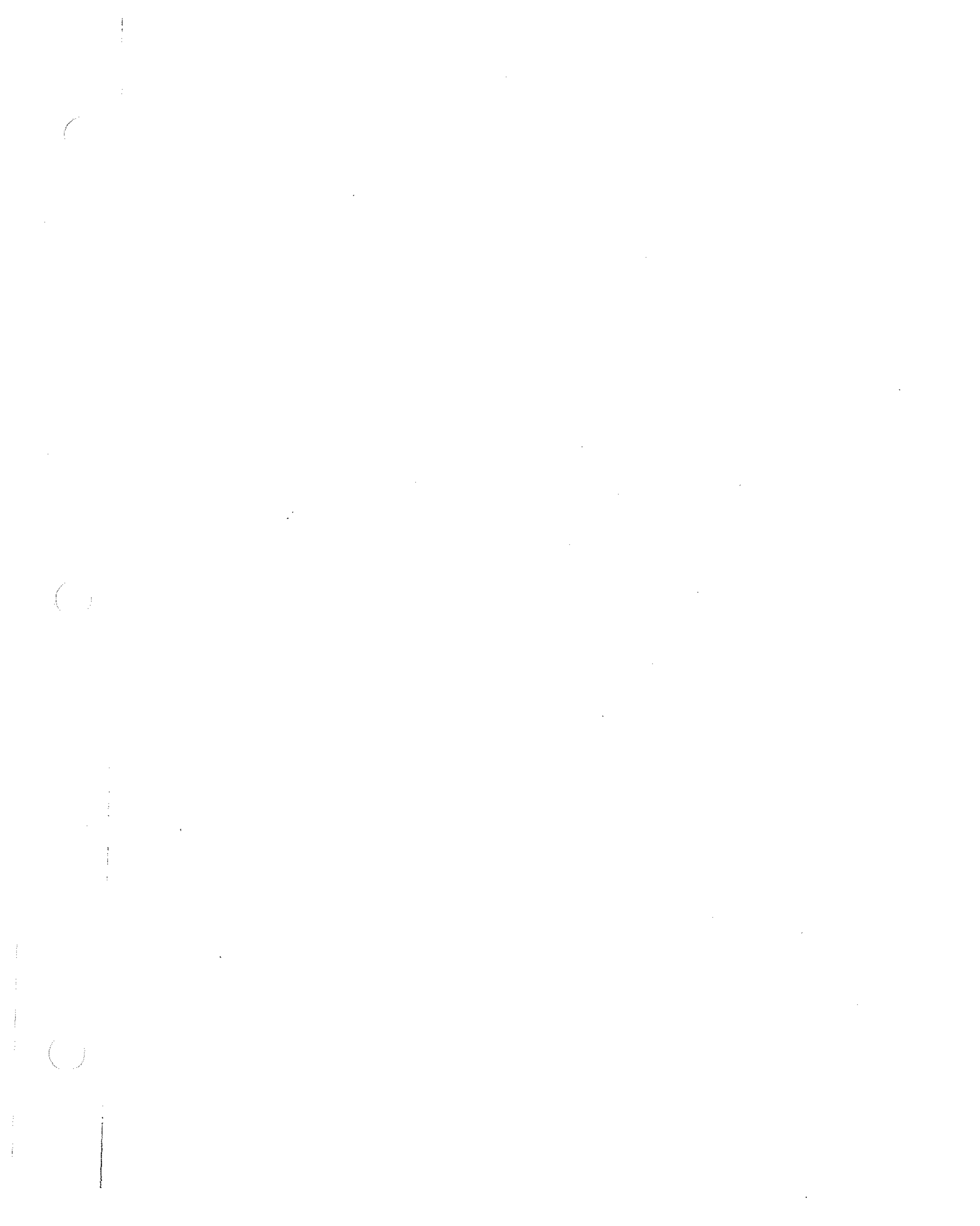
1. $470,109 in actual employee severance payments.
2. $94,793 in COBRA medical benefits that follow the severed employees.
3. $97,724 in employee outplacement charges which include job assistance costs to obtain new employment.
4. $2,948 in benefits which include overhead, taxes and insurance.
5. $65,306 in FAS 88 pension plan expenses.
6. $81,898 in FAS 106 postretirement welfare plan expenses including retiree medical and retiree life insurance benefits.

Full annualized cost savings associated with severed employees have been reflected on WPD 2.2 Sheet 5 of 8, WPD 2.2 Sheet 1 of 8, and Schedule D-2.2 Sheet 1 of 1. WPD 2.2 Sheet 5 of 8 develops annualized base salary based upon 134 Columbia direct employees employed as of September 30, 2006 by applying each employee's current annual base salary. The 134 employees as of September 30, 2006 do not include any employees previously severed. This annualized base salary is then carried forward to WPD 2.2 Sheet 1 of 8 and further carried to D-2.2 Sheet 1 of 1.

B. The three out-of-period charges and credits for the year Oct '05 – Sept '06 are:

1. ($140,572) represents amortization of employee outplacement costs over a 6 month period.
2. ($138,598) represents revisions of benefit expenses that were recorded in the prior year.
3. $90,279 represents revisions of severance expenses that were recorded in the prior year based on the original severance model assumptions.

These adjustments were made to exclude non-recurring items reflected in Columbia's test year expense level and not otherwise adjusted.



**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 51

FR # 6-t, page 2 of 5 shows total annual NCSC charges to Columbia Gas of Kentucky of around $7.5 and 7.8 million in 2003 and 2004. Please provide a detailed explanation for all of the reasons why these allocated annual NCSC costs increased to $10.2 million in 2005 and $9.5 million in the test year.

Response of Columbia Gas of Kentucky:

Table AG-1-051 details the increase in the test year and calendar year 2005 costs billed to Columbia Gas of Kentucky.

Table AG-1-051

	Test Year	**2005**
Beginning Balance	$9,541,795	$10,158,379
NCSC Mgmt Fee Estimate 9/05 Reversal[1]	1,170,262	-
NCSC Mgmt Fee Estimate 9/06 Estimate[1]	(661,707)	-
Less One-Time Costs:		
Transition Costs[2]	(677,115)	(751,845)
Restructuring/Severance Costs[2]	81,003	(810,061)
Severance Costs[2]	(79,348)	(79,348)
Sale of Building - Marble Cliff [2]	(95,309)	-
Loss on Mainframe Write-off[2]	(38,033)	-
Consulting Costs[2]	(45,034)	(44,818)
WMS Quick Wins[2]	(343,993)	(220,218)
Incentive Compensation Reversal[3]	164,173	-
IBM Functional Areas Included in NCSC Costs:		
Call Centers[4]	(580,748)	(42,289)
Meter-To-Cash[4]	(1,126,247)	(801,933)
	$7,309,698	$7,407,866

(1) NCSC bills contract billings to NiSource affiliates on a one month lag except for in December when the affiliates book the actual contract bill. Columbia Gas of Kentucky and other affiliates book a contract bill estimate in the current month. In the subsequent month, the prior month contract bill estimate is reversed and the actual contract bill is recorded on Columbia Gas of Kentucky's and other affiliates' books.

(2) Please see Table AG-1-048 in Columbia's response to AG Set 1-048for Test Year One-Time costs components.

(3) Please see Table AG-1-52 in Columbia's response to AG Set 1-052 for an explanation of the incentive compensation reversal that occurred during the Test Year.

(4) As part of the services agreement with IBM, IBM began to support business functions for NiSource beginning in July 2005. Included in these support functions are the processes for Customer Contact and Meter to Cash which were originally provided by Columbia Gas of Kentucky. Subsequent to the IBM contract, these costs are contract billed by NCSC in accordance with the NCSC Service Agreement.

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 52

The Company is claiming total pro forma adjusted NCSC-allocated expenses of $10,275,013 in this case. To the extent that this annual expense amount includes the following expense items, please provide a detailed listing, quantification and description of the components making up each of these expense items:

a. Promotional and institutional advertising expenses
b. Charitable contribution expenses.
c. Lobbying and governmental affairs expenses.
d. Public relations and community relations/civic affairs expenses.
e. Expenses for employee awards, parties, outings and gifts.
f. Fines and penalties.
g. AGA dues.
h. Membership dues for country clubs and social and service clubs.
i. Incentive compensation expenses (in total and broken out by incentive compensation program).

Response of Columbia Gas of Kentucky:

a. Please refer to response for AG-1-062 for detailed listing. This amount is included in the NCSC annual expense amount.

b. Please refer to response for AG-1-060 for detailed listing. This amount is included in the NCSC annual expense amount.

c. Please refer to response for AG-1-063 and AG-1-064 for detailed listing. This amount is included in the NCSC annual expense amount.

d. Please refer to response for AG-1-065 for detailed listing. This amount is included in the NCSC annual expense amount.

e. Please refer to response for AG-1-061 for detailed listing. This amount is included in the NCSC annual expense amount.

f. Please refer to response for AG-1-066 for detailed listing. This amount is included in the NCSC annual expense amount.

g. Please refer to response for AG-1-067 for detailed listing. This amount is included in the NCSC annual expense amount.

h. Please refer to response for AG-1-059 for detailed listing. This amount is included in the NCSC annual expense amount.

i. Normal employee bonuses were not paid out in 2005; therefore, a one-time adjustment in the amount of $(164,172.79) took place in the test period to reverse out-of-period bonuses recorded for 2005. This amount was inadvertently not listed on Schedule D-2.8 Page 1 of 2, Line 4, One Time Costs included in the Test Year. There was a small payout to a group of individuals in the Energy Supply Services. Columbia Gas of Kentucky's portion of this amount was $9,036.93.

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 53

With regard to property & liability insurance expenses, please provide the following information:

a. Expand the monthly information shown on WPD-2.9, sheet 2 of 3 by providing actual monthly information for the months of October 2006 through February 2007.
b. Reconcile the actual test year account 924 - property insurance expenses of $160,537 to the actual test year property insurance expenses shown in column (2) of Schedule D-2.9.

Response of Columbia Gas of Kentucky:

a. Please refer to 2007-00008 AG Set 1-053 Attachment 1 for the requested information.

b. Schedule D-2.9 annualizes non-affiliate and affiliate property and liability insurance expense that are incurred directly by Columbia. The 924 test year account includes expense from NCSC and Miscellaneous Fees. These were not adjusted in the cost of service.

Account 924 Property Insurance	Sched D-2.9	Test Year
	$	$
Non-Affiliate	58,914	58,914
Affiliate	25,527	25,527
NCSC Costs		71,719
Miscellaneous Fees		4,377
Total		160,537

COLUMBIA GAS OF KENTUCK
CASE NO. 2007-00008
ANNUALIZATION OF PROPERTY & LIABILITY INSURANCE EXPENSE
FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2006

Year	Beginning Balance $	Property Insurance Premiums Amortization Account 924 $	Misc Corporate Insurance Premiums Amortization Account 925 $	Auto, Truck, Backhoe, Trailer Insurance Account 184 $	Clear Conv Bill Account 186 $	Ending Balance $	Per Income Statement $	Difference $
Account 165-001 Prepayments - Insurance								
Oct-05	236,086	(2,875)	(32,061)	(317)	6,846	207,679	207,680	(1)
Nov-05	207,679	(6,336)	(35,863)	(317)	163,198	328,361	328,361	0
Dec-05	328,361	(4,841)	(35,348)	(317)	4,045	291,900	291,899	1
Jan-06	291,900	(4,841)	(35,348)	(317)	153,534	404,928	404,926	2
Feb-06	404,928	(3,028)	(35,464)	(317)	(152,950)	213,168	213,167	1
Mar-06	213,168	(4,147)	(35,253)	(317)	504	173,955	173,954	1
Apr-06	173,955	(3,322)	(35,253)	(317)	889	135,951	135,951	0
May-06	135,951	(3,767)	(35,253)	(317)	0	96,614	96,615	(1)
Jun-06	96,614	(3,766)	(35,253)	(317)	0	57,278	57,279	(1)
Jul-06	57,278	(5,140)	(33,244)	(326)	295,715	314,282	314,284	(2)
Aug-06	314,282	(8,701)	(33,640)	(330)	23,770	295,381	295,383	(2)
Sep-06	295,381	(6,919)	(40,036)	(330)	26,366	274,462	274,464	(2)
Oct-06	274,462	(6,919)	(35,640)	(330)	6,179	237,751	237,754	(3)
Nov-06	237,751	(6,919)	(35,848)	(330)	159,604	354,259	354,261	(2)
Dec-06	354,259	(6,919)	(35,856)	(330)	0	311,155	311,155	0
Jan-07	311,155	(6,919)	(35,388)	(330)	0	268,518	268,518	0
Feb-07	268,518	(6,919)	(35,388)	(330)	0	225,881	225,881	0
Total		(92,278)	(600,140)	(5,489)	687,701			

Year	Beginning Balance $	NICL Property Insurance Premiums Amortization Account 924 $	NICL Misc Corporate Insurance Premiums Amortization Account 925 $	LTD Disability Accrual Affiliated Account 926 $	Medical LTD Insurance Account165-0003 $	Reclass Accrual Account 242-0003 $	Clear Conv Bill Account 186 $	Ending Balance $	Per Income Statement $	Difference $
Account 165-1022 Prepayments Insurance - Intercompany										
Oct-05	147,265	(1,403)	(16,998)	(1,689)	0	0	0	127,175	127,176	(1)
Nov-05	127,175	(1,403)	(14,072)	(1,689)	0	0	0	110,012	110,012	(0)
Dec-05	110,012	(1,403)	(14,072)	(1,689)	0	0	0	92,848	92,849	(1)
Jan-06	92,848	(1,403)	(14,072)	(0)	0	0	0	77,373	77,375	(2)
Feb-06	77,373	(1,403)	(14,072)	(0)	0	0	0	61,898	61,900	(2)
Mar-06	61,898	(1,403)	(14,072)	(0)	0	0	29,350	75,773	75,775	(2)
Apr-06	75,773	(1,403)	(14,072)	(1,351)	(13,141)	(4,052)	0	41,754	41,758	(4)
May-06	41,754	(1,403)	(14,072)	(1,351)	0	0	0	24,929	24,932	(3)
Jun-06	24,929	(1,403)	(14,072)	(1,351)	0	0	0	8,103	8,107	(4)
Jul-06	8,103	(4,300)	(13,997)	(1,351)	0	0	219,553	208,008	208,012	(4)
Aug-06	208,008	(4,300)	(13,996)	(1,351)	0	0	0	188,361	188,366	(5)
Sep-06	188,361	(4,300)	(14,549)	(1,351)	0	0	2,200	170,361	170,367	(6)
Oct-06	170,361	(4,300)	(14,179)	(1,351)	0	0	19,436	169,968	169,973	(5)
Nov-06	169,968	(4,300)	(14,179)	(1,351)	0	0	(19,436)	130,702	130,707	(5)
Dec-06	130,702	(4,300)	(14,179)	(1,351)	0	0	0	110,872	110,877	(5)
Jan-07	110,872	(4,300)	(14,179)	0	0	0	0	92,393	92,398	(5)
Feb-07	92,393	(4,300)	(14,179)	0	0	0	0	73,914	73,919	(5)
Total		(47,027)	(243,011)	(17,223)	(13,141)	(4,052)	251,103			

COLUMBIA GAS OF KENTUCKY,INC.
CASE NO. 2007-00008
ANNUALIZATION OF PROPERTY & LIABILITY INSURANCE EXPENSE
FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2006

	Non- Affiliate C. E. 4530	Refunds & Fees C. E. 4530	Accruals Non- Affiliate Adjusted	Affiliate C. E. 4531	Management Services C. E. 8010	Total
Oct-05	2,875	0	2,875	1,403	3,866	8,144
Nov-05	6,218	(118)	6,336	1,403	4,441	12,062
Dec-05	7,622	2,781	4,841	1,403	5,415	14,440
Jan-06	4,824	(17)	4,841	1,403	5,172	11,399
Feb-06	3,061	33	3,028	1,403	8,374	12,838
Mar-06	4,147	0	4,147	1,403	8,654	14,204
Apr-06	3,322	0	3,322	1,403	4,827	9,552
May-06	3,767	0	3,767	1,403	4,129	9,299
Jun-06	5,473	1,707	3,766	1,403	5,757	12,633
Jul-06	7,586	0	7,586	4,300	9,109	20,995
Aug-06	6,255	0	6,255	4,300	4,597	15,152
Sep-06	8,150	0	8,150	4,300	7,378	19,828
Total	63,300	4,386	58,914	25,527	71,719	160,546

	Refunds & Fees C. E. 4530	
Oct-05	0	
Nov-05	(118)	Aegis Refund
Dec-05	2,781	Corporate Insurance Monthly Fee
Jan-06	(17)	Environmental Ins & Corp. Ins Qtry
Feb-06	33	Corporate Insurance Monthly Fee
Mar-06	0	
Apr-06	0	
May-06	0	
Jun-06	1,707	Corporate Insurance Monthly Fee
Jul-06	0	
Aug-06	0	
Sep-06	0	Oil Ins. 4th Qtry
Total	4,386	

Attorney General Data Request Set 1
Question No. **54**
Columbia Gas of Kentucky Respondent: **P.R. Moul**

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 54

June Konold's direct testimony states that Columbia Gas of Kentucky was *required to adopt SFAS No. 158 for the fiscal year ended December 31, 2006 and that* this resulted in a reduction to Columbia's shareholder equity of $3,728,089. Is this approximate $3.7 million equity reduction reflected in the pro forma capitalization and capital structure proposed by the Company in this case? If so, how and where in the filing schedules is this booking reflected?

Response of Columbia Gas of Kentucky:

The approximate $3.7 million equity reduction related to the adoption of SFAS No. 158 is not reflected in the capital structure proposed by the Company. The Company proposed a September 30, 2006 capital structure with a pro forma adjustment made for a long-term note issued in November, 2006. In addition, a hypothetical amount of debt was issued to obtain a 45% long-term debt and 55% common equity capital structure based on a study of other gas companies and expectations of investors. A thirteen-month average short-term debt was also included in the capital structure, resulting in the proposed structure of 42.62% long-term debt, 5.30% short-term debt and 52.09% common equity. Therefore, the December journal entry related to SFAS No. 158 was not taken into account for the proposed capital structure.

Attorney General Data Request Set 1
Question No. 55
Columbia Gas of Kentucky Respondent: **K L. Humrichouse**

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 55

Please provide the Consumer Price Index ("CPI") for each of the calendar years 1996 through 2005 (measured as of December) and the September CPI value for the 9-month period ended September 30, 2006.

Response of Columbia Gas of Kentucky:

The table below contains the requested information.

Date	CPI
Dec-96	1.586667
Dec-97	1.616667
Dec-98	1.641333
Dec-99	1.684333
Dec-00	1.742333
Dec-01	1.775000
Dec-02	1.815000
Dec-03	1.849333
Dec-04	1.911333
Dec-05	1.983000
Sep-06	2.032333

Attorney General Data Request Set 1
Question No. **56**
Columbia Gas of Kentucky Respondent: **Kelly Humrichouse**

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

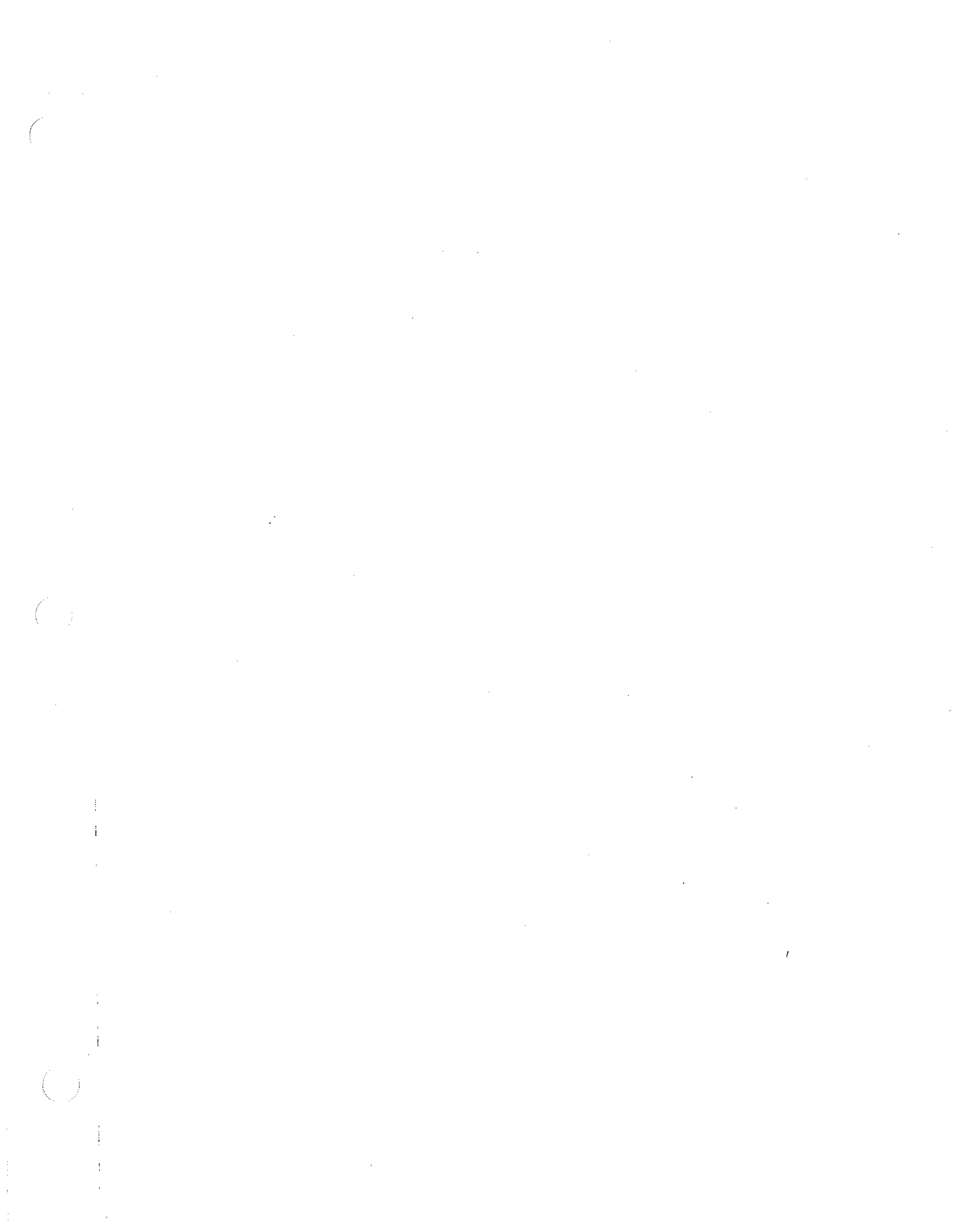
Question No. 56

Please provide the actual Injury and Damages expenses booked by the Company for each of the years 1997 through 2005 and for the test year ended September 2006.

Response of Columbia Gas of Kentucky:

Listed below is the actual injury and damage expense charged to account 925 for the years 1997 through September 2006.

1997	$348,944
1998	$115,959
1999	$110,735
2000	$658,496
2001	$215,967
2002	($220,563)
2003	$269,256
2004	($14,060)
2005	($41,574)
2006	$154,771



**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 57

With regard to professional services expenses, please provide the following information:

a. In the same format and detail as per filing requirement Schedule F-5, provide a breakout of the professional services expenses (e.g., legal, engineering, accounting, other) included in the pro forma adjusted test year results. [Note: while the Company claims that this filing requirement information is not a requirement of an historic test period filing, the AG is seeking this same information through this request for information].
b. Provide a detailed listing and dollar breakout of all of the components making up each of the professional service expense categories to be provided in the response to part a above.
c. Equivalent actual professional service expenses (by the categories identified in part a above) booked in 2003, 2004 and 2005.

Response of Columbia Gas of Kentucky:

a. Please refer to 2007-00008 AG Set 1-057a Attachment 1 for the requested information. The breakout of expense by function in this attachment differs slightly from the totals filed in 2007-00008 PSC Set 1-028 Format 28. The total has not changed. In summarizing the vendor listing for this response several items were re-categorized to other functions. Columbia Gas of Kentucky receives professional services in two primary ways – through direct engagement and charging (via Columbia Gas of Kentucky) and through NiSource Corporate Services Company. The professional services identified in this response are those engaged by and charged directly to Columbia Gas of Kentucky.

b. Please refer to 2007-00008 AG Set 1-078 Attachment 1, pages 1, 2, and 3 of 5 for the requested information.

c. Please refer to 2007-00008 AG Set 1-057c Attachment 1 for the requested information.

COLUMBIA GAS OF KENTUCKY, INC.
CASE NO. 2007-00008
PROFESSIONAL SERVICE EXPENSES
FOR THE TWELVE MONTHS ENDED SEPTEMBER 30,2006

Line No.	Description	Expense Breakdown: Rate Case	Expense Breakdown: Annual Audit	Expense Breakdown: Other	Total Company Unadjusted	Jurisdictional %	Base Period Jurisdictional Adjusted	Adjustments	Forecasted Period Jurisdictional Adjusted
1.	Legal			1,050	1,050	100%	1,050		1,050
2.	Engineering			10,153,275	10,153,275	100%	10,153,275		10,153,275
3.	Accounting			262,630	262,630	100%	262,630		262,630
4.	Other								
	Contract Meter Reading			973,442	973,442	100%	973,442		973,442
	Building and Office Equip. Maintenance			249,383	249,383	100%	249,383		249,383
	CAP Administration Costs			52,897	52,897	100%	52,897		52,897
	One Call System			52,547	52,547	100%	52,547		52,547
	Printing/Video Expenses			17,253	17,253	100%	17,253		17,253
	Environmental Costs			3,823	3,823	100%	3,823		3,823
	Courier Services			6,656	6,656	100%	6,656		6,656
	External Computing Services			1,338	1,338	100%	1,338		1,338
	Miscellaneous Employee Expenses			23,056	23,056	100%	23,056		23,056
	Miscellaneous Auto Expenses			5,593	5,593	100%	5,593		5,593
5.	TOTAL			11,802,943	11,802,943	100%	11,802,943	0	11,802,943

COLUMBIA GAS OF KENTUCKY, INC.
CASE NO. 2007-00008
PROFESSIONAL SERVICE EXPENSES
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2003

Line No.	Description	Expense Breakdown: Rate Case	Expense Breakdown: Annual Audit	Expense Breakdown: Other	Total Company Unadjusted	Jurisdictional %	Base Period Jurisdictional Adjusted	Adjustments	Forecasted Period Jurisdictional Adjusted
				$	$		$		$
1.	Legal			3,108	3,108	100%	3,108		3,108
2.	Engineering			6,051,477	6,051,477	100%	6,051,477		6,051,477
3.	Accounting			588,546	588,546	100%	588,546		588,546
4.	Other								
	Contract Meter Reading			781,394	781,394	100%	781,394		781,394
	Building and Office Equip. Maintenance			401,106	401,106	100%	401,106		401,106
	CAP Administration Costs			58,248	58,248	100%	58,248		58,248
	One Call System			20,775	20,775	100%	20,775		20,775
	Printing/Video Expenses			14,661	14,661	100%	14,661		14,661
	Environmental Costs			28,295	28,295	100%	28,295		28,295
	Courier Services			9,412	9,412	100%	9,412		9,412
	External Computing Services			36,209	36,209	100%	36,209		36,209
	Miscellaneous Employee Expenses			35,291	35,291	100%	35,291		35,291
	Miscellaneous Auto Expenses			5,595	5,595	100%	5,595		5,595
5.	TOTAL			8,034,117	8,034,117	100%	8,034,117	0	8,034,117

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE PUBLIC SERVICE COMMISSION
ORDER DATED APRIL 10, 2007

Question No. 58

Please provide a dollar breakout, listing and description of each of the following expense accounts:

a. Account 903 – Customer Records & Collections – Utility Services
b. Account 905 – Miscellaneous Customer Account expenses
c. Account 908 – Customer Assistance expenses
d. Account 910 – Miscellaneous Customer Account expenses
e. Account 921 – Office Supplies and Expenses
f. Account 930 – Miscellaneous General expenses.

Response of Columbia Gas of Kentucky:

Schedule C-2-1, page 2 of 2 presents the test year level on lines 58, 60, 67, 69, 82, and 91 respectively. Schedule C-2-2, pages 8 through 11 lists the monthly amounts for the test year, the same month previous year and the net change. The annual percentage change is listed below the annual change. The account descriptions which are consistent with the Federal Energy Regulatory Commission chart of accounts are listed below.

a. Account 903, Customer Records & Collections – Utility Services, includes the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigation, billing and accounting, collections and complaints.

b. Account 905, Miscellaneous Customer Account expenses, includes the cost of labor, materials used and expenses incurred not provided for in other accounts.

c. Account 908, Customer Assistance expenses, includes cost of labor, material used, and expenses incurred in providing instructions or assistance to customers, the object of which is to promote safe, efficient and economical use of gas utility service.

d. Account 910, Miscellaneous Customer Account expenses, includes cost of labor, material used, and expenses incurred in connection with customer service and informational activities which are not includible in other customer information expense accounts.

e. Account 921, Office Supplies and Expenses, includes office supplies and expenses incurred in connection with the general administrative of the Company's operations which are assignable to specific administrative or general departments and are not specifically provided for in other accounts.

f. Account 930 – Miscellaneous General expenses shall include the cost of labor and expense incurred in connection with the general management of the Company not provided for elsewhere.

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 59

Please provide a detailed listing, description and dollar breakout of all test year social and service club dues and country club dues included in the above-the-line test year expenses (both directly booked by Columbia Gas of Kentucky and as included in the NCSC-allocated charges).

Response of Columbia Gas of Kentucky:

See Table AG-1-59a below for amounts billed directly to Columbia Gas of Kentucky.

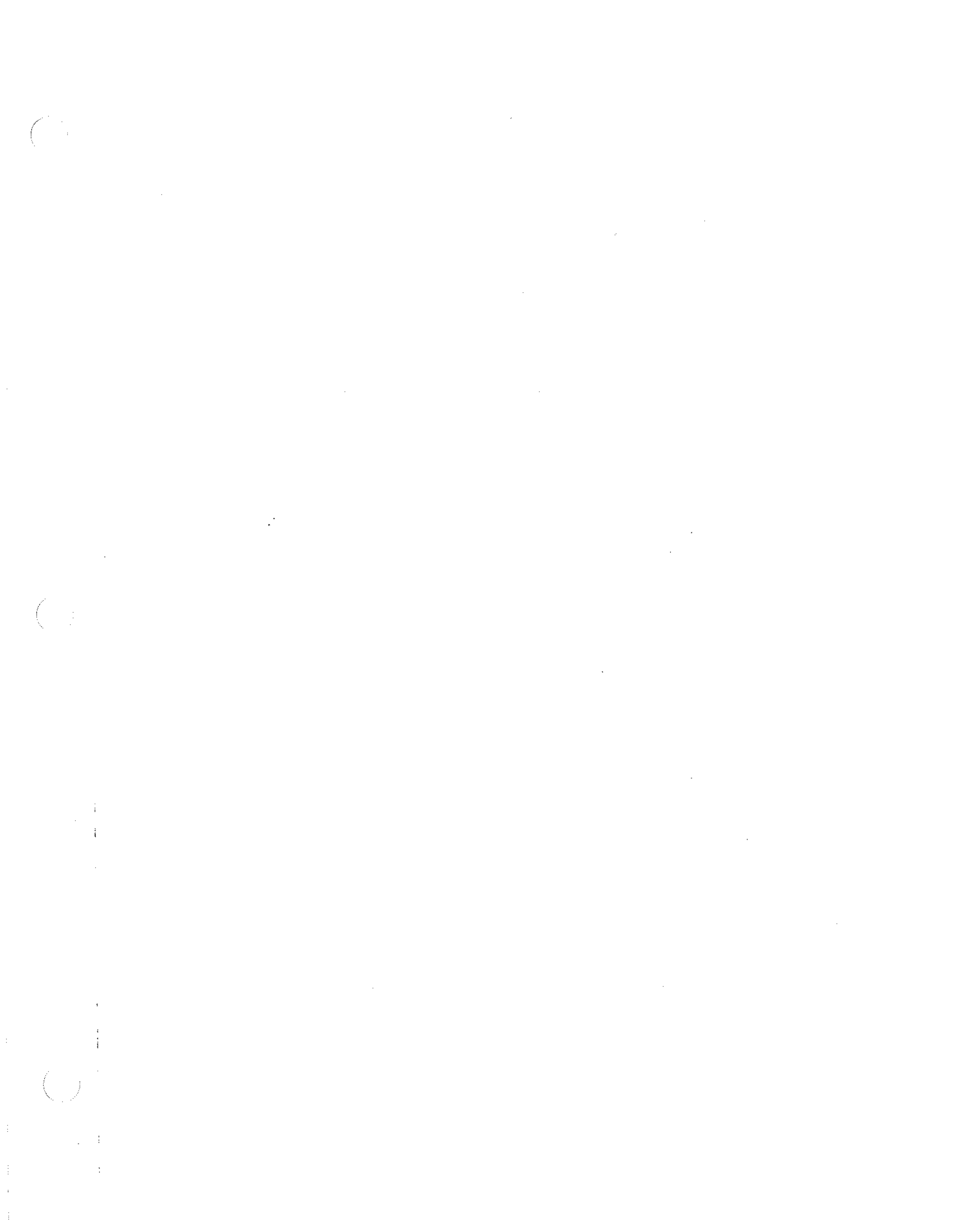
Table AG-1-59a

Vendor	**Amount** $
Keene land Association, Inc 2006 Club Dues	490
Lafayette Club 2006 Membership Dues	570
Total Booked Directly to Columbia Gas of Kentucky	1,060

Provided in Table AG-1-59b is a detailed listing of amounts billed by NCSC to Columbia Gas of Kentucky for social and service club dues during the test year. These costs were booked above the line on Columbia Gas of Kentucky's books.

Table AG-1-59b

Vendor	**Amount**
Ashland Alliance	$ 3,500.00
Kentucky Chamber of Commerce	$ 3,000.00
Commerce Lexington	$ 2,950.00
Woodford County Chamber of Commerce	$ 1,100.00
Mt. Sterling/Montgomery Co. Chamber of Commerce	$ 600.00
Georgetown Scott Co. Chamber of Commerce	$ 500.00
Paris Bourbon Co. Chamber of Commerce	$ 495.00
Chicago Club	$ 411.53
Frankfort Area Chamber of Commerce	$ 350.00
Invoices Under $300.00 (6)	$ 977.58
Total	$13,884.11



BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 60

Please provide a detailed listing, description and dollar breakout of all test year charitable expenses included in the above-the-line test year expenses (both directly booked by Columbia Gas of Kentucky and as included in the NCSC-allocated charges).

Response of Columbia Gas of Kentucky:

It is Columbia Gas of Kentucky's policy to book charitable expenses below-the-line in account 426. During the test year $139,807 was booked to that account. However, during the discovery process it was found that $1,000 was booked to account 908 Customer Assistance Expenses.

During the test year, NCSC billed Columbia Gas of Kentucky $14.95 in charitable expenses. These costs were booked above-the-line on Columbia Gas of Kentucky's books.

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 80

With regard to the response to PSC-1-30, please provide the following information:

a. Provide the official job description for the Director of Governmental Affairs.
b. Provide a percentage breakout of the various activities, including lobbying, generally performed by the Director of Governmental Affairs.
c. Provide a worksheet showing the total annual salary and other compensation expense and all of the fringe benefit expenses (list by component) and payroll taxes included in the pro forma test year O&M expenses for Brack Marquette.
d. Explain the exact derivation of the dollar amount numbers shown in the response to PSC-1-30.

Response of Columbia Gas of Kentucky:

a. The most recent job description is attached.

b. During the test year the percentage of the incumbent's employment was approximately as follows:
   1. Lobbying – 7.69%
   2. Legislative research/analysis – 37.5%
   3. Economic development management/support – 16.99%
   4. General administrative duties -37.82%

c. Columbia is seeking, pursuant to 807 KAR 5:001 Section 7, an order from the Commission declaring the salary and compensation material sought under this request is confidential.

d. During the test year, the incumbent's expenses for lobbying activities occurred during times of personal contact with members of the General Assembly or Legislative Research Commission during the legislative session or committee meetings and other events, and included related travel, meals, supplies and other related expenses.

COLUMBIA GAS OF KENTUCKY, INC.
Assignment Profile

Title:	Director Governmental Affairs	**Occupation Code:**	
Location:	CKY	**Status:**	Exempt
Reports To:	President Columbia Gas of Kentucky	**Supervises:**	0
Date:	11-06-03		

Purpose: Primary external legislative and local public officials contact. Drives legislative strategies and provides recommendations, advice, and guidance on governmental actions and strategy, based on assessment of external environment in Kentucky. Champions CKY's legislative strategies to internal and external audiences, with the objective of achieving CKY's financial goals.

Key Results:

- Effective external relationships with state legislators and other key parties
- Strategic state legislative policy
- Achievement of CKY and legislative goals that support CKY's financial and strategic plan objectives
- Supports initiatives of CKY Director of Regulatory Policy

Essential Responsibilities:

- Act as primary legislative liaison between CKY, and the Kentucky Public Service Commission, the Kentucky Attorney General's Consumer Division, the Kentucky Legislature and Executive Branch, local governments and other stakeholders.
- Proactively drive successful outcomes to legislative initiatives.
- Support CKY Marketing/Sales and Operations initiatives.
- Provide an on going assessment of the legislative environment, including an evaluation of opportunities and exposures related to energy and general business Issues in Kentucky.
- Coordinate and communicate global/federal legislative issues with Corporate Services .
- Provides legislative and executive branch status report to Political Action Committee.

Key Work Experiences/Education:

Required for Selection:

- Extensive governmental and/or financial experience.

Preferred for Selection:

- Bachelor's degree or higher in accounting, finance, economics, political science or equivalent experience.
- Experience with regulated utility in management of external affairs.
- Experience with the gas industry.
- Familiarity with Kentucky government, political and business environments.
- Strong interpersonal skills and strong negotiation skills
- Relationships/contacts with Kentucky public officials, key regulatory and legislative staff.

Technical/Functional Competencies:

Required for Selection:

-

Preferred for Selection:

- Knowledge of rate theory and application.
- Knowledge of legislative process.
- Witness training.

General/Transferable Competencies:

Applicable Core Competency Models:

- Professional/management models

Additional Assignment-Specific Competencies:

Required for Selection:

- Act with integrity
- Financial acumen
- Seasoned judgment
- Visionary thinking
- Influencing and negotiating
- Team building

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 61

Please provide a detailed listing, description and dollar breakout of all above-the-line expenses (both directly booked by Columbia Gas of Kentucky and as included in the NCSC-allocated charges) associated with employee awards, parties, outings and gifts.

Response of Columbia Gas of Kentucky:

There were no expenses for service awards booked directly to Columbia Gas of Kentucky during the test year.

NCSC rewards its employees for service milestones and longevity by giving service awards. During the test year, NCSC billed Columbia Gas of Kentucky $144.34 relating to payments made to Lester Lampert for service awards. Beginning November 1, 2005, IBM began paying for service awards as part of the service agreement.

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 62

Please provide a detailed listing, description and dollar breakout of all test year advertising expenses included in the above-the-line test year expenses (both directly booked by Columbia Gas of Kentucky and as included in the NCSC-allocated charges). In addition, indicate which of these advertising expenses can be considered promotional and institutional advertising.

Response of Columbia Gas of Kentucky:

There were no advertising costs billed to Columbia Gas of Kentucky's books during the test year.

During the test year, NCSC billed Columbia Gas of Kentucky $28,630.77 for advertising expenses. Costs contained in NCSC advertising expenses billed to Columbia Gas of Kentucky during the test year primarily relate to employee recruitment advertising and informational bill inserts and customer education materials. NCSC advertising costs billed to Columbia Gas of Kentucky deemed to be promotional and institutional total $4,893.98 during the test year. Table AG-1-62 details the NCSC advertising costs billed to Columbia Gas of Kentucky during the test year.

Table AG-1-62

Vendor	Description	Amount
Marketing Services by Vectra	Advertising	$16,940.50
NAS Recruitment Communications Inc.	Advertising	$ 3,554.28
Dapple Advertising LLC	Promotional/Institutional Advertising	$ 2,671.48
Nielson	Advertising	$ 1,449.51
Sheehy & Associates	Promotional/Institutional Advertising	$ 1,372.50
Getty Images	Promotional/Institutional Advertising	$ 850.00
Lynn Images	Advertising	$ 485.86
David Group	Advertising	$ 406.96
RL Wingate Associates Inc.	Advertising	$ 225.00
All Others Under $175.00 (17)	Advertising	$ 674.68
Total		$28,630.77

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 63

Please provide a detailed listing, description and dollar breakout of all test year lobbying and government affairs expenses included in the above-the-line test year expenses (both directly booked by Columbia Gas of Kentucky and as included in the NCSC-allocated charges).

Response of Columbia Gas of Kentucky:

See the response to PSC Set 1-030 for direct lobbying expenses incurred during the test year. See data request AG Set 1-080 for information pertaining to government affairs expenses.

NCSC did not bill Columbia Gas of Kentucky in the test year for lobbying expenses. Detail of Governmental Affairs NCSC expenses can be found in data request AG Set 1 – 064.

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 64

To the extent not already included in the foregoing data request, provide a breakout, description and quantification of all test year expenses (salaries and all associated benefits and overheads) associated with employees (both Columbia direct and NCSC-allocated) responsible for governmental affairs and lobbying functions.

Response of Columbia Gas of Kentucky:

See the response to data request AG Set 1-080 for Columbia direct.

NCSC billed Columbia Gas of Kentucky $10,939 during the test year for Governmental Affairs expenses. Please see Table AG-1-64 below detailing the Governmental Affairs test year expenses.

Table AG-1-64

Description	Amount
Salaries & Wage Expense*	$ 7,840
Office Space Lease	$ 2,808
Miscellaneous Expense	$ 291
Total	$10,939

* Salaries and Wage Expense includes associated benefits and overheads.

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 65

Please provide a detailed listing, description and dollar breakout of all test year public relations and community relations/civic affairs expenses included in the above-the-line test year expenses (both directly booked by Columbia Gas of Kentucky and as included in the NCSC-allocated charges).

Response of Columbia Gas of Kentucky:

There were no public relations, community relations/civic affairs expenses booked directly to Columbia Gas of Kentucky during the test year.

During the test year, NCSC billed Columbia Gas of Kentucky $9,500.00 for charges relating to public and community relations and civic affairs. These charges were booked above-the-line on Columbia Gas of Kentucky's books. Table AG-1-65 details these charges.

Table AG-1-65

Vendor	Amount
Commerce Lexington	$3,300.00
Explorium of Lexington	$1,000.00
Fifth Third Bank Tennis Championship	$1,000.00
Women Leading Kentucky	$1,000.00
Cardinal Valley Elementary School	$ 500.00
Fayette County Public Schools	$ 500.00
Lexlinc	$ 500.00
Montgomery Co. Council for the Arts	$ 500.00
Police Activities League	$ 500.00
Lexington Fayette Urban Government	$ 250.00
Pineville Independent Schools	$ 250.00
LG&E Energy	$ 200.00
Total	$9,500.00

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 66

Please provide any expenses associated with fines and penalties included in the above-the-line test year expenses (both directly booked by Columbia Gas of Kentucky and as included in the NCSC-allocated charges).

Response of Columbia Gas of Kentucky:

Expenses associated with fines and penalties that are billed directly to Columbia Gas of Kentucky are booked to account 426 below-the-line.

NCSC billed Columbia Gas of Kentucky $36 for inadvertent late payment penalties during the test year. These charges were booked above-the-line on Columbia Gas of Kentucky's books.

Attorney General Data Request Set 1
Question No. **67**
Columbia Gas of Kentucky Respondent: **Kelly Humrichouse**

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 67

With regard to AGA dues, please provide the following information:

a. Total AGA dues included in the test year expenses. In addition, explain as to whether 100% of these expenses are booked above-the-line or whether a portion of them are booked below-the-line, and explain the reason for this below-the-line portion.

b. Please provide the latest available percentage breakout with regard to the activities performed by the American Gas Association.

c. Provide a copy of the latest American Gas Association document that includes detailed descriptions of the nature and purpose of each of the functional areas to be provided in response to part b above.

Response of Columbia Gas of Kentucky:

a. The total AGA dues for Columbia Gas of Kentucky were $32,319 for the test year. These dollars were booked above the line in account 930 Miscellaneous General Expense.

b. Please see Attachment B.

c. Please see Attachment C.

AMERICAN GAS ASSOCIATION
2006 BUDGET

	\$ 2006 ALLOCATION	% 2006 ALLOCATION
Advertising	\$375,000	1.61%
Corporate Affairs	\$2,067,000	8.87%
General & Administrative	\$4,533,000	19.45%
General Counsel	\$1,005,000	4.31%
Industry Finance & Administrative Programs	\$1,011,000	4.34%
Operations & Engineering Management	\$5,270,000	22.62%
Policy, Planning & Regulatory Affairs	\$3,768,000	16.17%
Public Affairs	\$5,274,000	22.63%
Total Budget	\$23,303,000	100.00%

AMERICAN GAS ASSOCIATION

Definitions of Functional Cost Centers
For the Year Ended December 31, 2006

Advertisement manages the development and placement of advertisements in national print and electronic media.

Corporate Affairs provides opportunities for interaction between member companies and the financial community. The focus is to promote interest in the investment opportunities in the industry.

General and Administrative includes:

1. Office of the President provides senior management guidance for all AGA activities.
2. Human Resources develops and administers employee programs and provides office and personnel services.
3. Finance and Administration develops and administers financial accounting and treasury services and maintains computer services capability.

General Counsel provides legal counsel to the Association.

Industry Finance and Administration develops and implements programs in such areas as accounting, human resources, and risk management for member companies.

Operations and Engineering Management develops and implements programs and practices to meet the operational, safety, and engineering needs of the industry.

Policy, Planning, and Regulatory Affairs includes:

1. Policy & Analysis identifies the need for and conducts energy analyses and modeling efforts in the areas of gas supply and demand, economics, and the environment.
2. Regulatory Affairs provides members with information on FERC and state regulatory developments; prepares testimony, comments, and filings regarding regulatory activities.

Public Affairs provides members with information on legislative development; prepares testimony, comments, and filings regarding legislative activities, lobbies on behalf of the industry. It also includes Communications, which develops informational material for member companies and consumers and coordinates all media activity.

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 68

Please provide a detailed listing, description and quantification of the following expenses included in the above-the-line test year O&M expenses (both direct Columbia Gas and allocated NCSC expenses):

a. Travel expenses
b. Meals and Entertainment expenses
c. Expenses related to alcohol
d. Lodging expenses
e. Employee welfare expenses.
f. Employee moving expenses.
g. SERP (pension) expenses.

Response of Columbia Gas of Kentucky:

		NCSC $	Columbia Gas of Kentucky $
a.	Travel and Lodging expenses	81,529	122,247
b.	Meals and Entertainment expenses	23,682	68,748
c.	Expenses related to alcohol	1/	1/
d.	Lodging expenses	2/	2/
e.	Employee welfare expenses	1,913	0
f.	Employee moving expenses	76,358	0
g.	SERP (pension) expenses	200,853	0

1/ Neither NCSC nor Columbia Gas of Kentucky tracks this type of expense.

2/ See item a.

Attorney General Data Request Set 1
Question No. **69**
Columbia Gas of Kentucky Respondent: **Judy Cooper**

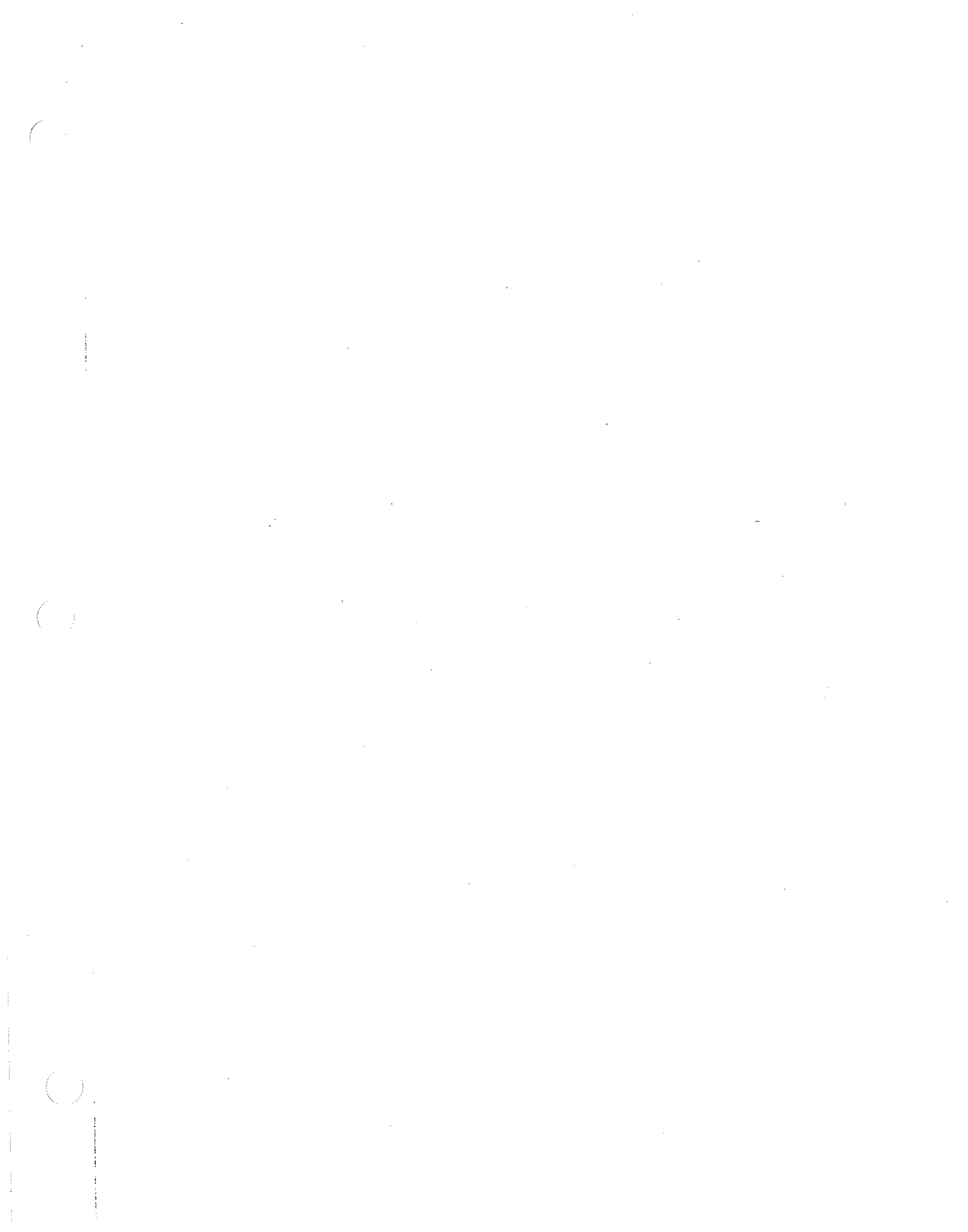
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 69

At the bottom of page 10 and top of page 11 of her direct testimony, Ms. Cooper states with regard to the AMRP mechanism: "The mechanism will recognize costs changes and rate base changes directly related to the company's investment in the AMRP and establish a charge, or credit, to customers for the net change in revenue requirement attributable to the AMRP." Please provide examples showing under what circumstances Rider AMRP would provide a credit to the ratepayers for the net change in revenue requirements attributable to the AMRP.

Response of Columbia Gas of Kentucky:

A credit could occur if the change in annual revenue requirements is a decrease in a particular year. This would only occur when the actual AMRP expenditures were captured in base rates and the operations and maintenance savings resulting from replacement of pipe exceed the recovery under the AMRP Rider. This situation is not highly likely to occur other than toward the end of the program, but the mechanism is designed for the possibility.



Attorney General Data Request Set 1
Question No. **70**
Columbia Gas of Kentucky Respondent: **Judy Cooper**

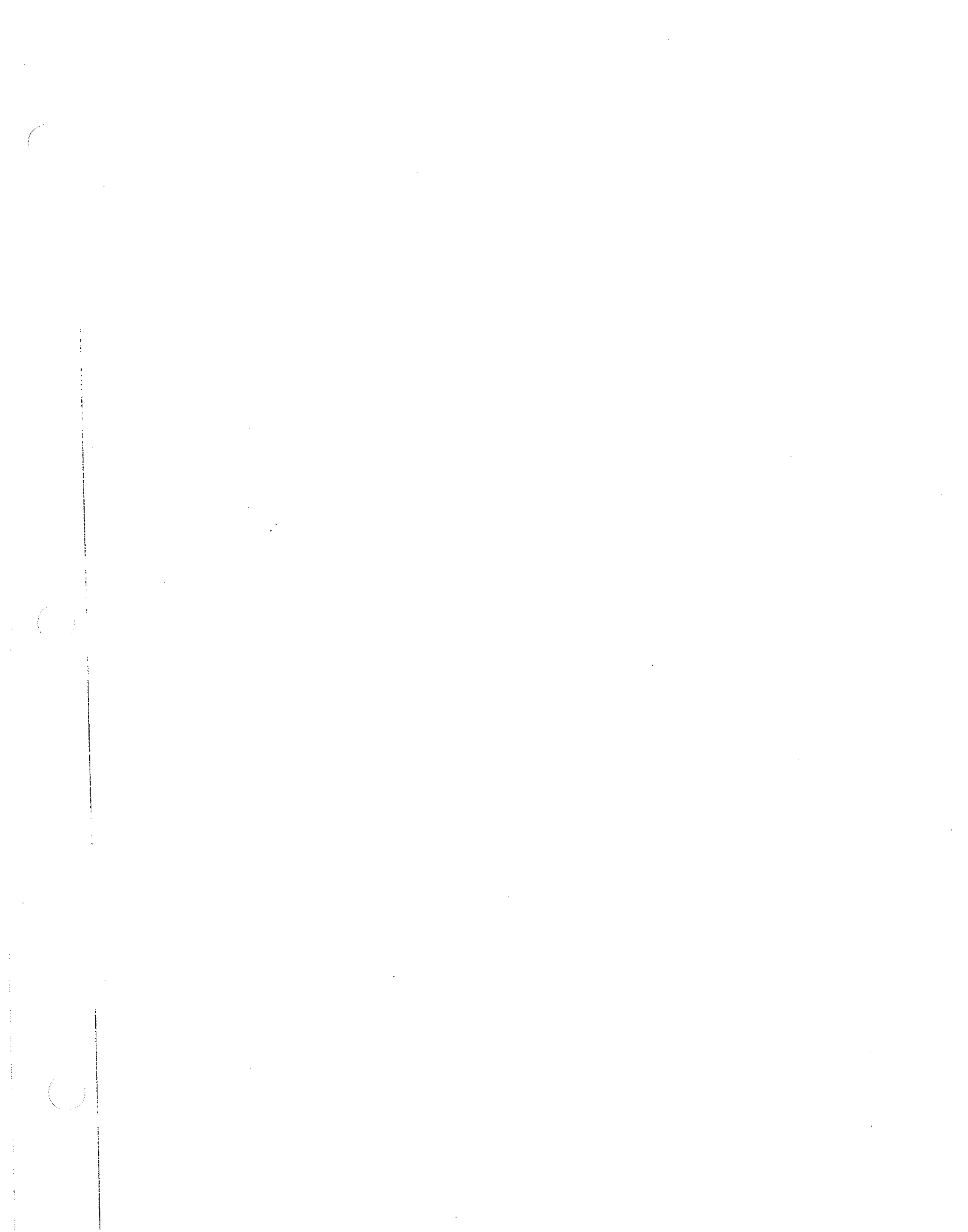
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 70

Assuming that the proposed initial AMRP were to be filed March 1, 2008, is the import of the statement made by Ms. Cooper on page 15, lines 1 – 6 that (only for this initial time) the AMRP period to calculate the AMRP revenue requirement would run from October 1, 2006 through December 31, 2007? If not, explain in more detail what the true meaning is of this statement.

Response of Columbia Gas of Kentucky:

That is correct.



**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 71

Why does Attachment JMC-3 include a line item for property taxes, uncollectible and PSC fees? Is the Company proposing to recover these expense items in Rider AMRP?

Response of Columbia Gas of Kentucky:

No, Columbia does not seek to recover these items in Rider AMRP. Please note there are no amounts indicated for these items. In order to provide an example, Columbia used a form that was used by another utility (ULH&P Duke-Kentucky) which originally requested these items be included.

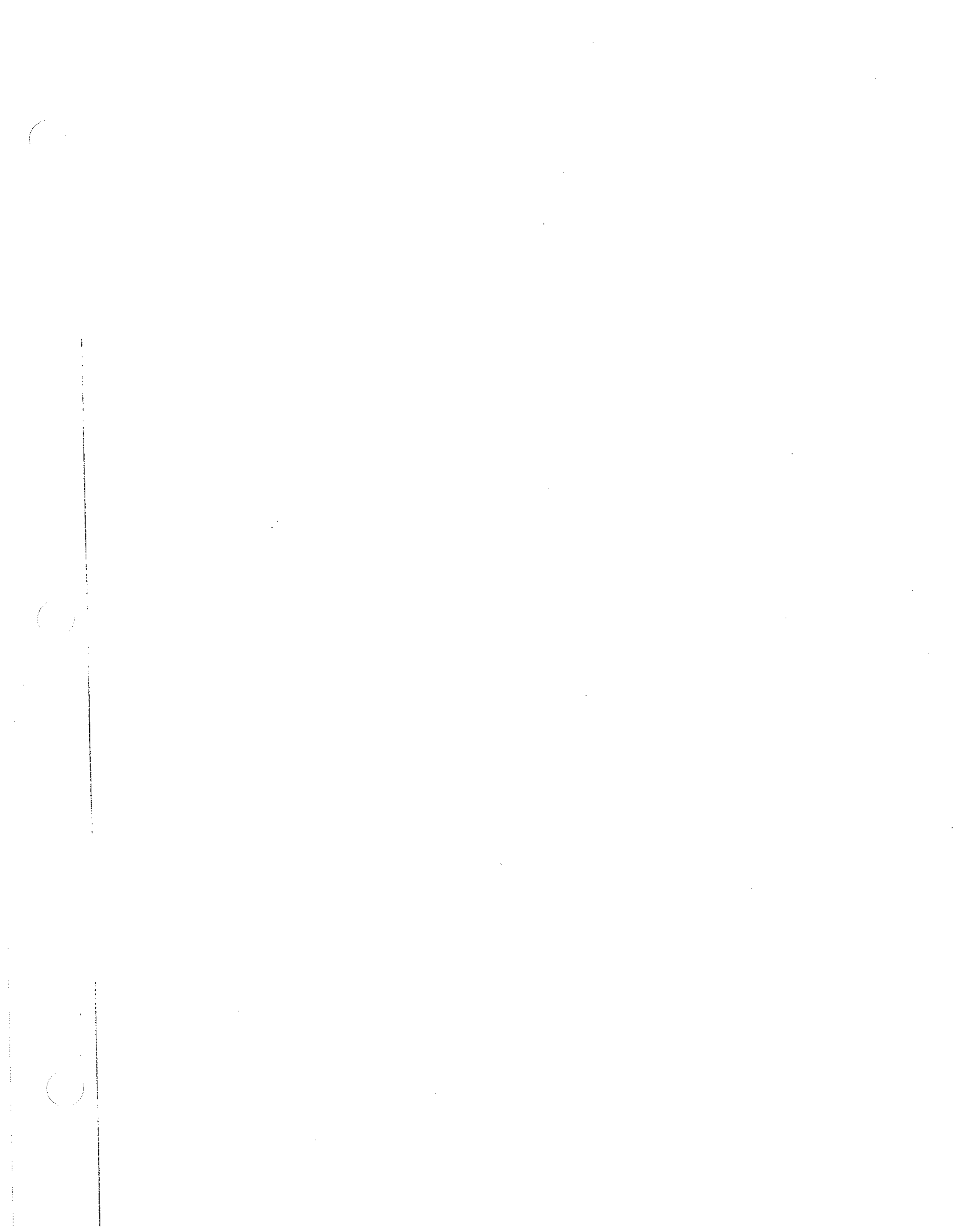
**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 72

What review process is the Company proposing for the AMRP in terms of (1) period of time; (2) participants; (3) discovery; (4) filing requirements; (5) testimonies/affidavits; (6) hearings, etc.?

Response of Columbia Gas of Kentucky:

Columbia proposed to utilize the review process as established by the Commission for Duke Energy-Kentucky.



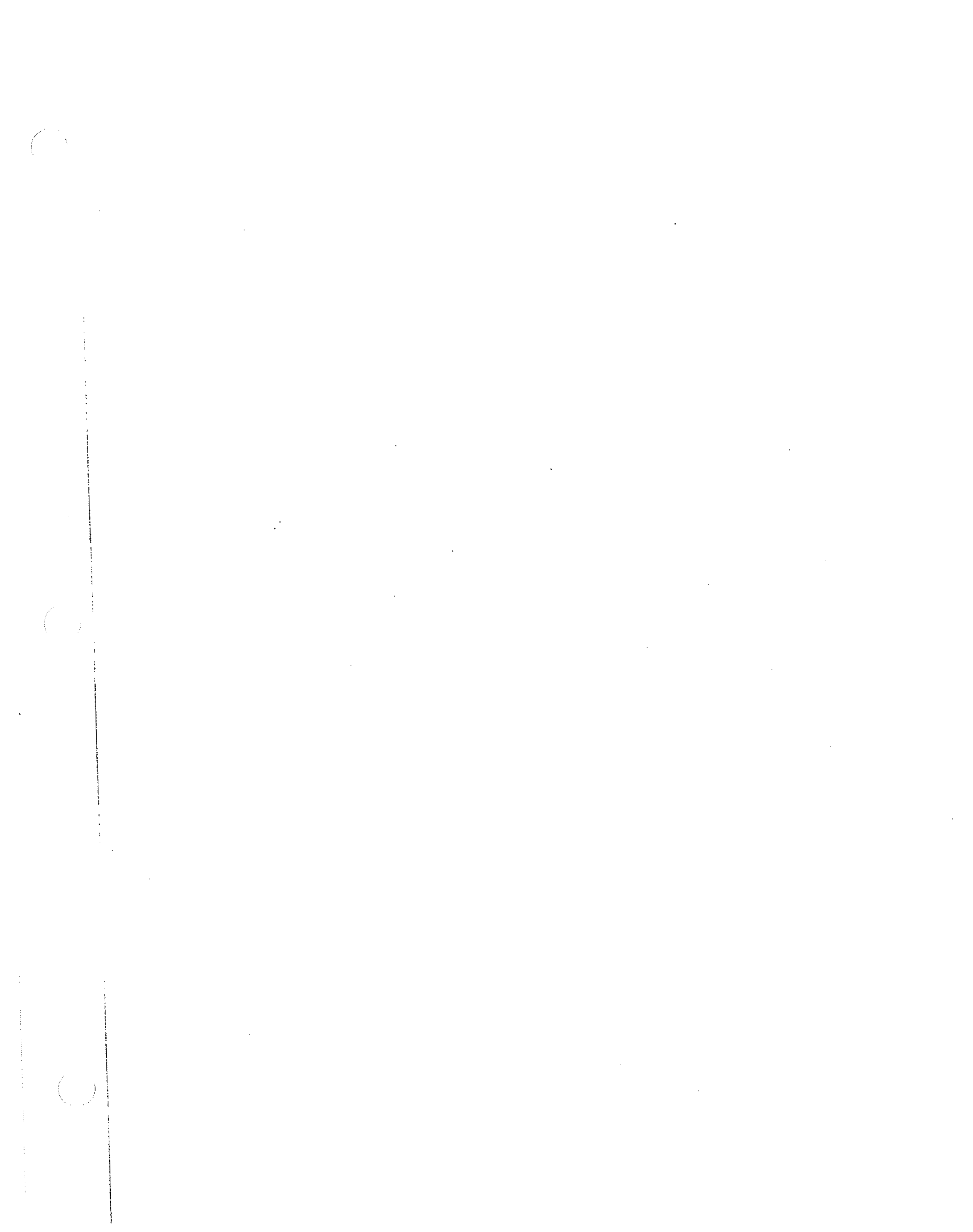
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 73

Is the Company proposing an earnings test showing the Company's achieved overall rate of return for its overall gas operations with and without the requested AMRP rate relief in each of its annual AMRP filings in order to ascertain that it will not earn in excess of its authorized rate of return with the inclusion of the requested AMRP rate relief?

Response of Columbia Gas of Kentucky:

No. As stated on page 11 of my testimony, Columbia's mechanism is modeled after that approved by the Commission for Duke Energy – Kentucky.



BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 74

Is the Company proposing caps for (1) annual AMRP rate increases; and (2) the total cumulative AMRP rate increase in-between rate cases?

Response of Columbia Gas of Kentucky:

No. As stated on page 11 of my testimony, Columbia's mechanism is modeled after that approved by the Commission for Duke Energy – Kentucky.

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 75

On page 8, lines 20 - 22 of his direct testimony, Mr. Miller claims that Columbia has experienced a decline in its overall number of customers. Please reconcile this statement to the growth in the test year number of bills for the Company's residential, commercial, industrial and wholesale sale of gas customers and for the Company's residential, commercial and industrial transportation customers, as shown in the summary boxes on Workpaper WPM-B, sheets 3 and 4 of 4.

Response of Columbia Gas of Kentucky:

Customer Attrition was calculated as follows:

	Customers	Res Non-Heat	Res Heat	Res Total	Com Non-Heat	Com Heat	Com Total
	Sept 2005 (begin)	2,171	120,882	123,053	513	13,915	14,428
Plus:	New Cust		724	724		194	194
Plus:	Conversion Cust		67	67		15	15
Plus:	Split Cust		12	12		15	15
Less:	Sept 2006 (end)	2,228	119,645	121,873	541	13,623	14,164
	Net Cust Attrition	57	(2,028)	**(1,971)**	28	(516)	**(488)**

Customer attrition was picked up in workpaper WPM-B sheets 3 and 4 of 4 which in turn was used to determine minimum charge revenue in Schedule M.

Since attrition happens over a 12 month period, CKY normally multiplies the number of lost customers by an average of 6 months to determine the total number of lost bills and resulting minimum charge revenue. This step was inadvertently omitted in the workpaper.

Residential attrition should have been (1,971) customers x 6 months = (11,826) bills. (11,826) bills x \$6.95 minimum charge = (\$82,190.70) which is the correct amount of lost revenue due to residential attrition. Compared to the amount of lost revenue embedded in Schedule M (1,971) customers x \$6.95 = (\$13.698.45), residential revenue at current rates are overstated by \$68,492.25 (\$82,190.70 – 413,698.45).

Commercial attrition should have been (488) customers x 6 months = (2,928) bills. (2,928) bills x \$18.88 minimum charge = (\$55,280.64) which is the correct amount of lost revenue due to commercial attrition. Compared to the amount of lost revenue

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DATED APRIL 10, 2007

embedded in Schedule M (488) customers x $18.88 = ($9,213.44), commercial revenue at current rates are overstated by $46,067.20 ($55,280.64 – 9,213.44).

Therefore, total overstated revenue at current rates in Schedule M is $114,559.45 ($68,492.25 + $46,067.20).

When comparing the new and conversion bills of 4,798 (4,553 residential + 245 commercial) as shown on workpaper WPM-B and calculated on workpaper WPM-E to the corrected total lost bills due to attrition of 14,754 (11,826 residential + 2,928 commercial) as calculated above, CKY had a net lost of 9,956 bills during the test year which corroborates Mr. Miller statement based on customer count data from 2001 to 2006 as referenced in the testimony of Columbia witness William M. Gresham, pages 2-4.

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 76

Starting at the bottom of page 16 and continuing on pages 17 and 18 of her testimony, Ms. Cooper explains that, through its proposed PISCC rate mechanism, the Company would continue to capitalize interest and would defer, rather than expense, depreciation expenses and property taxes on plant that has been transferred to plant in service until this plant is placed in rate base in its next rate case. These deferred costs would be recorded in a Regulatory Asset to be included in the Company's rate base in its next rate case. In this regard, please provide the following information:

a. Since this proposed rate mechanism would increase the future revenue requirement to the Company's ratepayers, explain why this proposed rate mechanism would benefit the ratepayers rather than the Company's shareholders.

b. Since this proposed rate mechanism would increase the rates to the Company's future customers, explain why this proposed rate mechanism would result in a growth in the number of future customers.

c. Confirm that this proposed rate mechanism would allow the Company to earn a return on and recovery of plant amounts greater than the true investment in plant in service as measured by generally accepted accounting principles.

Response of Columbia Gas of Kentucky:

a. The proposed rate mechanism would benefit ratepayers by decreasing the portion of Columbia's total revenue requirement attributable to each individual ratepayer in future rate cases. Ratepayers would receive a more immediate benefit in the annual AMRP Rider calculation because there would be an increased number of customers over which to spread the revenue requirement resulting in a lower per customer charge. Columbia does not assert that this mechanism benefits ratepayers rather than Company shareholders. The mechanism is a benefit to both and Columbia believes it is creating a win-win for the betterment of both interest.

b. Please see response to PSC 2-34, part a.

c. The rate mechanism would treat the PISCC calculation in very much the same manner as AFUDC is treated. The difference is that PISCC is calculated on the plant in service and not in rate base while AFUDC is based on construction work in progress and not in rate base.

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 77

With regard to the response to PSC-1-32 (re. uncollectible accounts), please provide the following information:

a. Reconcile the actual test year total company revenues of $177,995,477 to the *actual test year total company revenues* of $187,667,052 shown on Schedule C-2.1, sheet 1, line 13.

b. Reconcile the test year Current Year Provision amount of $1,151,448 to the actual per books test year uncollectible expense of $1,707,449 in account 904.

c. The uncollectible accrual rates for the test year and the years 2003 through 2005 shown at the bottom of the response averages 0.72925%. Compare this average accrual rate to the accrual rate of 1.163918% used for ratemaking purposes in this case, as shown on Schedule D-2.1, sheet 5, and explain the reasonableness of the 1.163918% rate based on this comparison.

Response of Columbia Gas of Kentucky:

a. See the table below:

		Amount
Total Sales of Gas	Schedule C-2.1, Line 7	162,437,163
Transportation Revenue	Schedule C-2.1, Line 11	15,601,328
Less Unbilled Revenue		43,014
Total Revenue (Excluding Unbilled) per PSC 1-32		177,995,477
Plus Unbilled Revenue		43,014
Forfeited Discounts	Schedule C-2.1, Line 9	388,732
Misc. Service Revenue	Schedule C-2.1, Line 10	118,856
Other Gas Department Revenue	Schedule C-2.1, Line 12	9,120,973
Total Operating Revenue per book	Schedule C-2.1, Line 13	187,667,052

b. The $1,151,448 is the provision for doubtful accounts excluding the Energy Assistance Program recoveries for the first nine months of 2006 and not for the test year. The following table reconciles the nine month of 2006 provision to the test year level.

YTD September 30, 2006	$1,151,448
4th quarter 2005 provision	$162,498
Test year EAP recoveries	$393,503
Test year bad debt expense	$1,707,449

c. The percentage at the bottom of PSC0032 Attachment is arrived at by taking the provision and dividing by total revenue as required by the data request. The 1.163918% used by the company is based on residential revenue and is applied to residential revenue to establish a level of bad debts. The table below substitutes residential revenue for total revenue to allow a proper comparison to the Company's 1.163918%. As the table show, the 1.163918% is generally lower than both the simple average and weighted average for the period noted in c.

	9/30/2006 1/	2005	2004	2003	Simple Average	Weighted Average
Residential Revenue	77,582,039	100,271,478	91,884,045	83,696,257		353,433,819
Provision	1,151,448	983,494	1,202,187	1,139,346		4,476,475
Percentage	1.48%	0.98%	1.31%	1.36%	1.28%	1.27%

1/ In PSC Set 1, No. 32, the provision for doubtful accounts was for the 9 months ended 9/30/06, while the revenue was for the 12 months ended 9/30/06. In AG Set 1, No. 77 the 9/30/06 numbers reflects 9 months of revenue and 9 months of provision.

**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 78

With regard to the response to PSC-1-28 (Professional Services), please provide the following information:

a. In the same format and detail as per Attachment Format 28, provide the actual professional services expenses (in total and broken out by legal, engineering, accounting and other) for each of the 5 calendar years prior to the test year.

b. Explain the nature and purpose of the test year expense of $52,897 for Community Action Council.

c. Explain the nature and purpose of the test year expenses of $917.77 and $82.83 for DMX Music – Chicago.

d. Explain the nature and purpose of the test year expense of $1,515.50 for Initial Tropical Plants, Inc.

e. Explain the nature and purpose of the test year expense of $3,692.50 for Marketing Services by Vectra, Inc.

f. Provide the actual total Stanley Pipeline, Inc. expenses (equivalent to the test year total expense of $4,216,366) for each of the 5 calendar years prior to the test year.

g. Explain the nature and purpose of the "Fishel Co" expenses and provide the actual total Fishel Co expenses (equivalent to the test year total expense of $3,197,742) for each of the 5 calendar years prior to the test year.

Response of Columbia Gas of Kentucky:

a. See Attachment 78. Due to the voluminous nature of this response, one paper copy is being provided to the Attorney General and one paper copy is being provided to the Commission. Electronic versions of the attachment are being provided to other parties of record.

b. The nature and purpose of the test year expense of $52,897 for Community Action Council was for expenses incurred for the administration of the EAP Program.

c. The nature and purpose of the test year expenses of $917.77 and $82.83 for DMX Music – Chicago was for the music customers hear while they are on hold on the telephone.

d. The nature and purpose of the test year expense of $1,515.50 for Initial Tropical Plants, Inc. was for plant maintenance in the 2001 Mercer Road building.

e. The nature and purpose of the test year expense of $3,692.50 for Vectra, Inc. was for bill inserts that provide customer information about programs such as the Budget Payment Plan.

f. The actual total Stanley Pipeline, Inc. expenses (equivalent to the test year total expense of $4,216,366) for each of the 5 calendar years prior to the test year were: 2005 - $1,198,418, 2004 - $57,310, 2003 - $576,410, 2002 - $1,116,799, 2001 - $1,694,110.

g. The nature and purpose of the "Fishel Co." expenses were to pay for construction work such as main line installation. The Fishel Co. also provides surveys. The actual total Fishel Co. expenses (equivalent to the test year total expense of $3,197,742) for each of the 5 calendar years prior to the test year were: 2005 - $2,429,885, 2004 - $2,802,940, 2003 - $3,804,868, 2002 - $3,547,548, 2001 - $3,689,956.

Attorney General Data Request Set 1
Question No. **79**
Columbia Gas of Kentucky Respondent: **Kelly Humrichouse**

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 79

With regard to the response to PSC -1-27, Format 27b; please provide a detailed breakout of the components making up the industry association dues of $25,741 and miscellaneous expense of $15,942.

Response of Columbia Gas of Kentucky:

Please refer to 2007-00008 AG Set 1-079 Attachment 1 for the requested information.

Columbia Gas of Kentucky, Inc.
Case No. 2007-00008
Account 930 - Misc. General Expense
Test Year September 30, 2006

Industry Association Dues

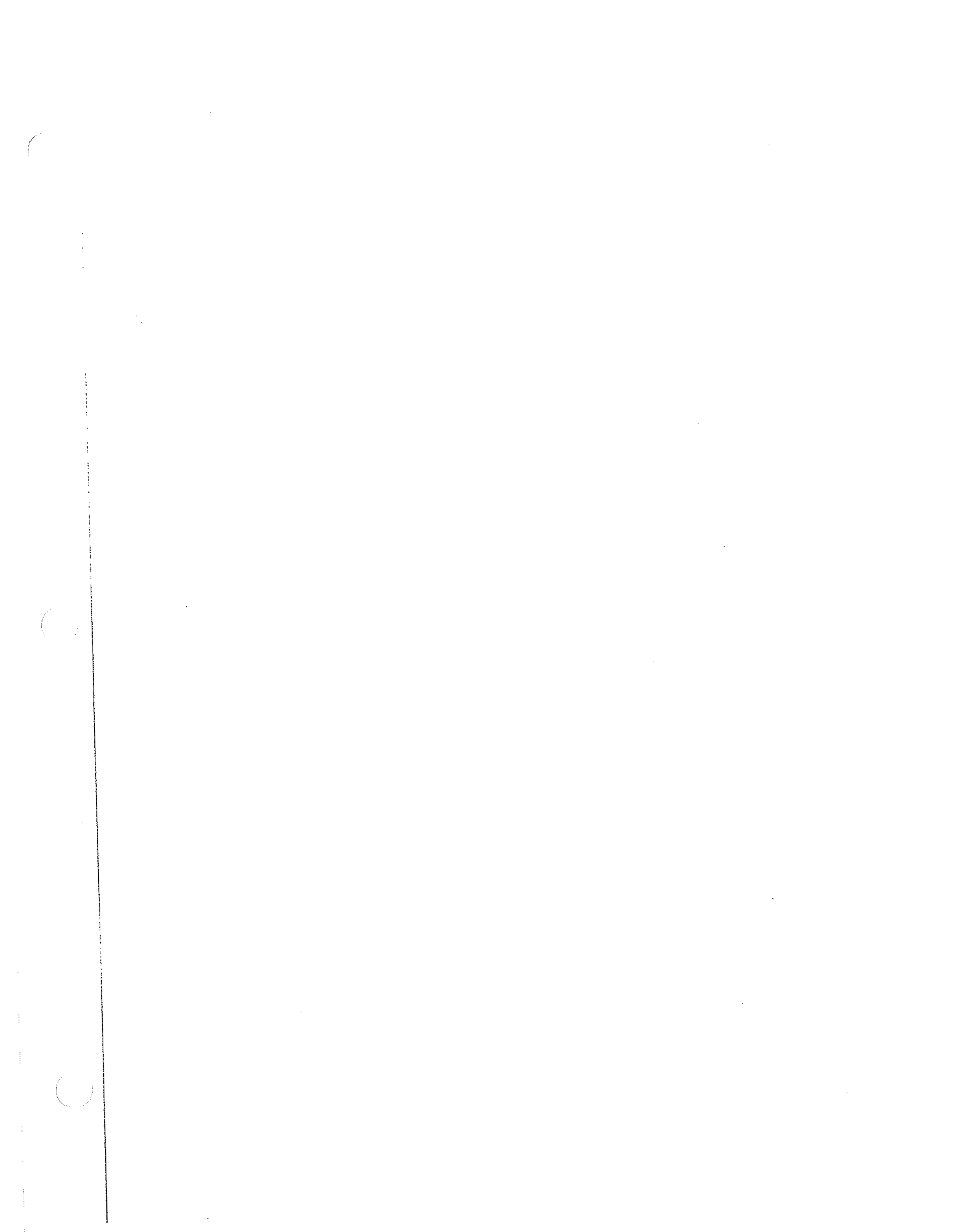
Gen	Auxiliary	CE	Activity	Description		Amount $
930	2000	5510	8190	American Gas Association Dues - 2005 4th Quarter Payment	1/	6,751
930	2000	5510	8190	American Gas Association Dues - 2006 1st Quarter Payment		6,392
930	2000	5510	8190	American Gas Association Dues - 2006 2nd Quarter Payment		6,392
930	2000	5510	8190	American Gas Association Dues - 2006 3rd Quarter Payment		6,392
930	2000	5510	8190	American Gas Association Dues - 2006 4th Quarter Payment		6,392
930	2000	5510	8190	Common Ground Alliance Corporate Membership 2006		172
				Total		32,492

Miscellaneous Expense

Gen	Auxiliary	CE	Activity	Description	Amount $
930	2000	5510	8190	Clear Convenience Bill	1,145
930	2000	5510	8190	Advantica - Software Maintenance	7,903
930	2000	8990	8190	Annual Maintenance Fee for Tracker Unclaimed Property	143
				Total	9,192

Total Account 930 $41,684

1/ The American Gas Association Dues payment for the 4th quarter of 2005 was inadvertently included in the Miscellaneous expense amount in Format 27b.



BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 81

The questions in this section refer to the testimony of Paul R. Moul:

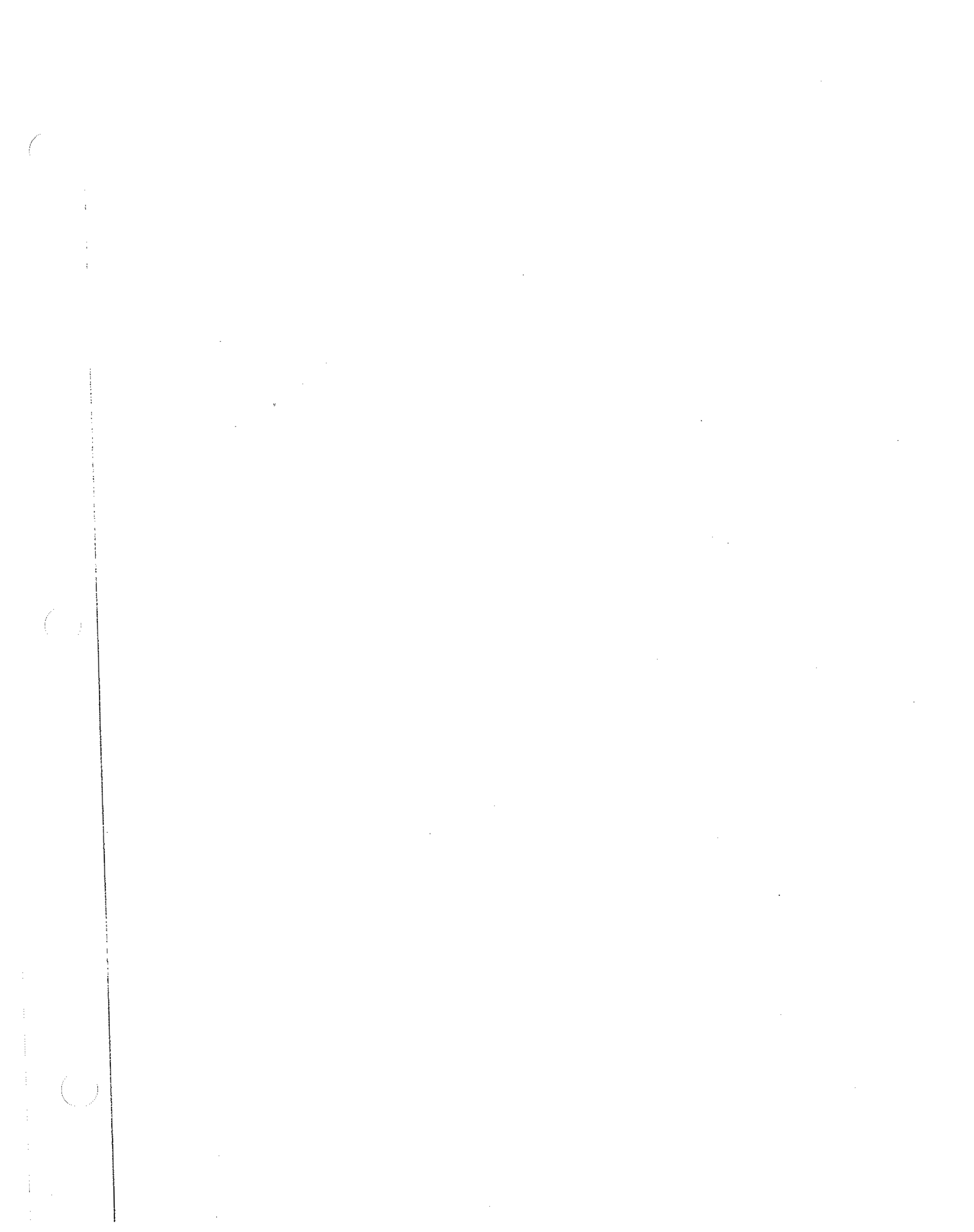
With reference to page 4, lines 12-20, please list the gas companies eliminated by each of the selection screens (iv), (v), and (vi) and the reasons or empirical values which results in these companies being eliminated.

Response of Columbia Gas of Kentucky:

Gas Group Selection Process

Ticker	Company	(iv) they have a history of increased dividends over the period	(v) they are not currently the target of a merger or acquisition	(vi) they have at least 70% of their assets subject to utility regulation.
CGC	Cascade Natural Gas	No	No	
KSE	KeySpan Corp.		No	
PGL	Peoples Energy		No	
SEN	SEMCO Energy	No	No	
SUG	Southern Union	No		
SWX	Southwest Gas	No		
UGI	UGI Corp.			No

Source of Information: Value Line Investment Survey



BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 82

The questions in this section refer to the testimony of Paul R. Moul:

With reference to page 8, lines 13-22, please provide copies of all studies performed by Mr. Moul that compare the gas consumption of the different classes on the Company's customers with that of the companies in the gas group.

Response of Columbia Gas of Kentucky:

To the extent that these data are reported to investors, the comparisons are shown below:

Gas Group Throughput
Year 2005

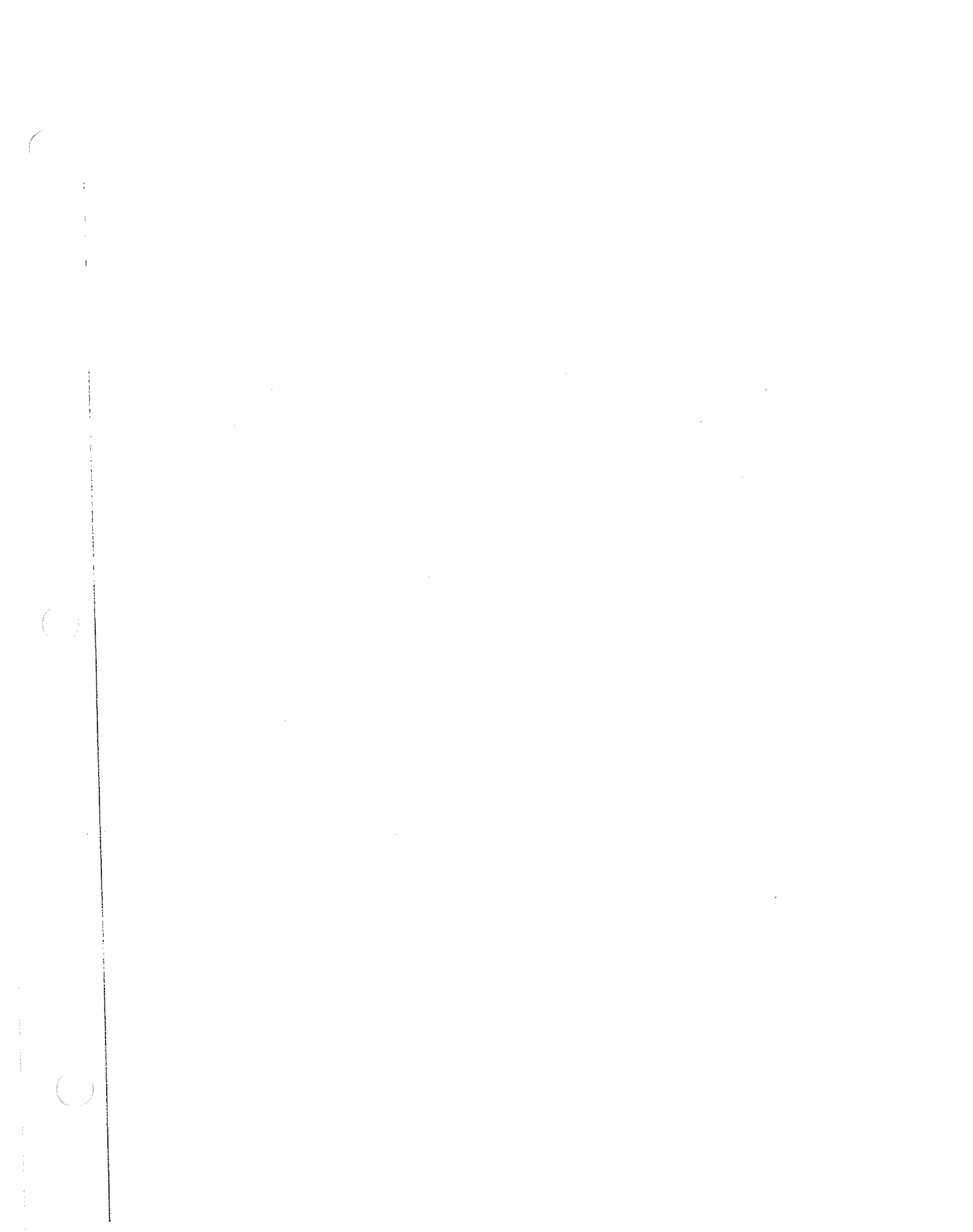
Residential	Percent
AGL Resources, Inc.	N/A
Atmos Energy Corp.	38.72%
Laclede Group, Inc.	44.43%
New Jersey Resources Corp.	35.03%
NICOR, inc.	42.54%
Northwest Natural Gas	31.88%
Piedmont Natural Gas Co.	25.91%
South Jersey Industries, Inc.	15.69%
WGL Holdings, Inc.	38.04%
Average	34.03%

Commercial	
AGL Resources, Inc.	N/A
Atmos Energy Corp.	22.09%
Laclede Group, Inc.	19.72%
New Jersey Resources Corp.	9.06%
NICOR, inc.	9.50%
Northwest Natural Gas	20.15%
Piedmont Natural Gas Co.	17.61%
South Jersey Industries, Inc.	8.01%
WGL Holdings, Inc.	14.02%
Average	15.02%

Industrial	
AGL Resources, Inc.	N/A
Atmos Energy Corp.	7.04%
Laclede Group, Inc.	0.00%
New Jersey Resources Corp.	0.00%
NICOR, inc.	1.34%
Northwest Natural Gas	19.47%
Piedmont Natural Gas Co.	39.67%
South Jersey Industries, Inc.	10.19%
WGL Holdings, Inc.	0.00%
Average	9.71%

All Other [1]	
AGL Resources, Inc.	N/A
Atmos Energy Corp.	32.15%
Laclede Group, Inc.	35.85%
New Jersey Resources Corp.	55.91%
NICOR, inc.	46.62%
Northwest Natural Gas	28.50%
Piedmont Natural Gas Co.	16.81%
South Jersey Industries, Inc.	66.10%
WGL Holdings, Inc.	47.94%
Average	41.24%

[1] Consists of: agricultural, public authorities, transportation, off-system, interruptible, incentive, power generation, cogeneration, capacity release & storage, and other sales.



Attorney General Data Request Set 1
Question No. **83**
Columbia Gas of Kentucky Respondent: **P.R. Moul**

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 83

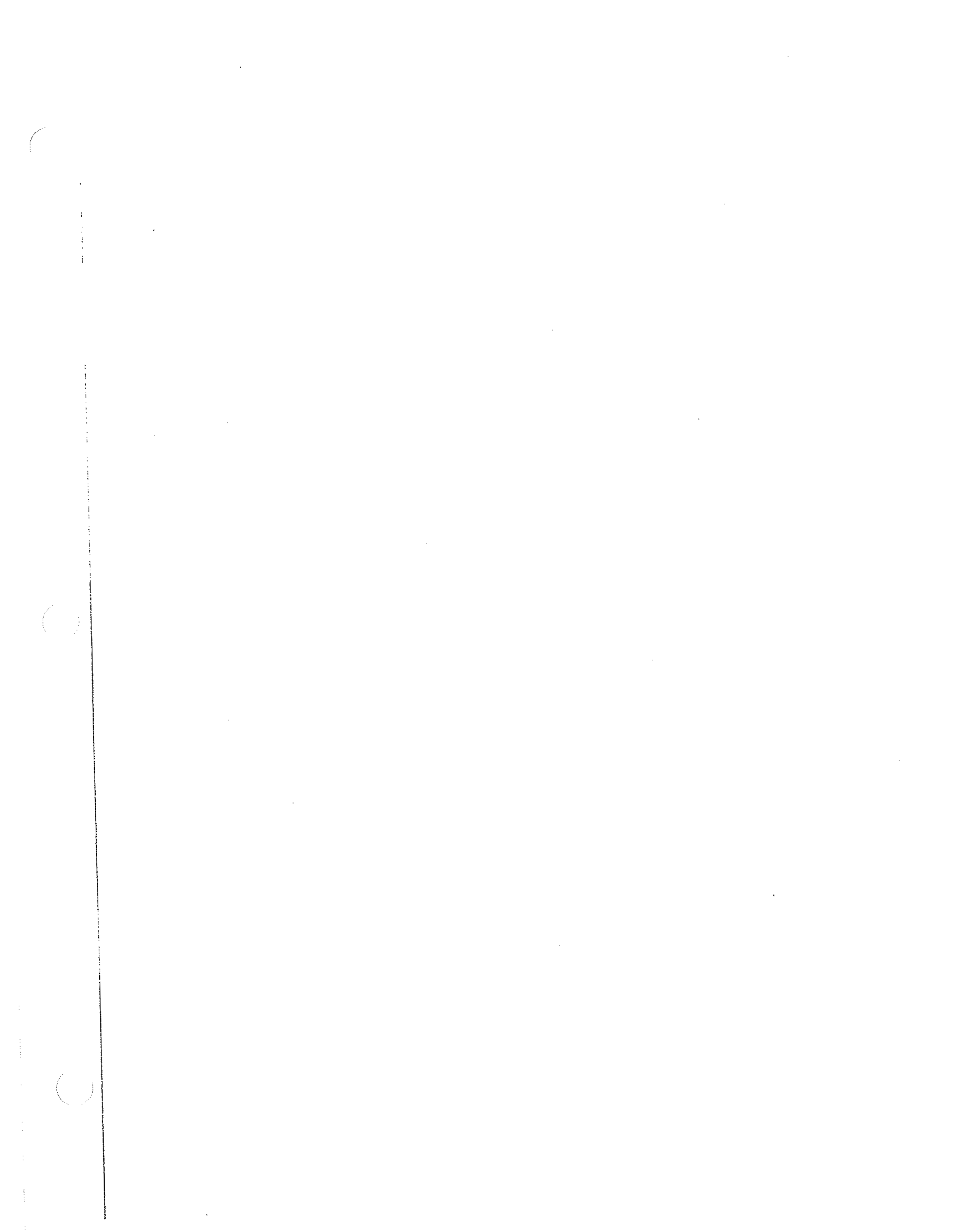
The questions in this section refer to the testimony of Paul R. Moul:

With reference to page 9, lines 4-15, please provide copies of all studies performed by Mr. Moul that compare the magnitude of the capital expenditure program for the Company with that of the companies in the gas group.

Response of Columbia Gas of Kentucky:

The forecast capital expenditures for Columbia are estimated to be approximately $67.7 million during the years 2006 through 2010. Based upon data revealed to investors in filings with the SEC, the forecast construction expenditures for the Gas Group are:

Company	Period	Amount		
AGL Resources, Inc.	2006	$	233	($ millions)
Atmos Energy Corp.		N/A		
Laclede Group, Inc.	2006	$	57	($ millions)
New Jersey Resources Corp.	2006 & 2007	$	139.1	($ millions)
NICOR, Inc.	2006	$	198	($ millions)
Northwest Natural Gas	2006 through 2010	$500 to $600		($ millions)
Piedmont Natural Gas Co.	2006	$	181.2	($ millions)
South Jersey Industries, Inc.	2006, 2007 & 2008	$	147.4	($ millions)
WGL Holdings, Inc.	2006 through 2010		$815.2	($ millions)



**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 84

The questions in this section refer to the testimony of Paul R. Moul:

With reference to page 10, lines 4-18, please provide copies of all source documents used to determine that the companies in the gas group have tariff mechanisms similar to the WNA. For each company, please highlight the relevant section (s) of the source documents.

Response of Columbia Gas of Kentucky:

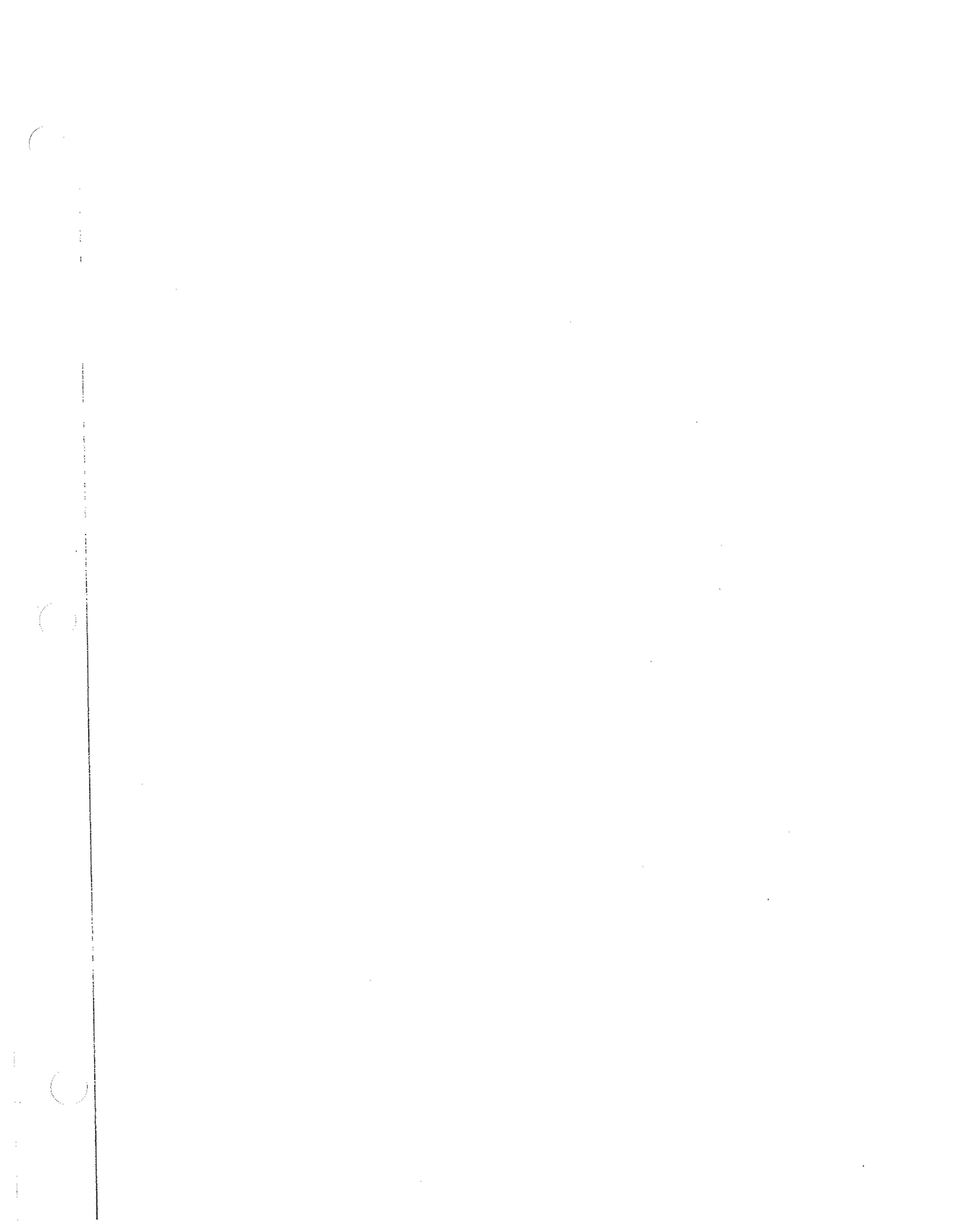
Please refer to the tabulation that is attached. The source of this information was filings by each company with the SEC and/or tariff information posted on the Company's internet website. All of the sources are available on the internet.

AGL Resources, Inc.

Weather Normalization Adjustment Rider (TN)	For residential, multi-family and C&I General Service customers from November - April annually. Implemented in 1991, it uses predetermined factors as determined in a rate case of a Weighted Average Non-Gas Base Rate, a Heat Sensitive Factor, and a Base Load factor for each customer class in CCF along with the difference between Normal and Actual Degree Days to calculate an adjustment.
Interruptible Margin Credit Rider (TN)	Interruptible Margin Credit Rider applies to firm customers and recovers 90% of fiscal year annual gross margin losses resulting from negotiated rate contracts and 50% of gross margin losses resulting from off-system sales transactions.
Performance-Based Ratemaking Mechanism (PBRM) (TN)	The PBRM is a trigger for a reporting mechanism, not a cost-sharing mechanism. Commencing each July 1, an annual index is created that establishes predetermined monthly benchmark indices against which actual commodity gas costs are compared. Annual reporting required if there is a minimum 1% overrun deviation at the end of the plan year, and monthly reporting required if there is a deviation of over 2% for any month.
Rider B - Weather Normalization Clause (WNC) (NJ)	Applicable October - May annually to residential, multi-family and general service customers. Uses three factors: 1) Degree Days - Takes difference in degree days from a monthly list of degree day factors determined in each rate case with a 0.5% deadband; 2) Consumption Factor - Takes difference in number of customers and therms per degree day, using a monthly listing of baseline values for each updated annually; 3) Margin Revenue Factor - Weighted average of tail block margin of Distribution Charges, set at $.2242/therm in most recent rate case.
Rider C - On-System Margin Sharing Credit (OSMC) (NJ)	Monthly per therm credit for all full-service and residential transportation customers to reflect system margin over-recovery . One rate for all classes and period months set annually on July 31, utilizing an annual program period of July 1 - June 30.
Rider D - Societal Benefits Charge (SBC) including NJ Clean Energy Program (NJ)	Monthly per therm charge, applicable to all service classes except special contracts, that has 4 specified components representing charges for: 1) New Jersey Clean Energy Program (CEP); 2) Remediation Adjustment Charge (RAC) for costs incurred in manufactured gas plant remediation; 3) Energy Education Charge (EEC); and 4) Universal Service Fund Lifeline (USF). Each component is a per therm charge (same per month), determined annually. Each of the CEP, the RAC and the EEC have annual recovery periods of October 1 - September 30 of expenses incurred for the previous 12 months ended June 30, with annual filing by July 31.
Rider B - Energy Conservation Cost Recovery Adjustment (ECCR) (FL)	Per therm charge applied monthly and determined annually for each of 9 rate classes to recover conservation expenditures. Each rate class has a different charge that is the same each month. Annual program period commencing each January 1.
Rider C - Competitive Rate Adjustment (CRA) (FL)	Per therm adjustment to recover the difference in annual revenues from special contracts compared to tariff rates. Annual adjustment period January 1 - December 31 to recover or refund amounts of the annual determination period of 12 months ended September 30. Adjustment rate is the same per class and therm over the adjustment period, using sales forecasts and annual true-ups.
Rider B, the Experimental Weather Normalization Adjustment Rider, was filed and effected as of October 3, 2002. (VA)	First WNA approved in the State of Virginia - filed in April, 2002 and effective October 3, 2002. For residential, multi-family and general service customers from November - May annually. Uses predetermined (@ each rate case) factors of a Weighted Average Non-Gas Base Rate and a Customer Usage Per Degree Day rate that are multiplied by the number of bills issued in that billing cycle and the difference between Normal and Actual Degree Days. This product is divided by the aggregate volume of gas billed in that cycle for each customer class in CCF to calculate an adjustment.
Straight Fixed Variable Rates (SFV) (GA)	SFV is a method of determining demand and commodity rates whereby all costs classified as fixed are assigned to the demand component. Required through SB 215, Georgia's 1997 Natural Gas Competition and Deregulation Act; Effective July, 1998.
Pipeline Replacement Program (PRP) Cost Recovery Rider (GA)	Recovers costs of replacing bare steel and cast iron pipe. Approved in September, 1998 and applicable to 6 Firm distribution rate class schedules, until June, 2005 was equal to a forecast amount of associated costs for a year divided by the estimated number of customers in those rate classes. A Stipulation Agreement was reached on June 10, 2005 in a general rate case 18638-U whereby each class pays a fixed monthly charge depending on their classification. A specific scheduled monthly per customer charge was set for residential and small service classes, with the General G-11 service class paying 3x and the General - Conditional G-12 service class paying 12x the residential and small service amount of $1.29 through 9/30/07, and $1.95 after.

Social Responsibility Cost Rider (SRC) (GA)	Senior citizens at least 65 with a maximum annual income of $12,000 receive a maximum $14 monthly credit. The SRC rider recovers $10.50 of that amount, and is charged to remaining residential customers during the following month as a per customer charge.

	2006	2005	2004	2003	2002	2001
Weather Normalization Adjustment Rider (TN)	X	X	X	X	X	X
Interruptible Margin Credit Rider (TN)	X	X	X			
Performance-Based Ratemaking Mechanism	X	X	X			
Rider B - Weather Normalization Clause (WNC)	X	X	X	X	X	X
Rider C - On-System Margin Sharing Credit (OSMC) (NJ)	X	X	X	X	X	X
Rider D - Societal Benefits Charge (SBC) including NJ Clean Energy Program (NJ)	X	X	X	X	X	X
Cost Recovery Adjustment (ECCR) (FL)	X	X	X			
Rider C - Competitive Rate Adjustment (CRA) (FL)	X	X	X			
Rider B, the Experimental Weather Normalization Adjustment Rider, was filed and effected as of October 3,	X	X	X	X	X	
Straight Fixed Variable Rates (SFV) (GA)	X	X	X	X	X	X
Pipeline Replacement Program (PRP) Cost Recovery Rider (GA)	X	X	X	X	X	X
Social Responsibility Cost Rider (SRC) (GA)	X	X	X	X	X	



**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 85

The questions in this section refer to the testimony of Paul R. Moul:

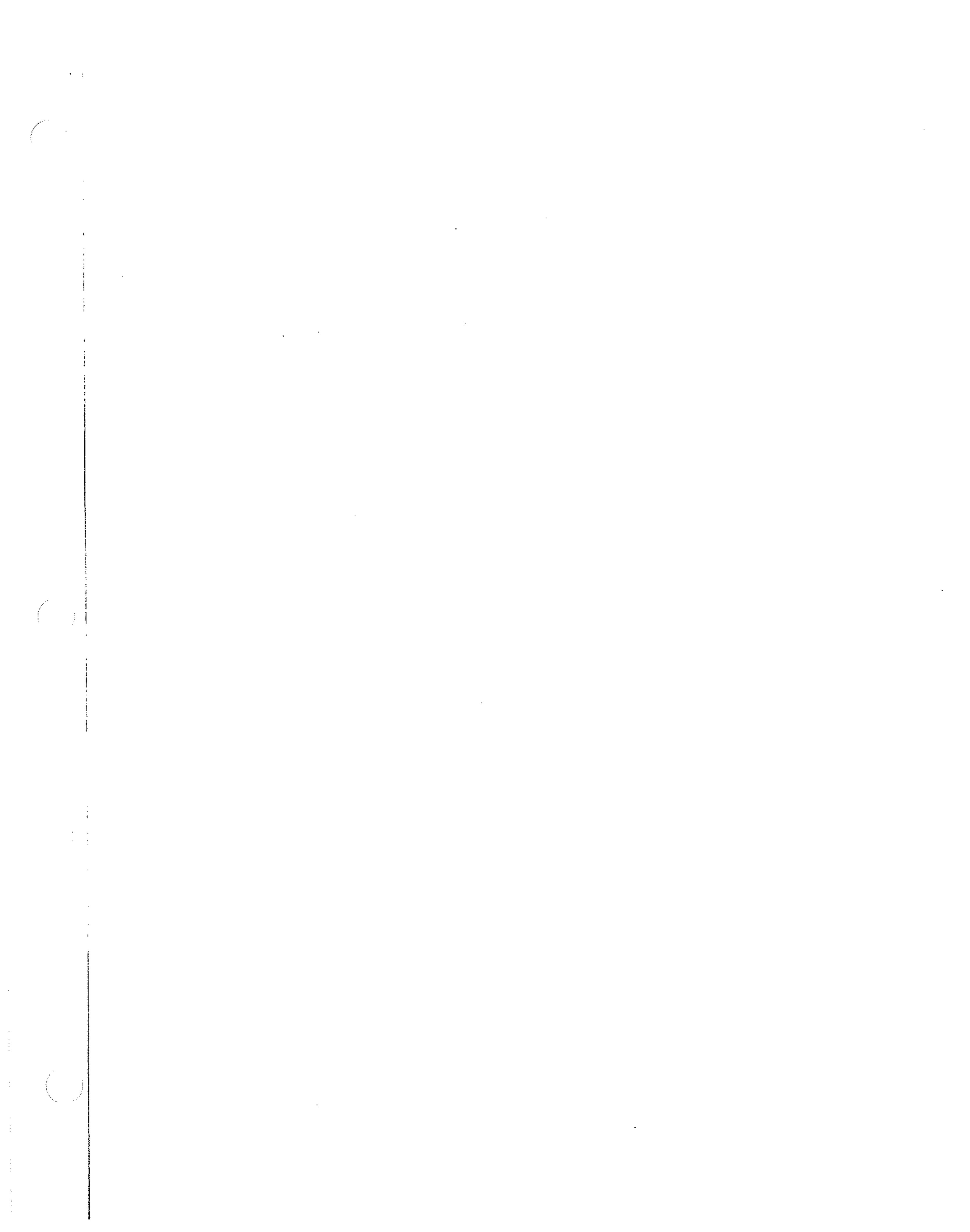
With reference to page 11, lines 1-23, please indicate whether it is Mr. Moul's testimony that a WNA reduces the volatility of revenues and therefore the riskiness of a gas utility. If the response is that a WNA does not reduce the volatility of revenues and therefore the riskiness of a gas utility, please provide (a) all empirical studies relied upon to support this conclusion, and (b) the Company's justification for a WNA if such a mechanism does pass along the risk of higher gas prices to customers.

Response of Columbia Gas of Kentucky:

Please refer to Mr. Moul's testimony at pages 9 through 12 regarding the risk implications of the WNA.

a. No additional empirical studies were relied upon.

b. Both higher and lower prices of gas are recoverable through the Company's Cost of Gas Adjustment ("GCA") mechanism. The WNA is designed to adjust volumes, rather than the cost of gas.



Attorney General Data Request Set 1
Question No. **86**
Columbia Gas of Kentucky Respondent: **P.R. Moul**

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

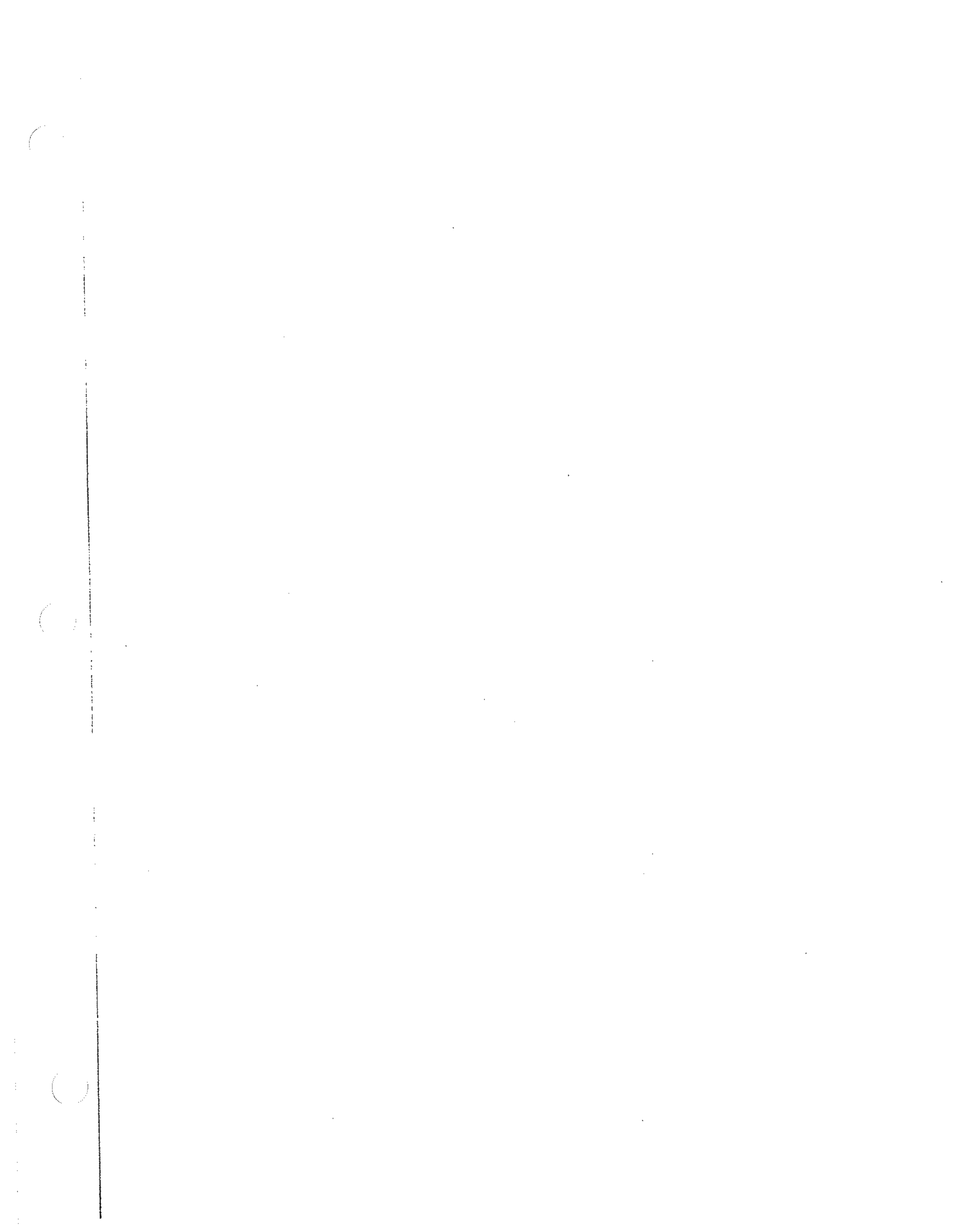
Question No. 86

The questions in this section refer to the testimony of Paul R. Moul:

With reference to page 12, lines 1-6, please provide copies of all studies relied upon to conclude that the stability of a Company's cash flow does not affect a company's riskiness and the cost of equity capital.

Response of Columbia Gas of Kentucky:

There is no statement regarding the stability of cash flows and risk on lines 1-6 of page 12.



BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

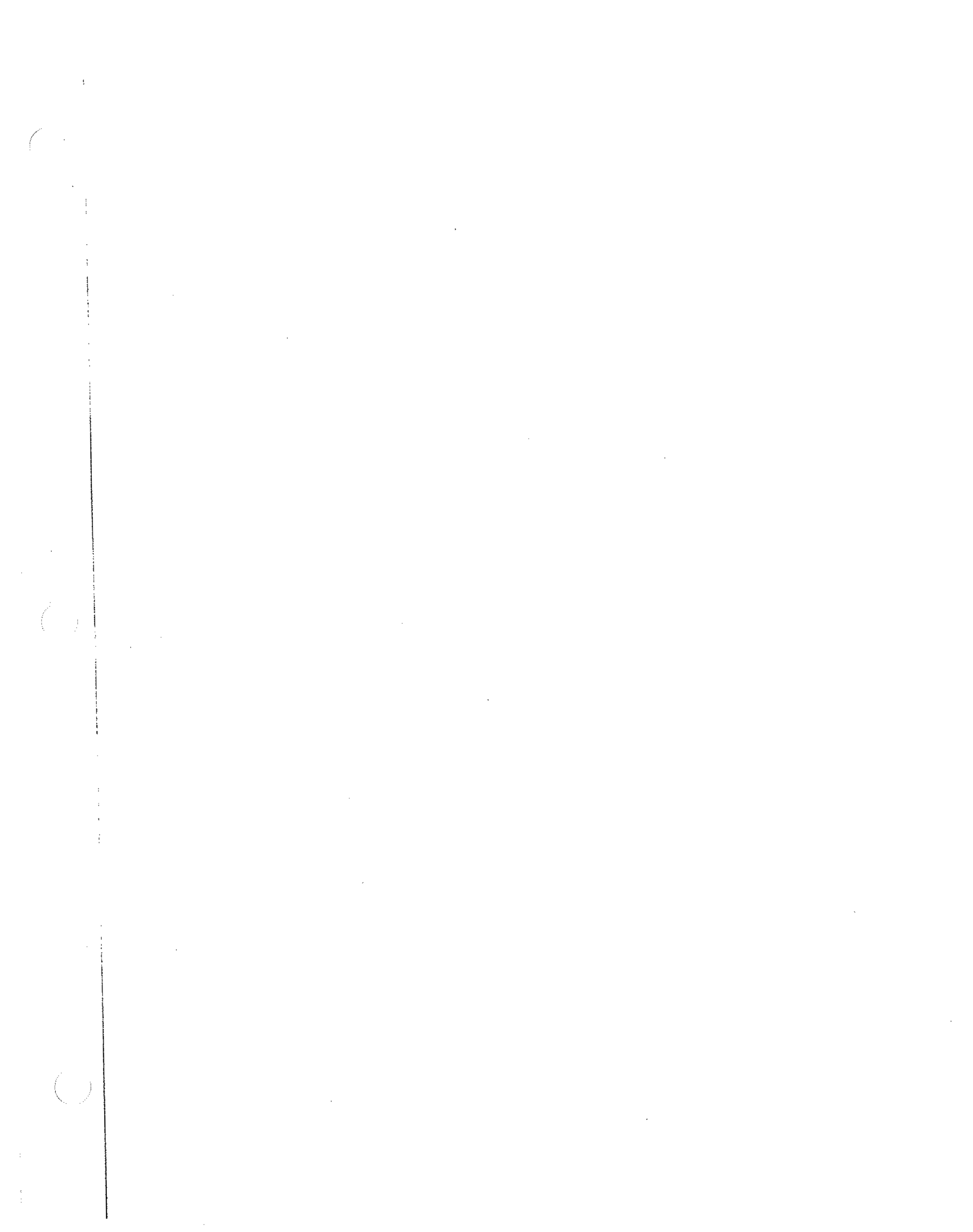
Question No. 87

The questions in this section refer to the testimony of Paul R. Moul:

With reference to page 14, lines 4-11, please provide Columbia of Kentucky's CCR and LT or, if the Company is not rated, please provide the CCR and LT for the parent company.

Response of Columbia Gas of Kentucky:

Columbia Gas of Kentucky, Inc. does not have a CCR or LT rating because its debt is not rated. Currently, the corporate credit rating from Standard & Poor's Corporation for NiSource, Inc. is BBB and the long-term issuer rating from Moody's is Baa3.



BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 88

The questions in this section refer to the testimony of Paul R. Moul:

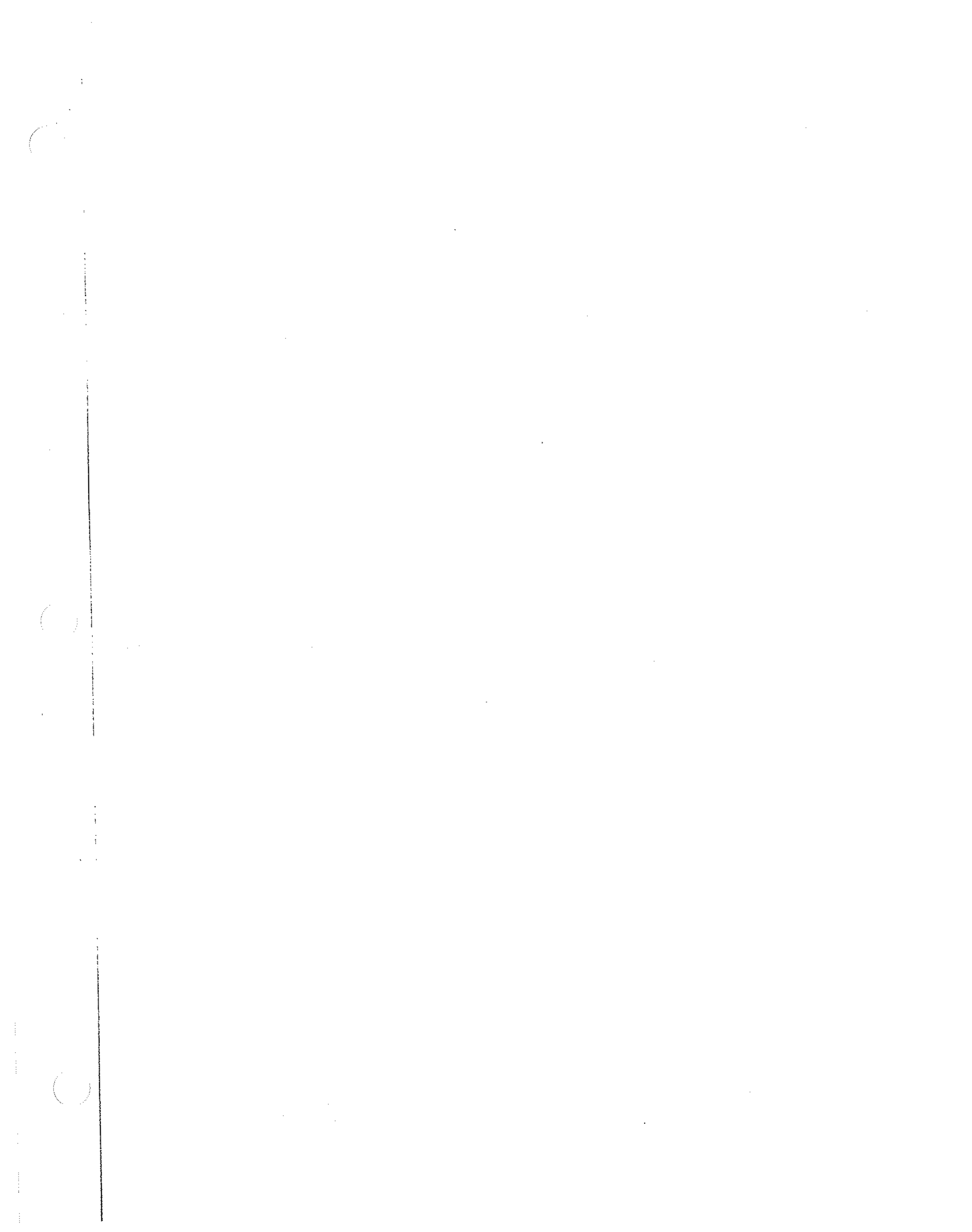
With reference to page 16 and 17, please provide the individual company data used in computing the (1) coefficients of variation for the return on book equity, (2) operating ratios, (3) interest coverage ratios, and (4) internally generated funds ratio, for the Company and the gas group. Please provide the data in both hard copy and electronic formats (Microsoft Excel), with all data and formulas in tact.

Response of Columbia Gas of Kentucky:

(1), (2), (3), and (4)

The coefficients of variation (standard deviation ÷ mean) of the rates of return on book equity are provided below. Likewise, the operating ratios, interest coverage ratios and internally generated funds are shown on page 2.

	2004	2003	2002	2001	2000	Average	Standard Deviation	Coefficient of Variation
Coefficients of Variation								
COLUMBIA GAS OF KY, INC.	10.0%	10.6%	16.7%	15.7%	11.5%	12.9%	3.1%	0.240
AGL RESOURCES INC	12.9%	12.7%	15.6%	14.4%	13.7%			
ATMOS ENERGY CORP	9.9%	8.6%	10.8%	9.9%	11.5%			
LACLEDE GROUP INC	11.0%	11.0%	11.8%	7.8%	10.6%			
NEW JERSEY RESOURCES CORP	15.8%	16.1%	16.6%	15.9%	16.3%			
NICOR INC	17.4%	9.9%	14.7%	17.8%	17.2%			
NORTHWEST NATURAL GAS CO	*10.0%*	9.4%	9.2%	8.7%	10.4%			
PIEDMONT NATURAL GAS CO	11.6%	12.8%	12.1%	10.8%	12.0%			
SOUTH JERSEY INDUSTRIES INC	13.1%	13.5%	12.8%	12.6%	12.7%			
WGL HOLDINGS INC	11.8%	11.5%	14.2%	5.0%	11.0%			
Group Average	12.6%	11.7%	13.1%	11.4%	12.8%	12.3%	0.7%	0.057
Operating Ratios								
COLUMBIA GAS OF KY, INC.	92.0%	90.0%	86.0%	84.4%	90.9%	88.7%		
AGL RESOURCES INC	83.7%	81.9%	75.4%	76.0%	80.1%			
ATMOS ENERGY CORP	93.0%	93.4%	93.3%	83.7%	91.0%			
LACLEDE GROUP INC	94.4%	93.6%	92.4%	92.1%	92.8%			
NEW JERSEY RESOURCES CORP	95.7%	95.0%	95.2%	94.3%	95.1%			
NICOR INC	94.9%	93.6%	92.9%	88.1%	90.7%			
NORTHWEST NATURAL GAS CO	85.7%	84.5%	83.3%	81.9%	83.1%			
PIEDMONT NATURAL GAS CO	89.9%	88.3%	88.3%	85.5%	88.4%			
SOUTH JERSEY INDUSTRIES INC	88.9%	88.9%	88.8%	86.3%	91.8%			
WGL HOLDINGS INC	86.9%	84.7%	82.6%	86.4%	86.2%			
Group Average	90.3%	89.3%	88.0%	86.0%	88.8%	88.5%		
Interest Coverage (Pre-tax)								
COLUMBIA GAS OF KY, INC.	4.33 x	4.84 x	6.74 x	5.86 x	3.28 x	5.01 x		
AGL RESOURCES INC	3.84 x	4.42 x	3.94 x	2.87 x	2.72 x			
ATMOS ENERGY CORP	2.59 x	3.05 x	2.95 x	2.55 x	2.83 x			
LACLEDE GROUP INC	3.00 x	2.93 x	2.99 x	2.35 x	2.57 x			
NEW JERSEY RESOURCES CORP	6.92 x	8.28 x	8.54 x	6.46 x	5.16 x			
NICOR INC	4.55 x	3.52 x	5.48 x	5.75 x	4.82 x			
NORTHWEST NATURAL GAS CO	3.39 x	3.11 x	2.84 x	2.92 x	3.21 x			
PIEDMONT NATURAL GAS CO	4.39 x	4.15 x	3.92 x	3.34 x	3.27 x			
SOUTH JERSEY INDUSTRIES INC	4.93 x	4.50 x	3.82 x	3.40 x	2.96 x			
WGL HOLDINGS INC	4.83 x	4.60 x	4.92 x	2.58 x	3.81 x			
Group Average	4.27 x	4.28 x	4.38 x	3.58 x	3.48 x	4.00 x		
Internally Generated Funds								
COLUMBIA GAS OF KY, INC.	-351.8%	75.7%	172.1%	64.8%	615.6%	115.3%		
AGL RESOURCES INC	113.9%	87.5%	131.9%	115.3%	91.0%			
ATMOS ENERGY CORP	72.0%	80.3%	101.2%	80.2%	88.4%			
LACLEDE GROUP INC	64.8%	99.4%	99.1%	56.1%	56.0%			
NEW JERSEY RESOURCES CORP	96.9%	100.1%	133.8%	91.6%	107.2%			
NICOR INC	64.6%	99.5%	171.0%	144.4%	115.1%			
NORTHWEST NATURAL GAS CO	65.9%	70.7%	59.4%	109.3%	75.1%			
PIEDMONT NATURAL GAS CO	72.2%	95.8%	162.4%	98.4%	64.9%			
SOUTH JERSEY INDUSTRIES INC	47.0%	89.6%	118.9%	59.8%	52.9%			
WGL HOLDINGS INC	124.4%	137.1%	135.4%	26.0%	96.5%			
Group Average	80.2%	95.6%	123.7%	86.8%	83.0%	93.9%		



BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 89

The questions in this section refer to the testimony of Paul R. Moul:

With reference to pages 21 and 22, and Attachment PRM-3, please provide all source documents and work papers, in both hard copy and electronic formats, associated with the development of the amounts, ratios, and rates in the hypothetical structure, the long-term debt cost rate, and the short-term debt cost rate.

Response of Columbia Gas of Kentucky:

There are no separate work papers regarding pages 21 and 22 of the direct testimony and Attachment PRM-5 (sic) concerning the hypothetical capital structure ratios. A copy of the Value Line pages that were used as the source for the ratios shown on page 21 are attached. A copy of Attachment PRM-5 (sic) is attached. Electronic copies of both the pdf files for Value Line pages and PRM-5 has been provided in electronic format on a CD.

AGL RESOURCES NYSE-ATG

RECENT PRICE 35.97 | P/E RATIO 14.2 (Trailing: 13.3 Median: 14.0) | RELATIVE P/E RATIO 0.84 | DIV'D YLD 4.2% | VALUE LINE

TIMELINESS 4 Lowered 8/11/06

SAFETY 2 New 7/27/90

TECHNICAL 3 Lowered 9/1/06

BETA .95 (1.00 = Market)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
High:	20.0	22.0	21.6	23.4	23.4	23.2	24.5	25.0	29.3	33.7	39.3	40.0
Low:	14.9	17.1	17.8	17.7	15.6	15.5	19.0	17.3	21.9	26.5	32.0	34.4

Target Price Range 2009 | 2010 | 2011

LEGENDS
— 1.15 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 12/95
Options: Yes
Shaded area indicates recession

2009-11 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	50	(+40%)	12%
Low	40	(+[illegible]%)	7%

Insider Decisions

	O	N	D	J	F	M	A	M	J
to Buy	0	0	0	0	0	0	0	0	0
Options	1	2	1	0	1	1	0	0	0
to Sell	1	1	1	0	0	1	0	0	0

Institutional Decisions

	4Q2005	1Q2006	2Q2006
to Buy	109	110	95
to Sell	88	83	102
Hld's(000)	49186	45106	49525

Percent shares traded 12 / 8 / 4

% TOT. RETURN 8/06

	THIS STOCK	VL ARITH. INDEX
1 yr.	1.6	7.1
3 yr.	47.1	49.4
5 yr.	111.0	70.4

1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	© VALUE LINE PUB., INC.	09-11
22.58	20.26	20.43	22.73	23.59	19.32	21.91	22.75	23.36	18.71	11.25	19.04	15.32	15.25	23.89	34.98	*35.55*	*36.10*	Revenues per sh A	*38.45*
2.04	2.07	2.31	2.25	2.24	2.33	2.49	2.42	2.65	2.29	2.86	3.31	3.39	3.47	3.29	4.20	*4.40*	*4.50*	"Cash Flow" per sh	*4.85*
1.01	1.04	1.13	1.08	1.17	1.33	1.37	1.37	1.41	.91	1.29	1.50	1.82	2.08	2.28	2.48	*2.65*	*2.70*	Earnings per sh A B	*2.95*
.98	1.02	1.03	1.04	1.04	1.04	1.06	1.08	1.08	1.08	1.08	1.08	1.08	1.11	1.15	1.30	*1.50*	*1.58*	Div'ds Decl'd per sh C ■	*1.75*
2.73	2.95	2.74	2.49	2.37	2.17	2.37	2.59	2.05	2.51	2.92	2.83	3.30	2.46	3.44	3.44	*2.80*	*3.10*	Cap'l Spending per sh	*2.25*
8.97	9.42	9.70	9.90	10.19	10.12	10.56	10.99	11.42	11.59	11.50	12.19	12.52	14.66	18.06	19.29	*20.40*	*21.50*	Book Value per sh D	*24.90*
44.32	47.57	48.69	49.72	50.86	55.02	55.70	56.60	57.30	57.10	54.00	55.10	56.70	64.50	76.70	77.70	*77.90*	*78.00*	Common Shs Outst'g E	*78.30*
14.2	15.3	15.5	17.9	15.1	12.6	13.8	14.7	13.9	21.4	13.6	14.6	12.5	12.5	13.1	14.3	*Bold figures are*		Avg Ann'l P/E Ratio	*15.0*
1.05	.98	.94	1.06	.99	.84	.86	.85	.72	1.22	.88	.75	.68	.71	.69	.76	*Value Line*		Relative P/E Ratio	*1.00*
6.8%	6.4%	5.9%	5.4%	5.9%	6.2%	5.6%	5.4%	5.5%	5.5%	6.2%	4.9%	4.7%	4.3%	3.9%	3.7%	*estimates*		Avg Ann'l Div'd Yield	*4.0%*

CAPITAL STRUCTURE as of 6/30/06	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		09-11
Total Debt 2087.0 mill. Due in 5 Yrs $530.0 mill.	1220.2	1287.6	1338.6	1068.6	607.4	1049.3	868.9	983.7	1832.0	2718.0	*2770*	*2815*	Revenues ($mill) A	*3010*
LT Debt $1632.0 mill. LT Interest $100.0 mill.	75.6	76.6	80.6	52.1	71.1	82.3	103.0	132.4	153.0	193.0	*205*	*210*	Net Profit ($mill)	*230*
	38.6%	37.9%	32.5%	33.1%	34.3%	40.7%	36.0%	35.9%	37.0%	37.7%	*38.0%*	*38.0%*	Income Tax Rate	*38.0%*
(Total interest coverage: 4.4x)	6.2%	5.9%	6.0%	4.9%	11.7%	7.8%	11.9%	13.5%	8.4%	7.1%	*7.5%*	*7.5%*	Net Profit Margin	*7.7%*
Leases, Uncapitalized Annual rentals $27.0 mill.	46.2%	48.7%	47.5%	45.3%	45.9%	61.3%	58.3%	50.3%	54.0%	51.9%	*51.0%*	*50.0%*	Long-Term Debt Ratio	*48.5%*
	48.9%	45.9%	47.1%	49.2%	48.3%	38.7%	41.7%	49.7%	46.0%	48.1%	*49.0%*	*50.0%*	Common Equity Ratio	*51.5%*
Pension Assets-12/05 $371.0 mill.	1201.3	1356.4	1388.4	1345.8	1286.2	1736.3	1704.3	1901.4	3008.0	3114.0	*3225*	*3310*	Total Capital ($mill)	*3775*
Oblig. $464.0 mill.	1415.4	1496.6	1534.0	1596.9	1637.5	2058.9	2194.2	2352.4	3178.0	3271.0	*3350*	*3450*	Net Plant ($mill)	*3750*
Pfd Stock None	8.0%	7.3%	7.6%	5.7%	7.4%	6.5%	8.1%	8.9%	6.3%	7.9%	*8.0%*	*8.0%*	Return on Total Cap'l	*7.5%*
Common Stock 77,878,889 shs. as of 7/31/06	11.7%	11.0%	11.1%	7.1%	10.2%	12.3%	14.5%	14.0%	11.0%	12.9%	*13.0%*	*12.5%*	Return on Shr. Equity	*12.0%*
	12.1%	11.3%	12.3%	7.9%	11.5%	12.3%	14.5%	14.0%	11.0%	12.9%	*13.0%*	*12.5%*	Return on Com Equity	*12.0%*
MARKET CAP: $2.8 billion (Mid Cap)	3.8%	3.2%	4.4%	NMF	3.2%	4.2%	7.0%	6.6%	5.6%	6.2%	*5.5%*	*5.5%*	Retained to Com Eq	*5.0%*
	71%	74%	64%	101%	72%	65%	52%	53%	49%	52%	*57%*	*58%*	All Div'ds to Net Prof	*59%*

CURRENT POSITION ($MILL.)	2004	2005	6/30/06
Cash Assets	49.0	30.0	37.0
Other	1408.0	2002.0	1471.0
Current Assets	1457.0	2032.0	1508.0
Accts Payable	207.0	264.0	566.0
Debt Due	334.0	522.0	455.0
Other	936.0	1153.0	329.0
Current Liab.	1477.0	1939.0	1350.0
Fix. Chg. Cov.	510%	442%	470%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '03-'05 to '09-'11
Revenues	1.0%	7.0%	*7.5%*
"Cash Flow"	5.0%	7.0%	*5.0%*
Earnings	6.5%	13.5%	*4.5%*
Dividends	1.5%	2.0%	*6.5%*
Book Value	5.5%	8.5%	*6.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2003	352.5	186.6	166.3	278.3	983.7
2004	651.0	294.0	262.0	625.0	1832.0
2005	908.0	430.0	387.0	993.0	2718.0
2006	1047.0	436.0	*405*	*882*	*2770*
2007	*970*	*480*	*465*	*900*	*2815*

Cal-endar	EARNINGS PER SHARE A B Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2003	.98	.29	.27	.54	2.08
2004	1.00	.33	.31	.64	2.28
2005	1.14	.30	.19	.85	2.48
2006	1.41	.25	*.27*	*.72*	*2.65*
2007	*1.30*	*.37*	*.29*	*.74*	*2.70*

Cal-endar	QUARTERLY DIVIDENDS PAID C ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2002	.27	.27	.27	.27	1.08
2003	.27	.28	.28	.28	1.11
2004	.28	.29	.29	.29	1.15
2005	.31	.31	.31	.37	1.30
2006	.37	.37	.37		

BUSINESS: AGL Resources, Inc. is a public utility holding company. Its distribution subsidiaries are Atlanta Gas Light, Chattanooga Gas, and Virginia Natural Gas. The utilities have more than 2.2 million customers in Georgia (primarily Atlanta), Virginia, and in southern Tennessee. Also engaged in nonregulated natural gas marketing and other, allied services. Also wholesales and retails propane. Nonregulated subsidiaries: Georgia Natural Gas Services markets natural gas at retail. Acq. Virginia Natural Gas, 10/00. Sold Utilipro, 3/01. Off./dir. own less than 1.0% of common; Goldman Sachs, 5.5%; JPMorgan, 5.9% (3/06 Proxy). Pres. & CEO: John W. Somerhalder II. Inc.: GA. Addr.: 10 Peachtree Place N.E., Atlanta, GA 30309. Tel.: 404-584-4000. Internet: www.aglresources.com.

AGL Resources utility business performed well despite warmer-than-normal temperatures and conservation by customers. Earnings before interest and taxes increased $7 million versus the year-ago period, driven by a $6 million decrease in operating expenses. This can be attributed to last year's workforce and facilities restructuring programs. Also, operation and maintenance expenses per customer throughout AGL's distribution segment decreased 9% over the first six months of 2006. However, these results were offset by a lackluster performance at SouthStar, which markets natural gas and related services to retail customers on an unregulated basis, where results were also impacted by lower customer usage and higher bad debt expense.

Virginia Natural Gas (VNG) has accepted a modified performance-based rate plan. As part of the deal, VNG will freeze its base rates for five years; construct a pipeline to connect its northern and southern systems, which is expected to cost about $48 million to $60 million; and will be allowed to file for a permanent weather normalization plan. Also, Chattanooga Gas filed for a $5.8 million rate increase with the Tennessee Regulatory Authority to cover rising costs of financing its operations and lower consumption of natural gas. The proposal includes a plan to better align its interest with customers, by adjusting rates annually based on actual consumption versus an assumed level. We think Chattanooga will receive some, if not all, of the rate increase, which should provide a boost to earnings.

AGL's expansion of its Jefferson Island storage facility has hit a road block. In early August, the Louisiana Department of Natural Resources terminated the company's mineral lease due to the timing of leasehold payments and a lack of mining activity on the site for six months. Even so, the company remains committed to resolving these issues and getting the project completed, which will increase working gas capacity, along with revenues.

This neutrally ranked stock has worthwhile total return potential, thanks partly to dividend growth prospects. The good-quality shares are safe and steady, but not overly enticing.

Evan I. Blatter — *September 15, 2006*

(A) Fiscal year ends December 31st. Ended September 30th prior to 2002.
(B) Diluted earnings per share. Excl. nonrecurring gains (losses): '95, d$0.83; '99, $0.39; '00, $0.13; '01, $0.13; '03, d$0.07. Next earnings report due late Oct.
(C) Dividends historically paid early March, June, Sept, and Dec. ■ Div'd reinvest. plan available.
(D) Includes intangibles. In 2005: $422 million, $5.43/share.
(E) In millions, adjusted for stock split.

Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	70
Earnings Predictability	75

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ATMOS ENERGY CORP. NYSE-ATO

RECENT PRICE 28.36 | P/E RATIO 15.6 (Trailing: 18.3 / Median: 16.0) | RELATIVE P/E RATIO 0.92 | DIV'D YLD 4.5% | VALUE LINE

High:	23.0	31.0	30.5	32.3	33.0	26.3	25.8	24.5	25.5	27.6	30.0	29.3
Low:	16.1	20.9	22.1	24.8	19.6	14.3	19.5	17.6	20.8	23.4	25.0	25.5

TIMELINESS 3 Raised 7/28/06

SAFETY 2 Raised 12/16/05

TECHNICAL 2 Raised 8/18/06

BETA .75 (1.00 = Market)

LEGENDS
— 1.25 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
3-for-2 split 5/94
Options: No
Shaded area indicates recession

Target Price Range: 2009 | 2010 | 2011 — 64, 48, 40, 32, 24, 20, 16, 12, 8, 6

2009-11 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	35	(+25%)	10%
Low	30	(+5%)	6%

Insider Decisions

	O	N	D	J	F	M	A	M	J
to Buy	0	1	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	1
to Sell	1	0	1	0	0	0	1	0	1

Institutional Decisions

	4Q2005	1Q2006	2Q2006
to Buy	93	89	102
to Sell	91	84	67
Hld's(000)	43022	46004	46293

Percent shares traded 12 / 8 / 4

% TOT. RETURN 8/06

	THIS STOCK	VL ARITH. INDEX
1 yr.	2.0	7.1
3 yr.	36.1	49.4
5 yr.	70.4	70.4

Atmos Energy's history dates back to 1906 in the Texas Panhandle. Over the years, through various mergers, it became part of Pioneer Corporation, and, in 1981, Pioneer named its gas distribution division Energas. In 1983, Pioneer organized Energas as a separate subsidiary and distributed the outstanding shares of Energas to Pioneer shareholders. Energas changed its name to Atmos in 1988. Atmos acquired Trans Louisiana Gas in 1986, Western Kentucky Gas Utility in 1987, Greeley Gas in 1993, United Cities Gas in 1997, and others.

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	© VALUE LINE PUB., INC.	09-11
30.19	30.59	27.90	22.09	26.61	35.36	22.82	54.39	46.50	61.75	*76.60*	*79.75*	Revenues per sh A	*105.00*
2.80	2.85	3.38	2.62	3.01	3.03	3.39	3.23	2.91	3.90	*4.05*	*4.30*	"Cash Flow" per sh	*5.30*
1.51	1.34	1.84	.81	1.03	1.47	1.45	1.71	1.58	1.72	*1.80*	*1.95*	Earnings per sh A B	*2.50*
.96	1.01	1.06	1.10	1.14	1.16	1.18	1.20	1.22	1.24	*1.26*	*1.28*	Div'ds Decl'd per sh C ■	*1.35*
4.84	4.13	4.44	3.53	2.36	2.77	3.17	3.10	3.03	4.14	*5.00*	*5.90*	Cap'l Spending per sh	*7.30*
10.75	11.04	12.21	12.09	12.28	14.31	13.75	16.66	18.05	19.90	*20.45*	*21.50*	Book Value per sh	*24.10*
16.02	29.64	30.40	31.25	31.95	40.79	41.68	51.48	62.80	80.54	*82.00*	*84.00*	Common Shs Outst'g D	*100.00*
15.1	17.9	15.4	33.0	18.9	15.6	15.2	13.4	15.9	16.1	*Bold figures are*		Avg Ann'l P/E Ratio	*13.0*
.95	1.03	.80	1.88	1.23	.80	.83	.76	.84	.84	*Value Line*		Relative P/E Ratio	*.85*
4.2%	4.2%	3.7%	4.1%	5.9%	5.1%	5.4%	5.2%	4.9%	4.5%	*estimates*		Avg Ann'l Div'd Yield	*4.2%*
483.7	906.8	848.2	690.2	850.2	1442.3	950.8	2799.9	2920.0	4973.3	*6280*	*6700*	Revenues ($mill) A	*10500*
23.9	39.2	55.3	25.0	32.2	56.1	59.7	79.5	86.2	135.8	*150*	*165*	Net Profit ($mill)	*250*
35.7%	37.5%	36.5%	35.0%	36.1%	37.3%	37.1%	37.1%	37.4%	37.7%	*37.5%*	*37.5%*	Income Tax Rate	*38.0%*
5.0%	4.3%	6.5%	3.6%	3.8%	3.9%	6.3%	2.8%	3.0%	2.7%	*2.4%*	*2.5%*	Net Profit Margin	*2.3%*
41.5%	48.1%	51.8%	50.0%	48.1%	54.3%	53.9%	50.2%	43.2%	57.7%	*57.0%*	*57.0%*	Long-Term Debt Ratio	*55.0%*
58.5%	51.9%	48.2%	50.0%	51.9%	45.7%	46.1%	49.8%	56.8%	42.3%	*43.0%*	*43.0%*	Common Equity Ratio	*45.0%*
294.6	630.2	769.7	755.1	755.7	1276.3	1243.7	1721.4	1994.8	3785.5	*3900*	*4200*	Total Capital ($mill)	*5350*
413.6	849.1	917.9	965.8	982.3	1335.4	1300.3	1516.0	1722.5	3374.4	*3675*	*3975*	Net Plant ($mill)	*5000*
10.6%	8.3%	9.0%	5.1%	6.5%	5.9%	6.8%	6.2%	5.8%	5.3%	*5.5%*	*5.5%*	Return on Total Cap'l	*6.5%*
13.9%	12.0%	14.9%	6.6%	8.2%	9.6%	10.4%	9.3%	7.6%	8.5%	*9.0%*	*9.0%*	Return on Shr. Equity	*10.5%*
13.9%	12.0%	14.9%	6.6%	8.2%	9.6%	10.4%	9.3%	7.6%	8.5%	*9.0%*	*9.0%*	Return on Com Equity	*10.5%*
5.1%	3.9%	6.3%	NMF	NMF	2.1%	1.9%	2.8%	1.7%	2.3%	*3.0%*	*3.0%*	Retained to Com Eq	*5.0%*
64%	67%	58%	NMF	112%	79%	82%	70%	77%	73%	*69%*	*65%*	All Div'ds to Net Prof	*54%*

CAPITAL STRUCTURE as of 6/30/06
Total Debt $2481.2 mill. **Due in 5 Yrs** $860.0 mill.
LT Debt $2180.8 mill. **LT Interest** $135.0 mill.
(LT interest earned: 2.7x; total interest coverage: 2.6x)
Leases, Uncapitalized Annual rentals $15.3 mill.
Pfd Stock None
Pension Assets-9/05 $355.9 mill. **Oblig.** $359.9 mill.
Common Stock 81,595,723 shs. as of 7/31/06
MARKET CAP: $2.3 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2004	2005	6/30/06
Cash Assets	201.9	40.1	26.8
Other	475.2	1224.3	1023.4
Current Assets	677.1	1264.4	1050.2
Accts Payable	185.3	461.3	306.8
Debt Due	5.9	148.1	300.4
Other	223.3	503.4	407.6
Current Liab.	414.5	1112.8	1014.8
Fix. Chg. Cov.	384%	395%	400%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '03-'05 to '09-'11
Revenues	6.0%	16.5%	*11.5%*
"Cash Flow"	3.5%	2.0%	*8.0%*
Earnings	4.0%	6.5%	*7.0%*
Dividends	3.0%	2.0%	*2.0%*
Book Value	6.5%	8.5%	*5.0%*

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) A Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2003	680.4	1194.1	488.5	436.9	2799.9
2004	763.6	1117.5	546.1	492.8	2920.0
2005	1371.0	1687.8	909.9	1004.6	4973.3
2006	2283.8	2033.8	863.2	*1099.2*	*6280*
2007	*1675*	*1675*	*1675*	*1675*	*6700*

Fiscal Year Ends	EARNINGS PER SHARE A B E Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2003	.60	1.24	--	d.05	1.71
2004	.57	1.12	.09	d.11	1.58
2005	.79	1.11	.06	d.21	1.72
2006	.88	1.10	d.22	*.04*	*1.80*
2007	*.85*	*1.15*	*.08*	*d.13*	*1.95*

Cal-endar	QUARTERLY DIVIDENDS PAID C ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2002	.295	.295	.295	.30	1.19
2003	.30	.30	.30	.305	1.21
2004	.305	.305	.305	.31	1.23
2005	.31	.31	.31	.315	1.25
2006	.315	.315	.315		

BUSINESS: Atmos Energy Corporation is engaged primarily in the distribution and sale of natural gas to 3.2 million customers via seven regulated natural gas utility operations: Louisiana Division, Mid-States Division, West Texas Division, Mid-Tex Division, Mississippi Division, Colorado-Kansas Division, and Kentucky Division. Combined 2005 gas volumes: 296 MMcf. Breakdown: 55%, residential; 31%, commercial; 10%, industrial; and 4% other. 2005 depreciation rate 3.7%. Has around 4,330 employees. Officers and directors own approximately 2.6% of common stock (12/05 Proxy). Chairman and Chief Executive Officer: Robert W. Best. Incorporated: Texas. Address: P.O. Box 650205, Dallas, Texas 75265. Telephone: 972-934-9227. Internet: www.atmosenergy.com.

It appears that Atmos Energy's earnings per share increased around 5%, to $1.80, in fiscal 2006 (ends September 30th). Within the non-utility division, the marketing segment benefited greatly from strategies to capture favorable arbitrage spreads created by natural gas volatility. But the performance of the utility operation was hampered by warmer temperatures, which especially affected the Mid-Tex and Louisiana units because they did not have a weather-normalized rate structure during that time. (Combined, these units account for over 60% of the customer base.) Also, we estimate that the after-effects of Hurricane Katrina reduced share net by about $0.10.

We believe that the bottom line will advance about 8%, to $1.95 a share, in fiscal 2007, assuming further expansion in operating margins. And it is important to note that weather-normalized rates will be effective for the Mid-Tex operation beginning October 1st. Moreover, a rate design calling for a partial decoupling from the impact of unfavorable temperatures will take effect for the Louisiana unit on December 1st. With these moves, some 90% of the utility's margins are protected by weather-normalization adjustments (versus about 33% previously).

Atmos looks poised to register steady, if measured, bottom-line increases over the 2009-2011 period. With the utility division now serving 3.2 million customers across 12 states, the company is not dependent on the economic climate in any one region of the country. Furthermore, the non-utility segments, particularly pipelines, have decent expansion prospects. In the present corporate configuration, share net ought to grow around 8% annually over the 3- to 5-year horizon.

These good-quality shares offer a healthy dose of dividend income. Prospects for additional increases in the distribution seem reasonable, too, as supported by our favorable 2009-2011 projections for Atmos Energy.

But long-term total-return potential is not spectacular, as capital appreciation possibilities are limited at the current quotation. Also, the equity is ranked to perform only in line with the market in the year ahead.

Frederick L. Harris, III September 15, 2006

(A) Fiscal year ends Sept. 30th. (B) Diluted shrs. Excl. nonrec. items: '97, d53¢; '99, d23¢; '00, 12¢; '03, d17¢. Next egs. rpt. due early Nov. (C) Dividends historically paid in early March, June, Sept., and Dec. ■ Div. reinvestment plan. Direct stock purchase plan avail. (D) In millions, adjusted for stock splits. (E) Qtrs may not add due to change in shrs outstanding. (F) ATO completed United Cities merger 7/97.

Company's Financial Strength	B+
Stock's Price Stability	100
Price Growth Persistence	30
Earnings Predictability	65

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LACLEDE GROUP NYSE-LG

RECENT PRICE 32.13 | P/E RATIO 15.5 (Trailing: 14.8 Median: 15.0) | RELATIVE P/E RATIO 0.91 | DIV'D YLD 4.5% | VALUE LINE

TIMELINESS 4 Raised 9/8/06

SAFETY 2 Raised 6/20/03

TECHNICAL 3 Lowered 9/15/06

BETA .85 (1.00 = Market)

High:	23.1	24.9	28.6	27.9	27.0	24.8	25.5	25.0	30.0	32.5	34.3	35.7
Low:	18.4	20.0	20.3	22.4	20.0	17.5	21.3	19.0	21.8	26.0	26.9	29.1

Target Price Range 2009 | 2010 | 2011

LEGENDS
— 1.00 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 3/94
Options: No
Shaded area indicates recession

2009-11 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	40	(+25%)	10%
Low	30	(-5%)	3%

Insider Decisions

	O	N	D	J	F	M	A	M	J
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	1	0	0	1	0
to Sell	0	0	0	0	1	0	0	1	0

Institutional Decisions

	4Q2005	1Q2006	2Q2006
to Buy	50	67	60
to Sell	37	30	47
Hld's(000)	8521	9470	10115

Percent shares traded 7.5 / 5 / 2.5

% TOT. RETURN 8/06

	THIS STOCK	VL ARITH. INDEX
1 yr.	5.4	7.1
3 yr.	36.5	49.4
5 yr.	74.8	70.4

1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	© VALUE LINE PUB., INC.	09-11
30.21	28.10	26.83	32.33	33.43	24.79	31.03	34.33	31.04	26.04	29.99	53.08	39.84	54.95	59.59	75.43	*93.50*	*98.60*	Revenues per sh	*116.65*
2.13	2.37	2.32	2.81	2.65	2.55	3.29	3.32	3.02	2.56	2.68	3.00	2.56	3.15	2.79	2.98	*3.70*	*3.85*	"Cash Flow" per sh	*4.70*
1.08	1.28	1.17	1.61	1.42	1.27	1.87	1.84	1.58	1.47	1.37	1.61	1.18	1.82	1.82	1.90	*2.15*	*2.15*	Earnings per sh A B	*2.50*
1.18	1.20	1.20	1.22	1.22	1.24	1.26	1.30	1.32	1.34	1.34	1.34	1.34	1.34	1.35	1.37	*1.40*	*1.43*	Div'ds Decl'd per sh C■	*1.50*
1.87	2.46	2.87	2.62	2.50	2.63	2.35	2.44	2.68	2.58	2.77	2.51	2.80	2.67	2.45	2.84	*3.15*	*3.40*	Cap'l Spending per sh	*4.40*
11.75	11.83	11.79	12.19	12.44	13.05	13.72	14.26	14.57	14.96	14.99	15.26	15.07	15.65	16.96	17.31	*19.70*	*20.65*	Book Value per sh D	*26.00*
15.59	15.59	15.59	15.59	15.67	17.42	17.56	17.56	17.63	18.88	18.88	18.88	18.96	19.11	20.98	21.17	*21.50*	*21.50*	Common Shs Outst'g E	*24.00*
14.6	12.5	15.8	13.5	16.4	15.5	11.9	12.5	15.5	15.8	14.9	14.5	20.0	13.6	15.7	16.2	*Bold figures are*		Avg Ann'l P/E Ratio	*14.0*
1.08	.80	.96	.80	1.08	1.04	.75	.72	.81	.90	.97	.74	1.09	.78	.83	.86	*Value Line*		Relative P/E Ratio	*.95*
7.5%	7.5%	6.5%	5.6%	5.3%	6.3%	5.6%	5.6%	5.4%	5.8%	6.6%	5.7%	5.7%	5.4%	4.7%	4.4%	*estimates*		Avg Ann'l Div'd Yield	*4.3%*
						544.8	602.8	547.2	491.6	566.1	1002.1	755.2	1050.3	1250.3	1597.0	*2010*	*2120*	Revenues ($mill) A	*2800*
						32.8	32.5	27.9	26.9	26.0	30.5	22.4	34.6	36.1	40.1	*46.0*	*46.0*	Net Profit ($mill)	*60.0*
						35.9%	36.1%	35.6%	35.5%	35.2%	32.7%	35.4%	35.0%	34.8%	34.1%	*34.0%*	*34.0%*	Income Tax Rate	*35.0%*
						6.0%	5.4%	5.1%	5.5%	4.6%	3.0%	3.0%	3.3%	2.9%	2.5%	*2.3%*	*2.2%*	Net Profit Margin	*2.1%*
						42.5%	38.0%	40.9%	41.8%	45.2%	49.5%	47.5%	50.4%	51.6%	48.1%	*49.0%*	*49.0%*	Long-Term Debt Ratio	*48.0%*
						57.1%	61.6%	58.6%	57.8%	54.5%	50.2%	52.3%	49.4%	48.3%	51.8%	*51.0%*	*51.0%*	Common Equity Ratio	*52.0%*
						422.2	406.8	438.0	488.6	519.2	574.1	546.6	605.0	737.4	707.9	*830*	*870*	Total Capital ($mill)	*1200*
						452.2	467.6	490.6	519.4	575.4	602.5	594.4	621.2	646.9	679.5	*775*	*815*	Net Plant ($mill)	*1050*
						9.4%	9.7%	8.1%	7.1%	6.7%	6.9%	6.0%	7.4%	6.6%	7.7%	*7.0%*	*7.0%*	Return on Total Cap'l	*6.5%*
						13.5%	12.9%	10.8%	9.5%	9.1%	10.5%	7.8%	11.5%	10.1%	10.9%	*11.0%*	*10.5%*	Return on Shr. Equity	*9.5%*
						13.6%	12.9%	10.8%	9.5%	9.1%	10.5%	7.8%	11.6%	10.1%	10.9%	*11.0%*	*10.5%*	Return on Com Equity	*9.5%*
						4.5%	3.9%	1.8%	1.0%	.2%	1.8%	NMF	3.1%	2.7%	3.1%	*4.0%*	*3.5%*	Retained to Com Eq	*4.0%*
						67%	70%	83%	89%	98%	83%	113%	74%	73%	72%	*65%*	*67%*	All Div'ds to Net Prof	*60%*

CAPITAL STRUCTURE as of 6/30/06
Total Debt $518.8 mill. **Due in 5 Yrs** $175.0 mill.
LT Debt $395.4 mill. **LT Interest** $25.0 mill.
(Total interest coverage: 3.0x)

Leases, Uncapitalized Annual rentals $1.7 mill.
Pension Assets-9/05 $272.8 mill. **Oblig.** $327.2 mill.
Pfd Stock $.8 mill. **Pfd Div'd** $.05 mill.
Common Stock 21,357,009 shs. as of 7/28/06

MARKET CAP: $675 million (Small Cap)

CURRENT POSITION ($MILL.)	2004	2005	6/30/06
Cash Assets	13.9	6.0	31.9
Other	323.7	418.1	319.1
Current Assets	337.6	424.1	351.0
Accts Payable	68.4	138.4	118.2
Debt Due	96.5	110.7	123.4
Other	97.7	116.5	181.1
Current Liab.	262.6	365.6	304.5
Fix. Chg. Cov.	279%	293%	290%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '03-'05 to '09-'11
Revenues	7.5%	17.0%	10.5%
"Cash Flow"	1.0%	1.5%	8.0%
Earnings	2.5%	4.5%	5.0%
Dividends	1.0%	.5%	2.0%
Book Value	3.0%	2.5%	7.5%

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) A Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2003	260.1	422.2	186.6	161.4	1050.3
2004	332.6	475.0	245.1	197.6	1250.3
2005	442.5	576.5	311.3	266.7	1597.0
2006	689.2	708.8	330.5	*281.5*	*2010*
2007	*635*	*655*	*440*	*390*	*2120*

Fiscal Year Ends	EARNINGS PER SHARE A B F Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2003	.80	1.14	.11	d.21	1.82
2004	.87	1.12	.19	d.28	1.82
2005	.79	1.06	.29	d.24	1.90
2006	1.23	1.05	.13	*d.26*	*2.15*
2007	*1.15*	*1.05*	*.25*	*d.30*	*2.15*

Cal-endar	QUARTERLY DIVIDENDS PAID C ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2002	.335	.335	.335	.335	1.34
2003	.335	.335	.335	.335	1.34
2004	.335	.34	.34	.34	1.36
2005	.34	.345	.345	.345	1.38
2006	.345	.355	.355	.355	

BUSINESS: Laclede Group, Inc., is a holding company for Laclede Gas, which distributes natural gas in eastern Missouri, including the city of St. Louis, St. Louis County, and parts of 8 other counties. Has more than 630,000 customers. Purchased SM&P for $43 million (1/02). Therms sold and transported in fiscal 2005: 1.12 mill. Revenue mix for regulated operations: residential, 60%; commercial and industrial, 23%; transportation, 2%; other, 15%. Has around 3,815 employees. Officers and directors own approximately 6.0% of common shares (1/06 Proxy). Chairman, Chief Executive Officer, and President: Douglas H. Yaeger. Incorporated: Missouri. Address: 720 Olive Street, St. Louis, Missouri 63101. Telephone: 314-342-0500. Internet: www.lacledegas.com.

Laclede Group is on track to register healthy results in fiscal 2006 (ends September 30th). Laclede Energy Resources, the non-utility gas marketing segment, is still benefiting from supply/demand imbalances resulting from last year's Gulf Coast hurricanes, plus a surge in volumes (reflecting higher interstate pipeline wholesale transactions). Furthermore, SM&P Utility Resources, the unregulated unit specializing in locating and marking services for underground facilities, is being aided by new business signups in existing markets. And we note that this subsidiary recently bought Reliant Services, which provides similar services. Given that both businesses have customers in the same geographic areas, synergies ought to generate decent cost savings going forward.

But the core natural gas unit has underperformed of late. This can be attributed partly to higher operation and maintenance expenses, as well as an increased provision for uncollectible accounts. A decline in volumes within the service territory has further eroded earnings. On the bright side, there have been benefits from a general rate hike effective since last October, and income from entities located outside the system has been rising.

On a consolidated basis, share net ought to grow about 13%, to $2.15, in fiscal 2006. Laclede's bottom line may flatten out next year because of the difficult comparison.

We believe that unexciting results are in store for the company over the 2009-2011 timeframe. The market in which the natural gas division operates has sluggish customer growth because it is in a mature stage. Moreover, it appears that major acquisitions are not likely to take place anytime soon. Consequently, annual share-net gains may only be in the mid-single-digit range, with some volatility, over the 3- to 5-year horizon.

The stock's good yield aside, total-return potential is not appealing. That is because these shares are already trading within our 2009-2011 Target Price Range, and we are assuming that future dividend increases will be moderate. Also, the Timeliness rank is 4 (Below Average).

Frederick L. Harris, III September 15, 2006

(A) Fiscal year ends Sept. 30th.
(B) Based on average shares outstanding thru. '97, then diluted. Excludes nonrecurring loss: Q2 '06, 7¢. Next earnings report due late Oct.
(C) Dividends historically paid in early January, April, July, and October. ■ Dividend reinvestment plan available.
(D) Incl. deferred charges. In '05: $203.8 mill., $9.63/sh.
(E) In millions. Adjusted for stock split.
(F) Qtly. egs. may not sum due to change in shares outstanding.

Company's Financial Strength	B+
Stock's Price Stability	95
Price Growth Persistence	55
Earnings Predictability	65

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NEW JERSEY RES. NYSE-NJR

RECENT PRICE 49.55 | P/E RATIO 20.6 (Trailing: 16.2 / Median: 15.0) | RELATIVE P/E RATIO 1.21 | DIV'D YLD 2.9% | VALUE LINE

TIMELINESS 4 Raised 2/17/06
SAFETY 1 Raised 9/15/06
TECHNICAL 2 Raised 8/25/06
BETA .80 (1.00 = Market)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
High:	20.3	19.9	28.0	26.8	27.4	29.8	32.5	33.6	39.5	44.6	49.3	51.4
Low:	14.3	17.8	18.8	21.0	22.4	24.1	24.8	24.3	30.0	36.5	40.7	41.5

LEGENDS
— 1.18 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
3-for-2 split 3/02
Options: No
Shaded area indicates recession

Target Price Range 2009 | 2010 | 2011

2009-11 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	60	(+20%)	8%
Low	50	(Nil)	3%

Insider Decisions

	O	N	D	J	F	M	A	M	J
to Buy	0	0	0	0	0	0	0	0	0
Options	1	4	0	0	5	0	0	2	0
to Sell	1	4	0	0	4	0	0	2	0

Institutional Decisions

	4Q2005	1Q2006	2Q2006
to Buy	64	71	73
to Sell	60	52	60
Hld's(000)	13455	14778	16255

Percent shares traded 7.5 / 5 / 2.5

% TOT. RETURN 8/06

	THIS STOCK	VL ARITH. INDEX
1 yr.	9.2	7.1
3 yr.	51.6	49.4
5 yr.	95.0	70.4

1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	© VALUE LINE PUB., INC.	09-11
16.01	15.99	16.88	18.02	19.22	17.03	20.22	25.97	26.69	33.98	44.13	76.82	66.17	93.43	91.33	114.29	*117.45*	*120.60*	Revenues per sh A	*129.80*
1.54	1.58	1.95	2.14	2.31	2.13	2.22	2.45	2.60	2.79	2.99	3.18	3.21	3.58	3.75	3.92	*4.00*	*4.20*	"Cash Flow" per sh	*4.70*
.65	.55	1.09	1.15	1.26	1.29	1.37	1.48	1.55	1.66	1.79	1.95	2.09	2.38	2.55	2.65	*2.80*	*2.90*	Earnings per sh B	*3.30*
.96	1.00	1.01	1.01	1.01	1.01	1.03	1.07	1.09	1.12	1.15	1.17	1.20	1.24	1.30	1.36	*1.45*	*1.50*	Div'ds Decl'd per sh C■	*1.70*
4.37	2.91	1.99	2.31	2.10	1.77	1.78	1.72	1.60	1.81	1.85	1.66	1.53	1.71	2.17	1.92	*1.80*	*1.95*	Cap'l Spending per sh	*2.10*
8.85	8.57	9.44	9.81	9.64	9.70	10.10	10.38	10.88	11.35	12.43	13.20	13.06	15.38	16.87	15.90	*17.45*	*18.80*	Book Value per sh	*23.15*
20.28	20.95	24.43	25.23	25.95	26.69	27.13	26.82	26.72	26.61	26.39	26.66	27.67	27.23	27.74	27.55	*28.10*	*28.20*	Common Shs Outst'g D	*28.50*
24.0	22.3	12.4	15.1	13.0	11.7	13.6	13.5	15.3	15.2	14.7	14.2	14.7	14.0	15.3	16.8	*Bold figures are*		Avg Ann'l P/E Ratio	*17.0*
1.78	1.42	.75	.89	.85	.78	.85	.78	.80	.87	.96	.73	.80	.80	.81	.90	*Value Line*		Relative P/E Ratio	*1.15*
6.2%	8.1%	7.5%	5.8%	6.2%	6.7%	5.6%	5.3%	4.6%	4.5%	4.4%	4.2%	3.9%	3.7%	3.3%	3.1%	*estimates*		Avg Ann'l Div'd Yield	*3.0%*
						548.5	696.5	710.3	904.3	1164.5	2048.4	1830.8	2544.4	2533.6	3148.3	*3300*	*3400*	Revenues ($mill) A	*3700*
						38.7	41.5	43.3	44.9	47.9	52.3	56.8	65.4	71.6	74.4	*80.0*	*82.0*	Net Profit ($mill)	*95.0*
						32.6%	33.3%	30.4%	36.2%	37.8%	38.0%	38.7%	39.4%	39.1%	39.1%	*39.0%*	*39.0%*	Income Tax Rate	*40.0%*
						7.1%	6.0%	6.1%	5.0%	4.1%	2.6%	3.1%	2.6%	2.8%	2.4%	*2.4%*	*2.4%*	Net Profit Margin	*2.5%*
						50.7%	49.3%	51.2%	48.7%	47.0%	50.1%	50.6%	38.1%	40.3%	42.0%	*42.0%*	*41.0%*	Long-Term Debt Ratio	*37.0%*
						45.8%	47.1%	45.6%	51.2%	52.9%	49.9%	49.4%	61.9%	59.7%	58.0%	*58.0%*	*59.0%*	Common Equity Ratio	*63.0%*
						598.2	590.6	638.2	590.4	620.1	706.2	732.4	676.8	783.8	755.3	*845*	*890*	Total Capital ($mill)	*1055*
						655.2	659.4	680.0	705.4	730.6	743.9	756.4	852.6	880.4	905.1	*935*	*970*	Net Plant ($mill)	*1120*
						8.1%	8.6%	8.1%	9.0%	9.0%	8.5%	8.7%	10.7%	10.1%	11.2%	*10.5%*	*10.5%*	Return on Total Cap'l	*10.5%*
						13.1%	13.9%	13.9%	14.8%	14.6%	14.8%	15.7%	15.6%	15.3%	17.0%	*16.0%*	*15.5%*	Return on Shr. Equity	*14.5%*
						13.5%	14.3%	14.4%	14.8%	14.6%	14.9%	15.7%	15.6%	15.3%	17.0%	*16.0%*	*15.5%*	Return on Com Equity	*14.5%*
						3.4%	4.0%	4.4%	5.0%	5.4%	6.1%	6.9%	7.7%	7.8%	8.5%	*8.0%*	*7.5%*	Retained to Com Eq	*7.0%*
						76%	73%	71%	67%	63%	59%	56%	51%	49%	50%	*52%*	*52%*	All Div'ds to Net Prof	*52%*

CAPITAL STRUCTURE as of 6/30/06
Total Debt $490.8 mill. **Due in 5 Yrs** $250.0 mill.
LT Debt $333.8 mill. **LT Interest** $22.0 mill.
Incl. $6.9 mill. capitalized leases.
(LT interest earned: 5.5x; total interest coverage: 4.8x)
Pension Assets-9/05 $82.6 mill. **Oblig.** $99.9 mill.

Pfd Stock None

Common Stock 28,080,314 shs. as of 8/8/06
MARKET CAP: $1.4 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2004	2005	6/30/06
Cash Assets	5.0	25.0	4.7
Other	681.0	927.8	808.7
Current Assets	686.0	952.8	813.4
Accts Payable	42.9	54.7	38.0
Debt Due	287.4	177.4	157.0
Other	357.4	744.2	510.4
Current Liab.	687.7	976.3	705.4
Fix. Chg. Cov.	826%	660%	700%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '03-'05 to '09-'11
Revenues	18.5%	23.5%	4.5%
"Cash Flow"	5.5%	6.0%	4.0%
Earnings	7.5%	8.5%	4.5%
Dividends	2.5%	3.0%	4.5%
Book Value	5.0%	7.0%	6.5%

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) A Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2003	668.9	1152.7	369.7	353.1	2544.4
2004	643.0	1037.7	438.5	414.4	2533.6
2005	854.0	1065.1	544.3	684.9	3148.3
2006	1164.6	1064.4	536.1	*534.9*	*3300*
2007	*1085*	*1150*	*610*	*555*	*3400*

Fiscal Year Ends	EARNINGS PER SHARE A B Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2003	.85	1.50	.16	d.13	2.38
2004	.87	1.82	.06	d.20	2.55
2005	.91	1.84	.07	d.17	2.65
2006	1.23	2.14	d.14	*d.43*	*2.80*
2007	*1.13*	*1.84*	*.10*	*d.17*	*2.90*

Cal-endar	QUARTERLY DIVIDENDS PAID C■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2002	.30	.30	.30	.30	1.20
2003	.31	.31	.31	.31	1.24
2004	.325	.325	.325	.325	1.30
2005	.34	.34	.34	.34	1.36
2006	.36	.36	.36		

BUSINESS: New Jersey Resources Corp. is the holding company for New Jersey Natural Gas Co., a natural gas utility (about 463,000 customers at 9/30/05) in Monmouth, Ocean, and parts of other N.J. counties. Fiscal 2005 volume: 124.7 bill. cu. ft. (50% firm, 8% interruptible industrial and electric utility, 42% off-system and capacity release). New Jersey Natural Energy subsid. provides unregulated retail and wholesale natural gas and related energy services to customers in 17 states. 2005 deprec. rate: 2.8%. Est'd plant age: 8 years. Has 551 utility employees, 16,300 stckhldrs. Off. & dir. own about 3% of common stock (12/05 Proxy). Chairman and CEO: Laurence M. Downes. Inc.: N.J. Address: 1415 Wyckoff Road, Wall, NJ 07719. Tel.: 732-938-1000. Internet: www.njliving.com.

New Jersey Resources results over the first nine months of fiscal 2006 (year ends September 30th) have been solid. Earnings over this timeframe increased about 14.5%, to $3.23 a share, with most of the gains being driven by an improved performance at the company's energy services subsidiary. In fact, the segment posted an earnings advance of about 90% this year due to growth in its portfolio of storage and transportation contracts. Since the unit covers many markets in the eastern half of the United States *and Canada, it is able to capture additional* value when prices fluctuate between regions. All told, the business now represents over 20% of corporate earnings.

The third quarter was a weak one at the company's main subsidiary, New Jersey Natural Gas (NJNG). It posted earnings of $1.7 million, well below the $3.9 million in the year-earlier period. The decrease was primarily the result of conservation by customers. The utility currently has a weather normalization plan in place to protect against temperatures that are warmer than normal, though, it is unable to protect against lower usage. Therefore, in December, NJNG proposed a plan with the New Jersey Board of Public Utilities to implement a conservation usage adjustment (CUA) plan to replace the normalization policy, which would provide protection against both temperature and usage changes. Management remains optimistic that the program will be approved and be in place by next winter's heating season. However, should regulatory approval not be granted, the company is exploring alternatives that includes filing for a rate increase. Meanwhile, the utility added about 7,870 new customers through the third quarter, and will likely grow at a rate above the industry average for the next few years thanks to the strong demographics of the region NJNG serves. About a third of new customers are conversions from other fuel sources.

Though untimely, this stock offers decent total return potential. This is largely due to expanding profits from its nonutility operations. Other pluses include the likelihood of a more consistent earnings stream through the CUA proposal, and steady dividend increases.

Evan I. Blatter *September 15, 2006*

(A) Fiscal year ends Sept. 30th.
(B) Diluted earnings. Next earnings report due late Oct.
(C) Dividends historically paid in early January, April, July, and October. ■ Dividend reinvestment plan available.
(D) In millions, adjusted for split.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	85
Earnings Predictability	100

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NICOR, INC. NYSE-GAS

RECENT PRICE **43.05** | P/E RATIO **17.2** (Trailing: 18.6, Median: 14.0) | RELATIVE P/E RATIO **1.01** | DIV'D YLD **4.3%** | VALUE LINE

TIMELINESS **3** Raised 7/7/06
SAFETY **3** Lowered 6/17/05
TECHNICAL **3** Raised 5/5/06
BETA 1.20 (1.00 = Market)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
High:	28.5	37.1	42.9	44.4	42.9	43.9	42.4	49.0	39.3	39.7	43.0	44.4
Low:	21.8	25.4	30.0	37.1	31.2	29.4	34.0	17.3	23.7	32.0	35.5	38.7

LEGENDS
— 1.30 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 4/93
Options: Yes
Shaded area indicates recession

Target Price Range 2009 | 2010 | 2011
120, 100, 80, 64, 48, 32, 24, 20, 16, 12, 8

2009-11 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	55	(+30%)	10%
Low	35	(-20%)	Nil

Insider Decisions

	O	N	D	J	F	M	A	M	J
to Buy	1	0	0	1	0	0	1	0	0
Options	0	0	0	0	0	2	0	0	0
to Sell	0	0	0	0	0	2	0	0	0

Institutional Decisions

	4Q2005	1Q2006	2Q2006
to Buy	117	112	98
to Sell	97	94	110
Hld's(000)	30966	32581	32450

Percent shares traded 18, 12, 6

% TOT. RETURN 8/06

	THIS STOCK	VL ARITH. INDEX
1 yr.	10.4	7.1
3 yr.	49.1	49.4
5 yr.	44.5	70.4

1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	© VALUE LINE PUB., INC.	09-11
26.52	26.46	28.90	31.02	31.23	29.42	37.39	41.33	30.84	34.45	50.52	57.30	43.11	60.46	62.12	76.00	*73.35*	*72.30*	Revenues per sh	*71.25*
3.86	3.92	4.14	3.80	4.11	4.19	4.97	5.29	5.21	5.59	6.16	6.41	6.03	5.37	6.00	6.19	*6.45*	*6.50*	"Cash Flow" per sh	*6.80*
1.93	1.86	1.92	1.97	2.07	1.96	2.42	2.55	2.31	2.57	2.94	3.01	2.88	2.11	2.22	2.27	*2.45*	*2.50*	Earnings per sh A	*2.80*
1.06	1.12	1.18	1.22	1.25	1.28	1.32	1.40	1.48	1.54	1.66	1.76	1.84	1.86	1.86	1.86	*1.86*	*1.92*	Div'ds Decl'd per sh B ■	*2.02*
3.00	3.65	3.12	2.62	3.34	3.12	2.42	2.34	2.87	3.28	3.48	4.18	4.37	4.12	4.32	4.57	*4.50*	*4.50*	Cap'l Spending per sh	*4.50*
11.67	12.28	12.76	13.05	13.26	13.67	14.74	15.43	15.97	16.80	15.56	16.39	16.55	17.13	16.99	18.36	*18.90*	*19.40*	Book Value per sh	*21.60*
57.93	57.30	55.77	53.96	51.54	50.30	49.49	48.22	47.51	46.89	45.49	44.40	44.01	44.04	44.10	44.18	*44.50*	*44.60*	Common Shs Outst'g C	*44.90*
10.7	11.5	11.6	14.1	12.5	13.1	12.5	14.2	17.6	14.6	11.9	12.8	13.1	15.8	15.9	17.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*16.0*
.79	.73	.70	.83	.82	.88	.78	.82	.92	.83	.77	.66	.72	.90	.84	.91			Relative P/E Ratio	*1.05*
5.1%	5.2%	5.3%	4.4%	4.8%	5.0%	4.4%	3.9%	3.6%	4.1%	4.7%	4.6%	4.9%	5.6%	5.3%	4.7%			Avg Ann'l Div'd Yield	*4.5%*
						1850.7	1992.6	1465.1	1615.2	2298.1	2544.1	1897.4	2662.7	2739.7	3357.8	*3265*	*3225*	Revenues ($mill)	*3200*
						121.2	124.3	111.1	121.9	136.4	136.3	128.0	93.1	98.1	101.1	*110*	*110*	Net Profit ($mill)	*125*
						35.8%	35.0%	34.4%	34.7%	34.8%	33.5%	31.0%	35.2%	31.8%	28.3%	*27.0%*	*30.0%*	Income Tax Rate	*32.0%*
						6.5%	6.2%	7.6%	7.5%	5.9%	5.4%	6.7%	3.5%	3.6%	3.0%	*3.4%*	*3.4%*	Net Profit Margin	*3.9%*
						41.3%	42.3%	42.1%	35.5%	32.7%	37.8%	35.1%	39.6%	39.8%	37.4%	*36.0%*	*35.0%*	Long-Term Debt Ratio	*32.0%*
						58.1%	57.2%	57.4%	64.0%	66.7%	61.7%	64.5%	60.3%	60.1%	62.5%	*64.0%*	*65.0%*	Common Equity Ratio	*68.0%*
						1255.1	1300.6	1322.6	1230.1	1061.2	1180.1	1128.9	1251.5	1246.0	1297.7	*1310*	*1335*	Total Capital ($mill)	*1430*
						1771.9	1735.8	1731.8	1735.2	1729.6	1768.6	1796.8	2484.2	2549.8	2659.1	*2750*	*2850*	Net Plant ($mill)	*3150*
						11.1%	11.1%	9.9%	10.9%	13.7%	12.3%	12.2%	8.3%	8.8%	9.4%	*10.0%*	*9.5%*	Return on Total Cap'l	*10.0%*
						16.4%	16.6%	14.5%	15.4%	19.1%	18.6%	17.5%	12.3%	13.1%	12.5%	*13.0%*	*12.5%*	Return on Shr. Equity	*13.0%*
						16.6%	16.7%	14.6%	15.4%	19.2%	18.7%	17.5%	12.3%	13.1%	12.5%	*13.0%*	*12.5%*	Return on Com Equity	*13.0%*
						7.6%	7.6%	5.4%	6.2%	8.5%	7.9%	6.5%	1.5%	2.1%	2.3%	*3.0%*	*3.0%*	Retained to Com Eq	*3.5%*
						54%	55%	63%	60%	56%	58%	63%	88%	84%	81%	*75%*	*77%*	All Div'ds to Net Prof	*73%*

CAPITAL STRUCTURE as of 6/30/06
Total Debt $520.2 mill. **Due in 5 Yrs** $215.0 mill.
LT Debt $470.2 mill. **LT Interest** $20.0 mill.
(Total interest coverage: 4.0x)

Pension Assets-12/05 $424.0 mill. **Oblig.** $284.4 mill.

Pfd Stock $.6 mill. **Pfd Div'd** $.03 mill.
(11,681 shares of 4.48% mandatorily redeemable preferred stock)
Common Stock 44,536,603 shares as of 4/28/06
MARKET CAP: $1.9 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2004	2005	6/30/06
Cash Assets	83.2	126.9	226.6
Other	937.7	1218.8	477.4
Current Assets	1020.9	1345.7	704.0
Accts Payable	502.9	658.2	433.9
Debt Due	490.2	636.0	50.0
Other	178.3	328.7	511.4
Current Liab.	1171.4	1622.9	995.3
Fix. Chg. Cov.	428%	367%	NMF

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '03-'05 to '09-'11
Revenues	8.0%	11.5%	*1.0%*
"Cash Flow"	4.0%	0.5%	*2.5%*
Earnings	1.0%	-3.5%	*4.0%*
Dividends	4.0%	3.5%	*1.5%*
Book Value	3.0%	1.5%	*3.0%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2003	1171.3	452.8	294.8	743.8	2662.7
2004	1115.7	429.5	299.9	894.6	2739.7
2005	1179.9	484.4	336.0	1357.5	3357.8
2006	1319.4	451.3	*320*	*1174.3*	*3265*
2007	*1250*	*500*	*350*	*1125*	*3225*

Calendar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2003	1.11	.21	.01	.78	2.11
2004	.96	.44	d.26	1.08	2.22
2005	.98	.35	d.06	1.02	2.27
2006	.94	.41	*d.05*	*1.15*	*2.45*
2007	*1.00*	*.40*	*d.05*	*1.15*	*2.50*

Calendar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2002	.46	.46	.46	.46	1.84
2003	.46	.465	.465	.465	1.86
2004	.465	.465	.465	.465	1.86
2005	.465	.465	.465	.465	1.86
2006	.465	.465	.465		

BUSINESS: Nicor Inc. is a holding company with gas distribution as its primary business. Serves over 2.1 million customers in northern and western Illinois. 2005 gas delivered: 470.6 Bcf, incl. 219.4 Bcf from transportation. 2005 gas sales (251.2 bcf): residential, 80%; commercial, 18%; industrial, 3%. Principal supplying pipelines: Natural Gas Pipeline, Horizon Pipeline, and TGPC. Current operations include Tropical Shipping subsidiary and several energy related ventures. Divested inland barging, 7/86; contract drilling, 9/86; oil and gas E&P, 6/93. Has about 3,700 employee. Off./dir. own about 2.8% of common stock. (3/06 proxy). Chairman and CEO: Russ Strobel. Inc.: IL. Address: 1844 Ferry Road, Naperville, IL 60563. Telephone: 630-305-9500. Internet: www.nicor.com.

Nicor's core gas distribution segment has posted mixed results. In the first six months of the year, this unit posted a modest decline in operating profits from a year ago. Excluding the cost recovery of $3.8 million related to a mercury repair and inspection program, operating earnings declined by 1%, to $70.8 million, in the period. An increase in base rates, approved by the Illinois Commerce Commission last fall, helped to boost revenues, but was partially offset by unseasonably warm weather, which reduced the demand for gas deliveries. This decrease in demand lowered net profits by roughly $7.5 million compared to management's forecast. In light of the weather-related losses, the gas distribution segment will probably weigh on the bottom line in the full year. Even so, this is considered a temporary issue, and an eventual return to normal weather conditions should benefit earnings. Too, operating and maintenance expenses have *been running below management's* expectations, with room for further cost reductions, barring an unforeseen spike in natural gas prices.

The company's other business segments should bolster the bottom line. Nicor's Tropical Shipping unit is generating higher revenues, due to an increase in rates. But some of those gains are likely to be mitigated, in part, by incremental payroll and transportation costs. Separately, the energy ventures segment should post better results in the second half of this year, as deferred revenue, related to its utility bill management products, are recognized.

Nicor may be able to raise its dividend following a recent legal settlement. In July, the company reached a settlement with the SEC regarding the investigation over its accounting for natural gas costs between 2000 and 2002. Under the terms of the settlement, Nicor will be subject to a $10 million fine, without admitting or denying any wrongdoing. With the legal issues in the rearview mirror, there ought to be a greater amount of cash available to shareholders. As of June 30th, there was nearly $227 million in cash on the balance sheet.

These shares may interest income-oriented accounts.

Charles W. Noh *September 15, 2006*

(A) Based on primary earnings thru. '96, then diluted. Excl. nonrecurring gains/(loss): '89, 7¢; '97, 6¢; '98, 11¢; '99, 5¢; '00, ($1.96); '01, 16¢; '03, (27¢); '04, (52¢); '05, 80¢; '06, (17¢). Excl. items from discontinued ops.: '93, 4¢; '96, 30¢. Quarterly earnings may not sum to total due to rounding. Next earnings report due early Nov. (B) Dividends historically paid early February, May, August, November. ■ Dividend reinvestment plan available. (C) In millions, adjusted for stock split.

Company's Financial Strength	A
Stock's Price Stability	55
Price Growth Persistence	35
Earnings Predictability	80

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N.W. NAT'L GAS NYSE-NWN

RECENT PRICE **38.19** | P/E RATIO **16.7** (Trailing: 17.6; Median: 15.0) | RELATIVE P/E RATIO **0.98** | DIV'D YLD **3.6%** | VALUE LINE

TIMELINESS **3** Raised 8/25/06
SAFETY **1** Raised 3/18/05
TECHNICAL **2** Raised 9/15/06
BETA .75 (1.00 = Market)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
High:	22.8	25.9	31.4	30.8	27.9	27.5	26.8	30.7	31.3	34.1	39.6	38.8
Low:	18.3	20.8	23.0	24.3	19.5	17.8	21.7	23.5	24.0	27.5	32.4	32.8

Target Price Range: 2009 | 2010 | 2011

LEGENDS
— 1.10 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
3-for-2 split 9/96
Options: Yes
Shaded area indicates recession

2009-11 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	45	(+20%)	8%
Low	40	(+5%)	5%

Insider Decisions

	O	N	D	J	F	M	A	M	J
to Buy	0	0	0	0	1	1	0	0	0
Options	0	0	1	0	0	0	0	0	0
to Sell	0	0	1	0	0	0	0	1	0

Institutional Decisions

	4Q2005	1Q2006	2Q2006
to Buy	59	62	77
to Sell	54	59	59
Hld's(000)	12922	13095	14328

Percent shares traded 9 6 3

% TOT. RETURN 8/06

	THIS STOCK	VL ARITH. INDEX
1 yr.	8.1	7.1
3 yr.	51.4	49.4
5 yr.	87.4	70.4

1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	© VALUE LINE PUB., INC.	09-11
17.02	16.74	14.10	18.15	18.30	16.02	16.86	15.82	16.77	18.17	21.09	25.78	25.07	23.57	25.69	33.01	*39.65*	*42.25*	Revenues per sh	*51.80*
3.22	2.57	3.25	3.74	3.50	3.41	3.86	3.72	3.24	3.72	3.68	3.86	3.65	3.85	3.92	4.34	*4.60*	*4.75*	"Cash Flow" per sh	*5.10*
1.62	.67	.74	1.74	1.63	1.61	1.97	1.76	1.02	1.70	1.79	1.88	1.62	1.76	1.86	2.11	*2.22*	*2.40*	Earnings per sh A	*2.85*
1.10	1.13	1.15	1.17	1.17	1.18	1.20	1.21	1.22	1.23	1.24	1.25	1.26	1.27	1.30	1.32	*1.38*	*1.42*	Div'ds Decl'd per sh B■	*1.70*
3.85	3.58	3.73	3.61	4.23	3.02	3.70	5.07	4.02	4.78	3.46	3.23	3.11	4.90	5.52	3.48	*3.70*	*3.60*	Cap'l Spending per sh	*3.60*
12.61	12.23	12.41	13.08	13.63	14.55	15.37	16.02	16.59	17.12	17.93	18.56	18.88	19.52	20.64	21.28	*22.10*	*22.95*	Book Value per sh	*25.55*
17.41	17.68	19.46	19.77	20.13	22.24	22.56	22.86	24.85	25.09	25.23	25.23	25.59	25.94	27.55	27.58	*27.75*	*27.80*	Common Shs Outst'g C	*28.00*
10.2	28.1	27.0	12.9	13.0	12.9	11.7	14.4	26.7	14.5	12.4	12.9	17.2	15.8	16.7	17.0	*Bold figures are*		Avg Ann'l P/E Ratio	*15.0*
.76	1.79	1.64	.76	.85	.86	.73	.83	1.39	.83	.81	.66	.94	.90	.88	.91	*Value Line*		Relative P/E Ratio	*.95*
6.7%	5.9%	5.7%	5.2%	5.5%	5.7%	5.2%	4.8%	4.5%	5.0%	5.6%	5.1%	4.5%	4.6%	4.2%	3.7%	*estimates*		Avg Ann'l Div'd Yield	*4.3%*
						380.3	361.8	416.7	455.8	532.1	650.3	641.4	611.3	707.6	910.5	*1025*	*1050*	Revenues ($mill)	*1450*
						46.8	43.1	27.3	44.9	47.8	50.2	43.8	46.0	50.6	58.1	*62.0*	*66.5*	Net Profit ($mill)	*80.0*
						36.9%	32.9%	31.0%	35.4%	35.9%	35.4%	34.9%	33.7%	34.4%	36.0%	*36.0%*	*36.0%*	Income Tax Rate	*36.0%*
						12.3%	11.9%	6.6%	9.9%	9.0%	7.7%	6.8%	7.5%	7.1%	6.4%	*5.7%*	*5.7%*	Net Profit Margin	*5.5%*
						41.4%	46.0%	45.0%	46.0%	45.1%	43.0%	47.6%	49.7%	46.0%	47.0%	*47.0%*	*47.0%*	Long-Term Debt Ratio	*47%*
						52.8%	49.0%	50.6%	49.9%	50.9%	53.2%	51.5%	50.3%	54.0%	53.0%	*53.0%*	*53.0%*	Common Equity Ratio	*53%*
						657.4	748.0	815.6	861.5	887.8	880.5	937.3	1006.6	1052.5	1108.4	*1150*	*1200*	Total Capital ($mill)	*1350*
						745.3	827.5	894.7	895.9	934.0	965.0	995.6	1205.9	1318.4	1373.4	*1375*	*1400*	Net Plant ($mill)	*1500*
						8.9%	7.4%	5.0%	6.8%	6.7%	6.9%	5.9%	5.7%	5.9%	6.5%	*7.0%*	*7.0%*	Return on Total Cap'l	*7.0%*
						12.1%	10.7%	6.1%	9.7%	9.6%	10.0%	8.9%	9.1%	8.9%	9.9%	*10.0%*	*10.5%*	Return on Shr. Equity	*10.5%*
						12.7%	11.0%	6.0%	9.9%	10.0%	10.2%	8.5%	9.0%	8.9%	9.9%	*10.0%*	*10.5%*	Return on Com Equity	*10.5%*
						5.0%	3.6%	NMF	2.8%	3.1%	3.5%	1.9%	2.6%	2.7%	3.7%	*3.7%*	*3.7%*	Retained to Com Eq	*3.8%*
						63%	70%	118%	74%	70%	67%	79%	72%	69%	63%	*62%*	*59%*	All Div'ds to Net Prof	*60%*

CAPITAL STRUCTURE as of 6/30/06
Total Debt $577.3 mill. **Due in 5 Yrs** $204.2 mill.
LT Debt $492.0 mill. **LT Interest** $31.0 mill.

(Total interest coverage: 3.4x)

Pension Assets-12/05 $218.6 mill.
Oblig. $267.9 mill.
Pfd Stock None

Common Stock 27,548,346 shs.
as of 7/31/06
MARKET CAP $1.1 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2004	2005	6/30/06
Cash Assets	5.2	7.1	6.6
Other	231.9	316.6	191.5
Current Assets	237.1	323.7	198.1
Accts Payable	102.5	135.3	76.8
Debt Due	117.5	134.7	85.3
Other	47.3	56.6	53.0
Current Liab.	267.3	326.6	215.1
Fx. Chg. Cov.	316%	340%	NMF

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '03-'05 to '09-'11
Revenues	4.5%	8.0%	*11.0%*
"Cash Flow"	1.5%	2.5%	*4.5%*
Earnings	1.5%	5.0%	*7.0%*
Dividends	1.0%	1.0%	*4.0%*
Book Value	4.0%	3.5%	*3.5%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2003	206.5	117.5	69.5	217.8	611.3
2004	254.5	109.7	81.4	262.0	707.6
2005	308.7	153.7	106.7	341.4	910.5
2006	390.4	171.0	*130*	*333.6*	*1025*
2007	*375*	*185*	*140*	*350*	*1050*

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2003	1.01	.17	d.25	.83	1.76
2004	1.24	d.03	d.30	.95	1.86
2005	1.44	.04	d.31	.94	2.11
2006	1.48	.07	*d.30*	*.97*	*2.22*
2007	*1.55*	*.05*	*d.30*	*1.10*	*2.40*

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2002	.315	.315	.315	.315	1.26
2003	.315	.315	.315	.325	1.27
2004	.325	.325	.325	.325	1.30
2005	.325	.325	.325	.345	1.32
2006	.345	.345	.345		

BUSINESS: Northwest Natural Gas Co. distributes natural gas at retail to 90 communities, 624,000 customers, in Oregon (90% of custs.) and in southwest Washington state. Principal cities served: Portland and Eugene, OR; Vancouver, WA. Service area population: 2.4 mill. (77% in OR). Company buys gas supply from Canadian and U.S. producers; has transportation rights on Northwest Pipeline system to bring gas to market. Owns local underground storage. Rev. breakdown: residential, 53%; commercial, 27%; industrial, gas transportation, and other, 20%. Employs 1,305. Barclays owns 6.2% of shares; insiders, 1% (4/06 proxy). CEO: Mark S. Dodson. Inc.: OR. Address: 220 NW 2nd Ave., Portland, OR 97209. Tel.: 503-226-4211. Internet: www.nwnatural.com.

Northwest Natural's second-quarter earnings turned out a bit better than expected, despite weather that was 16% warmer than average and 12% warmer than last year's. The company's share of *commodity cost savings* added about $0.03 a share in the June period, and profits from interstate gas storage contributed an additional $0.02. Operations and maintenance expenses were up 3% but would have risen 2% without increased bad debt costs, due to higher gas prices.

We anticipate roughly normal earnings growth over the balance of the year. Northwest Natural increased its customer count by 3.3% in the 12 months ended in June, and the new accounts should boost earnings through 2006 and 2007. While the national economy is definitely slowing, Portland seems to be doing better than the nation as a whole, with little decline in new home construction. (Northwest's share of new home heating fuel is over 90%.) But the company plans to lay off 50 to 100 employees in the second half of the year, and severance costs will probably add up to around $0.04 a share in the fourth quarter.

Earnings in 2007 will likely benefit from new efficiency and cost-cutting efforts. Northwest has begun to implement a companywide plan to reduce costs by consolidating some operations, standardizing functions, and outsourcing some operations, such as new construction. The plan will take a few years to implement completely and will probably result in a workforce reduction of 200 to 250 employees, some by normal attrition.

Northwest's earnings will probably grow faster than its industry's, thanks to above-average customer growth. The area to the southeast of Portland will soon be zoned for higher density, permitting profitable installation of gas mains and significant customer growth. And the company serves less than 60% of its market at present, allowing it to pick up new customers as old oil tanks need replacing.

These neutrally ranked shares have below-average total return potential at their recent quotation. Although we like Northwest's prospects, we think investors will have an opportunity to invest at a better price.

Sigourney B. Romaine September 15, 2006

(A) Diluted earnings per share. Excludes nonrecurring gain: '98, $0.15; '00, $0.11. Next earnings report due early November.
(B) Dividends historically paid in mid-February, mid-May, mid-August, and mid-November.
■ Div'd reinvestment plan available.
(C) In millions, adjusted for stock split.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	55
Earnings Predictability	75

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PIEDMONT NAT'L. NYSE-PNY

RECENT PRICE 25.29 | P/E RATIO 18.9 (Trailing: 18.2; Median: 17.0) | RELATIVE P/E RATIO 1.11 | DIV'D YLD 3.9% | VALUE LINE

TIMELINESS 4 Raised 12/23/05
SAFETY 2 New 7/27/90
TECHNICAL 2 Raised 9/8/06
BETA .80 (1.00 = Market)

High:	12.4	12.9	18.2	18.1	18.3	19.7	19.0	19.0	22.0	24.3	25.8	26.2
Low:	9.1	10.3	11.0	13.9	14.3	11.8	14.6	13.7	16.6	19.2	21.3	23.2

Target Price Range 2009 | 2010 | 2011

LEGENDS
— 1.40 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 4/93
2-for-1 split 11/04
Options: No
Shaded area indicates recession

2-for-1

2009-11 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	40	(+60%)	15%
Low	30	(+20%)	8%

Insider Decisions

	O	N	D	J	F	M	A	M	J
to Buy	10	24	11	10	9	9	9	9	9
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	2	0	1	1	1	0	1

Institutional Decisions

	4Q2005	1Q2006	2Q2006
to Buy	76	66	85
to Sell	77	71	61
Hld's(000)	30419	31060	32936

Percent shares traded 7.5 / 5 / 2.5

% TOT. RETURN 8/06

	THIS STOCK	VL ARITH. INDEX
1 yr.	10.4	7.1
3 yr.	51.6	49.4
5 yr.	97.3	70.4

1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	© VALUE LINE PUB., INC.	09-11
9.42	8.32	8.91	10.57	10.82	8.76	11.59	12.84	12.45	10.97	13.01	17.06	12.57	18.14	19.95	22.96	**26.00**	**28.20**	Revenues per sh A	**33.10**
.97	.78	1.07	1.14	1.13	1.25	1.49	1.62	1.72	1.70	1.77	1.81	1.81	2.04	2.31	2.43	**2.50**	**2.65**	"Cash Flow" per sh	**3.20**
.61	.44	.70	.73	.68	.73	.84	.93	.98	.93	1.01	1.01	.95	1.11	1.27	1.32	**1.30**	**1.40**	Earnings per sh B	**1.75**
.42	.44	.46	.48	.51	.54	.57	.61	.64	.68	.72	.76	.80	.82	.85	.91	**.96**	**1.00**	Div'ds Decl'd per sh C■	**1.17**
1.62	1.37	1.41	1.58	1.95	1.72	1.64	1.52	1.48	1.58	1.65	1.29	1.21	1.16	1.85	2.50	**2.65**	**2.40**	Cap'l Spending per sh	**2.20**
4.58	4.83	5.13	5.45	5.68	6.16	6.53	6.95	7.45	7.86	8.26	8.63	8.91	9.36	11.15	11.53	**10.85**	**11.35**	Book Value per sh D	**12.75**
42.87	49.46	51.59	52.30	53.15	57.67	59.10	60.39	61.48	62.59	63.83	64.93	66.18	67.31	76.67	76.70	**75.00**	**74.50**	Common Shs Outst'g E	**72.50**
11.3	16.3	12.3	15.4	15.7	13.8	13.9	13.6	16.3	17.7	14.3	16.7	18.4	16.7	16.6	17.9	*Bold figures are*		Avg Ann'l P/E Ratio	**19.0**
.84	1.04	.75	.91	1.03	.92	.87	.78	.85	1.01	.93	.86	1.01	.95	.88	.95	*Value Line*		*Relative P/E Ratio*	**1.25**
6.0%	6.0%	5.3%	4.3%	4.8%	5.4%	4.9%	4.8%	4.0%	4.1%	5.0%	4.5%	4.6%	4.4%	4.1%	3.8%	*estimates*		Avg Ann'l Div'd Yield	**3.5%**

CAPITAL STRUCTURE as of 4/30/06
Total Debt $912.0 mill. **Due in 5 Yrs** $325.0 mill.
LT Debt $625.0 mill. **LT Interest** $40.0 mill.
(LT interest earned: 4.5x; total interest coverage: 4.5x)

Pension Assets-10/05 $199.2 mill. **Oblig.** $236.6 mill.

Pfd Stock None

Common Stock 75,277,520 shs. as of 6/2/06

MARKET CAP: $1.9 billion (Mid Cap)

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		09-11
685.1	775.5	765.3	686.5	830.4	1107.9	832.0	1220.8	1529.7	1761.1	**1950**	**2100**	Revenues ($mill) A	**2400**
48.6	55.2	60.3	58.2	64.0	65.5	62.2	74.4	95.2	101.3	**100**	**105**	Net Profit ($mill)	**130**
38.9%	39.1%	39.2%	39.7%	34.7%	34.6%	33.1%	34.8%	35.1%	33.7%	**35.0%**	**36.0%**	Income Tax Rate	**36.0%**
7.1%	7.1%	7.9%	8.5%	7.7%	5.9%	7.5%	6.1%	6.2%	5.8%	**5.1%**	**5.1%**	Net Profit Margin	**5.3%**
50.3%	47.6%	44.7%	46.2%	46.1%	47.6%	43.9%	42.2%	43.6%	41.4%	**43.5%**	**42.5%**	Long-Term Debt Ratio	**42.0%**
49.7%	52.4%	55.3%	53.8%	53.9%	52.4%	56.1%	57.8%	56.4%	58.6%	**56.5%**	**57.5%**	Common Equity Ratio	**58.0%**
777.1	800.8	829.3	914.7	978.4	1069.4	1051.6	1090.2	1514.9	1509.2	**1440**	**1470**	Total Capital ($mill)	**1600**
862.0	941.7	990.6	1047.0	1072.0	1114.7	1158.5	1812.3	1849.8	1939.1	**2040**	**2170**	Net Plant ($mill)	**2400**
8.2%	8.9%	9.2%	8.1%	8.3%	7.9%	7.8%	8.6%	7.8%	8.2%	**8.5%**	**8.5%**	Return on Total Cap'l	**9.0%**
12.6%	13.1%	13.2%	11.8%	12.1%	11.7%	10.6%	11.8%	11.1%	11.5%	**12.0%**	**12.5%**	*Return on Shr. Equity*	**13.0%**
12.6%	13.1%	13.2%	11.8%	12.1%	11.7%	10.6%	11.8%	11.1%	11.5%	**12.0%**	**12.5%**	Return on Com Equity	**13.0%**
3.9%	4.6%	4.7%	3.3%	3.5%	3.0%	1.7%	3.1%	3.7%	3.6%	**3.5%**	**4.0%**	Retained to Com Eq	**4.5%**
69%	65%	65%	72%	71%	75%	83%	74%	66%	68%	**72%**	**70%**	All Div'ds to Net Prof	**67%**

CURRENT POSITION ($MILL.)	2004	2005	4/30/06
Cash Assets	5.7	7.1	20.3
Other	329.5	497.8	431.7
Current Assets	335.2	504.9	452.0
Accts Payable	99.6	182.8	73.7
Debt Due	109.5	193.5	287.0
Other	97.1	152.3	123.0
Current Liab.	306.2	528.6	483.7
Fix. Chg. Cov.	378%	400%	390%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '03-'05 to '09-'11
Revenues	7.5%	11.0%	8.5%
"Cash Flow"	7.0%	5.5%	6.0%
Earnings	5.5%	5.0%	6.0%
Dividends	5.5%	5.0%	5.5%
Book Value	6.5%	6.5%	3.0%

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) A Jan.31	Apr.30	Jul.31	Oct.31	Full Fiscal Year
2003	493.5	407.8	140.1	179.4	1220.8
2004	618.8	482.4	214.7	213.8	1529.7
2005	680.6	508.0	232.9	339.6	1761.1
2006	921.4	483.2	237.9	**307.5**	**1950**
2007	**875**	**565**	**315**	**345**	**2100**

Fiscal Year Ends	EARNINGS PER SHARE A B F Jan.31	Apr.30	Jul.31	Oct.31	Full Fiscal Year
2003	.87	.47	d.15	d.08	1.11
2004	1.03	.54	d.11	d.21	1.27
2005	.93	.52	d.06	d.07	1.32
2006	.94	.57	d.16	**d.05**	**1.30**
2007	**.98**	**.57**	**d.06**	**d.09**	**1.40**

Cal-endar	QUARTERLY DIVIDENDS PAID C■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2002	.193	.20	.20	.20	.79
2003	.20	.208	.208	.208	.82
2004	.208	.215	.215	.215	.85
2005	.215	.23	.23	.23	.91
2006	.23	.24	.24		

BUSINESS: Piedmont Natural Gas Company is primarily a regulated natural gas distributor, serving over 990,000 customers in North Carolina, South Carolina, and Tennessee. 2005 revenue mix: residential (39%), commercial (24%), industrial (13%), other (24%). Principal suppliers: Transco and Tennessee Pipeline. Gas costs: 71.6% of revenues. '05 deprec. rate: 3.3%. Estimated plant age: 8.7 years. Non-regulated operations: sale of gas-powered heating equipment; natural gas brokering; propane sales. Has about 2,125 employees. Officers & directors own less than 1% of common stock (1/06 proxy). CEO & President: Thomas E. Skains. Inc.: NC. Addr.: 1915 Rexford Road, P.O. Box 33068 Charlotte, NC 28233. Telephone: 704-364-3120. Internet: www.piedmontng.com.

Piedmont Natural Gas posted a larger share loss than we had anticipated. The fiscal third quarter (ended July 31st) was impacted by reduced margins due to rate design changes, and costs associated with the company's corporate restructuring program. In July, Piedmont and North Carolina's Attorney General office reached a settlement on its customer utilization tracker rate mechanism, which decouples the collection of utility margin from customer volume. This plan is favorable for both customers, who will benefit by the more efficient use of natural gas, and Piedmont shareholders, who will not suffer the negative consequences of conservation by customers. As part of the agreement, the company will fund up to $1.5 million annually over the next few years toward customer conservation programs, in addition to the $500,000 it had already committed to spend. Furthermore, Piedmont's initial restructuring involved offering early retirement to management-level employees and will eventually include other positions as part of an effort to streamline business processes and improve corporate efficiencies. The company should realize about $5 million to $6 million in annual cost savings beginning in 2007.

The company's nonutility operations will likely represent a greater percentage of future profits. Over the first six months of 2006, these activities contributed earnings of $25.5 million, which is nearly 20% above the year-ago period. Even though regulated operations make up most of Piedmont's total income, unregulated operations such as Cardinal Pipeline, Pine Needle, and SouthStar Energy provide an added boost to the company's bottom line. We expect Piedmont to continue to pursue strategic investments to diversify its earnings stream over the next few years.

Though untimely, this stock is suitable for conservative income-oriented investors. Piedmont offers a respectable dividend yield at 3.9% and has an Above Average Safety rank (2). Moreover, the company should benefit as it diversifies its supply portfolio away from the Gulf Coast region through agreements with Midwestern Gas Transmission Company and Hardy Storage Company.

Evan I. Blatter *September 15, 2006*

(A) Fiscal year ends October 31st.
(B) Diluted earnings. Excl. extraordinary item: '00, 8¢. Excl. nonrecurring charge: '97, 2¢. Next earnings report due mid-Dec.
(C) Dividends historically paid mid-January, April, July, October.
■ Div'd reinvest. plan available; 5% discount.
(D) Includes deferred charges. At 10/31/05: $4.0 million, 5¢/share.
(E) In millions, adjusted for stock splits.
(F) Quarters may not add to total due to change in shares outstanding.

Company's Financial Strength	B++
Stock's Price Stability	100
Price Growth Persistence	75
Earnings Predictability	80

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SOUTH JERSEY INDS. NYSE-SJI

RECENT PRICE 28.80 | P/E RATIO 15.2 (Trailing: 17.2; Median: 14.0) | RELATIVE P/E RATIO 0.89 | DIV'D YLD 3.2% | VALUE LINE

TIMELINESS 5 Lowered 4/7/06

SAFETY 2 Lowered 1/4/91

TECHNICAL 3 Raised 7/21/06

BETA .70 (1.00 = Market)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
High:	11.8	12.3	15.3	15.4	15.4	15.1	17.0	18.3	20.3	26.5	32.4	30.2
Low:	8.9	10.1	10.5	11.0	10.8	12.3	13.8	14.1	15.3	19.7	24.9	25.6

Target Price Range: 2009 | 2010 | 2011

LEGENDS
- —— 1.03 x Dividends p sh divided by Interest Rate
- .... Relative Price Strength
- 2-for-1 split 7/05
- Options: No
- *Shaded area indicates recession*

2009-11 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	40	(+40%)	11%
Low	30	(+5%)	4%

Insider Decisions

	O	N	D	J	F	M	A	M	J
to Buy	0	1	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	3	0	0	0

Institutional Decisions

	4Q2005	1Q2006	2Q2006
to Buy	63	59	64
to Sell	49	52	46
Hld's(000)	14085	14260	15700

Percent shares traded: 6, 4, 2

% TOT. RETURN 8/06

	THIS STOCK	VL ARITH. INDEX
1 yr.	1.5	7.1
3 yr.	67.6	49.4
5 yr.	115.8	70.4

1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	© VALUE LINE PUB., INC.	09-11
14.40	15.10	16.67	17.03	17.45	16.50	16.52	16.18	20.89	17.60	22.43	35.30	20.69	26.34	29.51	31.78	32.90	34.10	Revenues per sh	38.25
1.34	1.37	1.56	1.54	1.35	1.65	1.54	1.60	1.44	1.84	1.95	1.90	2.12	2.24	2.44	2.51	2.80	3.00	"Cash Flow" per sh	3.50
.67	.64	.81	.78	.61	.83	.85	.86	.64	1.01	1.08	1.15	1.22	1.37	1.58	1.71	1.85	1.95	Earnings per sh A	2.35
.70	.71	.71	.72	.72	.72	.72	.72	.72	.72	.73	.74	.75	.78	.82	.86	.92	.96	Div'ds Decl'd per sh B ■	1.15
2.11	2.17	1.69	1.87	1.93	2.08	2.01	2.30	3.06	2.19	2.21	2.82	3.47	2.36	2.67	3.21	3.60	3.70	Cap'l Spending per sh	4.05
6.79	6.77	6.95	7.17	7.23	7.34	8.03	6.43	6.23	6.74	7.25	7.81	9.67	11.26	12.41	13.50	14.30	15.10	Book Value per sh C	17.55
18.06	18.48	19.00	19.61	21.43	21.44	21.51	21.54	21.56	22.30	23.00	23.72	24.41	26.46	27.76	28.98	29.20	29.60	Common Shs Outst'g D	31.00
13.6	14.5	13.2	15.8	16.1	12.2	13.3	13.8	21.2	13.3	13.0	13.6	13.5	13.3	14.1	16.6	*Bold figures are*	*Value Line*	Avg Ann'l P/E Ratio	14.0
1.01	.93	.80	.93	1.06	.82	.83	.80	1.10	.76	.85	.70	.74	.76	.74	.88	*estimates*		Relative P/E Ratio	.95
7.7%	7.6%	6.6%	5.9%	7.4%	7.2%	6.4%	6.1%	5.3%	5.4%	5.2%	4.7%	4.6%	4.3%	3.7%	3.0%			Avg Ann'l Div'd Yield	3.5%

CAPITAL STRUCTURE as of 6/30/06
Total Debt $505.1 mill. Due in 5 Yrs $175.0 mill.
LT Debt $358.1 mill. LT Interest $20.0 mill.
(Total interest coverage: 4.8x)

Pension Assets-12/05 $108.5 mill. Oblig. $126.7 mill.

Pfd Stock none

Common Stock 29,232,801 common shs. as of 8/1/06

MARKET CAP: $850 million (Small Cap)

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		09-11
355.5	348.6	450.2	392.5	515.9	837.3	505.1	696.8	819.1	921.0	960	1010	Revenues ($mill)	1185
18.5	18.4	13.8	22.0	24.7	26.8	29.4	34.6	43.0	48.6	55.0	60.0	Net Profit ($mill)	70.0
35.5%	36.8%	46.2%	42.8%	43.1%	42.2%	41.4%	40.6%	40.9%	41.5%	40.5%	40.5%	Income Tax Rate	40.5%
5.2%	5.3%	3.1%	5.6%	4.8%	3.2%	5.8%	5.0%	5.2%	5.3%	5.6%	5.6%	Net Profit Margin	6.0%
46.1%	54.6%	57.3%	53.8%	54.1%	57.0%	53.6%	50.8%	48.7%	44.9%	43.0%	43.0%	Long-Term Debt Ratio	40.0%
53.2%	35.8%	33.5%	37.0%	37.6%	35.9%	46.1%	49.0%	51.0%	55.1%	57.0%	57.0%	Common Equity Ratio	60.0%
324.8	387.1	401.1	405.9	443.5	516.2	512.5	608.4	675.0	710.3	735	780	Total Capital ($mill)	895
423.9	456.5	504.3	533.3	562.2	607.0	666.6	748.3	799.9	877.3	940	1010	Net Plant ($mill)	1200
7.9%	6.7%	5.3%	7.4%	7.4%	6.9%	7.6%	7.3%	7.9%	8.3%	8.5%	8.5%	Return on Total Cap'l	9.0%
10.5%	10.5%	8.1%	11.7%	12.1%	12.1%	12.4%	11.5%	12.4%	12.4%	13.0%	13.0%	Return on Shr. Equity	13.0%
10.6%	13.3%	10.3%	14.6%	14.8%	12.8%	12.5%	11.6%	12.5%	12.4%	13.0%	13.0%	Return on Com Equity	13.0%
1.6%	2.1%	NMF	4.2%	4.8%	3.5%	4.7%	5.0%	5.9%	6.2%	6.5%	6.5%	Retained to Com Eq	6.5%
85%	84%	112%	72%	67%	76%	62%	57%	52%	50%	50%	50%	All Div'ds to Net Prof	52%

CURRENT POSITION ($MILL.)	2004	2005	6/30/06
Cash Assets	10.6	4.9	6.9
Other	273.3	352.6	288.9
Current Assets	283.9	357.5	295.8
Accts Payable	118.8	179.0	74.8
Debt Due	97.6	149.7	147.0
Other	68.9	74.4	105.2
Current Liab.	285.3	403.1	327.0
Fix. Chg. Cov.	426%	486%	445%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '03-'05 to '09-'11
Revenues	5.5%	7.5%	4.5%
"Cash Flow"	4.5%	6.5%	6.5%
Earnings	8.0%	11.5%	7.0%
Dividends	1.5%	2.5%	6.0%
Book Value	5.5%	13.0%	6.0%

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2003	279.9	106.2	90.1	220.6	696.8
2004	307.6	136.5	129.5	245.5	819.1
2005	328.6	154.0	157.0	281.4	921.0
2006	365.0	155.5	162	277.5	960
2007	375	175	172	288	1010

Calendar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2003	.92	.08	d.07	.44	1.37
2004	.91	.15	.02	.50	1.58
2005	.96	.27	.09	.39	1.71
2006	.93	.25	.14	.53	1.85
2007	.98	.30	.12	.55	1.95

Calendar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2002	.185	.188	.188	.38	.94
2003	--	.193	.193	.395	.78
2004	--	.202	.202	.415	.82
2005	--	.213	.213	.438	.86
2006	--	.225	.225		

BUSINESS: South Jersey Industries, Inc. is a holding company. Its subsidiary, South Jersey Gas Co., distributes natural gas to 322,424 customers in New Jersey's southern counties, which covers 2,500 square miles and includes Atlantic City. Gas revenue mix '05: residential, 45%; commercial, 23%; cogeneration and electric generation 4%; industrial, 23%. Non-utility operations include: South Jersey Energy, South Jersey Resource Group, Marina Energy, and South Jersey Energy Services Plus. Has 636 employees. Off./dir. cntrl. 1.5% of com. shares; Dimensional Fund Advisors, 7.9%; Barclays, 5.3% (3/06 proxy). Chrmn. & CEO: Edward Graham. Incorp.: NJ. Address: 1 South Jersey Plaza, Rte. 54, Folsom, NJ 08037. Tel.: 609-561-9000. Internet: www.sjindustries.com.

South Jersey Industries' earnings comparisons have been weak over the first six months of 2006. This is largely due to warmer than normal temperatures and conservation by customers as a result of high natural gas prices. On the positive side, there is continued optimism that the company's conservation and usage adjustment proposal will be approved by the New Jersey Board of Public Utilities and be in place by next winter's heating season. Moreover, the utility added 8,740 customers during the past 12 months, which represents nearly a 3% increase over the prior year. Due to the strength of the local economy and demand for housing in the region, the company should add customers at a rate exceeding the industry average over the next few years. For 2006, we look for earnings to advance about 8%, to $1.85, due to a pickup in nonregulated activities, followed by a more sustainable 6%-7% rate out to late decade.

Marina Energy still has room for growth. It recently completed the expansion of its Atlantic City thermal plant to support the 500,000-square-foot expansion to the gaming area at the Borgata Hotel Casino & Spa. Results should be further enhanced toward the end of next year when an 800-room tower is completed at the Borgata. Also, Marina is in the process of completing a 3.8 megawatt methane-to-electric generation project at the Warren County district landfill, which should provide additional opportunities for growth. Looking ahead, the subsidiary may be able to benefit should a casino/hotel be built on a 50-acre property owned by MGM that is located next to the Borgata.

After a slow start to the year, the Residential & Commercial Service business may exceed its 2005 performance going forward. This is primarily due to recent additions to its portfolio of services that include propane heaters and appliances, and small commercial heating, ventilating, and air conditioning systems.

This untimely stock is best suited for investors seeking moderate yield and good dividend growth potential. Over the 2009-2011 period, we look for steady dividend increases, which should push the yield to around 3.5%, along with a slight reduction in the debt-to-equity ratio.

Evan I. Blatter *September 15, 2006*

(A) Based on avg. shs. Excl. nonrecur. gain: '01, $0.13. Excl gain (losses) from discont. ops.: '96, $1.14; '97, ($0.24); '98, ($0.26); '99, ($0.02); '00, ($0.04); '01, ($0.02); '02, ($0.04); '03, ($0.09); '05, ($0.02). Excl. gains due to acct'g change: '93, $0.04; '01, $0.14. Next egs. report due late Oct.
(B) Dividends paid early Apr., Jul., Oct, and late Dec. ■ Div. reinvest. plan avail. (2% disc.).
(C) Incl. regulatory assets ($121.5 mill.): at 12/31/05, $4.19 per shr.
(D) In millions, adjusted for split.

Company's Financial Strength	B++
Stock's Price Stability	100
Price Growth Persistence	95
Earnings Predictability	90

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WGL HOLDINGS NYSE-WGL

RECENT PRICE 30.77 | P/E RATIO 14.4 (Trailing: 17.1 Median: 15.0) | RELATIVE P/E RATIO 0.85 | DIV'D YLD 4.5% | VALUE LINE

TIMELINESS 4 Raised 8/4/06
SAFETY 1 Raised 4/2/93
TECHNICAL 3 Raised 5/26/06
BETA .80 (1.00 = Market)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
High:	22.4	25.0	31.4	30.8	29.4	31.5	30.5	29.5	28.8	31.4	34.8	31.5
Low:	16.1	19.1	20.9	23.1	21.0	21.8	25.3	19.3	23.2	26.7	28.8	27.0

Target Price Range 2009 | 2010 | 2011

LEGENDS
—— 1.30 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 5/95
Options: No
Shaded area indicates recession

2009-11 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	35	(+15%)	7%
Low	30	(-5%)	4%

Insider Decisions

	O	N	D	J	F	M	A	M	J
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	4Q2005	1Q2006	2Q2006
to Buy	88	70	73
to Sell	67	77	78
Hld's(000)	27959	27311	29760

Percent shares traded 9 6 3

% TOT. RETURN 8/06

	THIS STOCK	VL ARITH. INDEX
1 yr.	-1.2	7.1
3 yr.	32.0	49.4
5 yr.	44.8	70.4

1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	© VALUE LINE PUB., INC.	09-11
18.75	17.50	18.37	21.55	21.69	19.30	22.19	24.16	23.74	20.92	22.19	29.80	32.63	42.45	42.93	44.94	*53.80*	*55.40*	Revenues per sh A	*61.50*
2.17	2.04	2.17	2.25	2.43	2.51	2.93	3.02	2.79	2.74	3.20	3.24	2.63	4.00	3.87	3.97	*3.75*	*3.90*	"Cash Flow" per sh	*4.50*
1.26	1.14	1.27	1.31	1.42	1.45	1.85	1.85	1.54	1.47	1.79	1.88	1.14	2.30	1.98	2.11	*1.85*	*1.95*	Earnings per sh B	*2.35*
1.01	1.05	1.07	1.09	1.11	1.12	1.14	1.17	1.20	1.22	1.24	1.26	1.27	1.28	1.30	1.32	*1.35*	*1.38*	Div'ds Decl'd per sh C■	*1.48*
2.38	2.05	2.17	2.43	2.84	2.63	2.85	3.20	3.62	3.42	2.67	2.68	3.34	2.65	2.33	2.32	*3.40*	*3.30*	Cap'l Spending per sh	*4.00*
10.17	9.63	10.66	11.04	11.51	11.95	12.79	13.48	13.86	14.72	15.31	16.24	15.78	16.25	16.95	17.80	*17.85*	*18.60*	Book Value per sh D	*21.15*
39.23	39.89	40.62	41.50	42.19	42.93	43.70	43.70	43.84	46.47	46.47	48.54	48.56	48.63	48.67	48.65	*48.70*	*48.70*	Common Shs Outst'g E	*48.80*
11.7	12.8	13.6	15.6	14.0	12.7	11.5	12.7	17.2	17.3	14.6	14.7	23.1	11.1	14.2	14.7	*Bold figures are*		Avg Ann'l P/E Ratio	*14.0*
.87	.82	.82	.92	.92	.85	.72	.73	.89	.99	.95	.75	1.26	.63	.75	.78	*Value Line*		Relative P/E Ratio	*.90*
6.9%	7.2%	6.2%	5.3%	5.6%	6.1%	5.4%	5.0%	4.5%	4.8%	4.8%	4.6%	4.8%	5.0%	4.6%	4.2%	*estimates*		Avg Ann'l Div'd Yield	*4.3%*

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		09-11
	969.8	1055.8	1040.6	972.1	1031.1	1446.5	1584.8	2064.2	2089.6	2186.3	*2620*	*2700*	Revenues ($mill) A	*3000*
	81.6	82.0	68.6	68.8	84.6	89.9	55.7	112.3	98.0	104.8	*90.0*	*95.0*	Net Profit ($mill)	*115*
	37.7%	36.9%	35.6%	36.0%	36.1%	39.6%	34.0%	38.0%	38.2%	37.4%	*38.0%*	*38.0%*	Income Tax Rate	*38.0%*
	8.4%	7.8%	6.6%	7.1%	8.2%	6.2%	3.5%	5.4%	4.7%	4.8%	*3.5%*	*3.6%*	Net Profit Margin	*3.8%*
	37.6%	41.1%	40.3%	41.5%	43.1%	41.7%	45.7%	43.8%	40.9%	39.5%	*39.0%*	*39.0%*	Long-Term Debt Ratio	*39.0%*
	59.4%	56.2%	57.1%	56.1%	54.8%	56.3%	52.4%	54.3%	57.2%	58.6%	*59.0%*	*59.0%*	Common Equity Ratio	*59.0%*
	941.1	1049.0	1064.8	1218.5	1299.2	1400.8	1462.5	1454.9	1443.6	1478.1	*1515*	*1575*	Total Capital ($mill)	*1780*
	1130.6	1217.1	1319.5	1402.7	1460.3	1519.7	1606.8	1874.9	1915.6	1969.7	*2120*	*2270*	Net Plant ($mill)	*2550*
	10.1%	9.3%	8.0%	7.1%	7.9%	7.9%	5.3%	9.1%	8.2%	8.5%	*6.0%*	*6.0%*	Return on Total Cap'l	*6.5%*
	13.9%	13.3%	10.8%	9.7%	11.4%	11.0%	7.0%	13.7%	11.5%	11.7%	*10.0%*	*10.0%*	Return on Shr. Equity	*10.5%*
	14.4%	13.7%	11.1%	9.9%	11.7%	11.2%	7.2%	14.0%	11.7%	12.0%	*10.0%*	*10.0%*	Return on Com Equity	*11.0%*
	5.6%	5.1%	2.5%	1.8%	3.7%	3.8%	NMF	6.2%	4.1%	4.6%	*2.5%*	*3.0%*	Retained to Com Eq	*4.0%*
	62%	63%	78%	82%	69%	67%	112%	56%	65%	62%	*74%*	*72%*	All Div'ds to Net Prof	*64%*

CAPITAL STRUCTURE as of 6/30/06
Total Debt $726.8 mill. Due in 5 Yrs $520.0 mill.
LT Debt $581.8 mill. LT Interest $40.0 mill.
(LT interest earned: 4.6x; total interest coverage: 4.2x)
Pension Assets-9/05 $691.7 mill. Oblig. $691.2 mill.
Preferred Stock $28.2 mill. Pfd Div'd $1.3 mill.

Common Stock 48,773,729 shs. as of 7/31/06

MARKET CAP: $1.5 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2004	2005	6/30/06
Cash Assets	6.6	4.8	88.1
Other	426.3	476.2	454.3
Current Assets	432.9	481.0	542.4
Accts Payable	179.0	204.9	172.4
Debt Due	156.3	91.0	145.0
Other	77.6	115.5	147.8
Current Liab.	412.9	411.4	465.2
Fix. Chg. Cov.	449%	460%	450%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '03-'05 to '09-'11
Revenues	7.5%	14.5%	6.0%
"Cash Flow"	5.0%	6.5%	2.0%
Earnings	4.5%	6.0%	1.5%
Dividends	1.5%	1.5%	2.0%
Book Value	4.0%	3.0%	3.5%

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) A Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2003	560.0	851.1	373.2	279.9	2064.2
2004	585.3	862.2	356.9	285.2	2089.6
2005	623.4	929.8	349.0	284.1	2186.3
2006	909.3	1070.4	346.9	*293.4*	*2620*
2007	*960*	*1010*	*380*	*350*	*2700*

Fiscal Year Ends	EARNINGS PER SHARE A B Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2003	1.10	1.61	d.05	d.36	2.30
2004	.81	1.62	d.08	d.37	1.98
2005	.88	1.63	d.17	d.23	2.11
2006	.91	1.16	d.01	*d.21*	*1.85*
2007	*.95*	*1.40*	*d.15*	*d.25*	*1.95*

Cal-endar	QUARTERLY DIVIDENDS PAID C■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2002	.315	.318	.318	.318	1.27
2002	.318	.32	.32	.32	1.28
2003	.32	.325	.325	.325	1.30
2004	.325	.333	.333	.333	1.32
2005	.333	.338	.338		

BUSINESS: WGL Holdings, Inc. is the parent of Washington Gas Light, a natural gas distributor in Washington, D.C. and adjacent areas of VA. and MD. to resident'l and comm'l users (1,032,198 meters). Hampshire Gas, a federally regulated sub., operates an underground gas-storage facility in WV. Non-regulated subs.: Wash. Gas Energy Svcs. sells and delivers natural gas and provides energy related products in the D.C. metro area; Wash. Gas Energy Sys. designs/installs comm'l heating, ventilating, and air cond. systems. American Century Inv. own 9.3% of common stock; Off./dir. less than 1% (1/06 proxy). Chrmn. & CEO: J.H. DeGraffenreidt. Inc.: D.C. and VA. Addr.: 1100 H St., N.W., Washington, D.C. 20080. Tel.: 202-624-6410. Internet: www.wglholdings.com.

WGL Holdings posted solid results in the seasonally weak fiscal third quarter (ended June 30th). It reported a share net loss of $0.01, which excluded the results from the recently sold American Combustion Industries subsidiary, significantly ahead of last year's figure. The results were driven by lower operation and maintenance expense, utility customer growth, and improved performance at the retail energy-marketing business. In fact, income from this segment nearly doubled from the year-ago period, to $6.1 million, thanks to higher gross margins from the sale of natural gas and electricity. This should help push nonutility earnings to about $0.21 a share this year, with additional improvements likely in 2007.

WGL expects to file a pair of rate increases. One will soon be with the Virginia State Corporation Commission, and another with the Maryland Public Service Commission next spring. The primary need for the Maryland rate increase is to recover costs associated with the Prince George's County rehabilitation program. The project is scheduled to be completed in 2008 at a $144 million price tag. If this project is fully recovered through a rate increase, which is probable, WGL should realize a $0.16-a-share boost to earnings.

The company is slated to spend about $855 million on capital improvement projects out to 2010. WGL expects to begin construction on its LNG storage facility in late 2008 pending regulatory approval, two years later than previously anticipated due to zoning and other legal challenges, and scheduled to be completed by the 2011-2012 winter. However, until approval is granted WGL will explore other opportunities to meet its peak day requirements to serve its customers.

These shares are best suited for conservative investors. The dividend yield stands at 4.5%, above the industry average, while the stock's Safety rank is 1 (Highest). Long term, we look for Washington Gas to add about 25,000–30,000 new utility customers annually, thanks to the new home construction expected in its service areas over the next 20 years. The stock, which is not well ranked for performance is dependable for income. But its price range only inches up over time.

Evan I. Blatter *September 15, 2006*

(A) Fiscal years end Sept. 30th.
(B) Based on diluted shares. Excludes nonrecurring losses: '01, (13¢); '02, (34¢); discontinued operations: '06, (3¢).
Next earnings report due early Nov.
(C) Dividends historically paid early February, May, August, and November. ■ Dividend reinvestment plan available.
(D) Includes deferred charges and intangibles. '05: $150.0 million, $3.08/sh.
(E) In millions, adjusted for stock split.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	70
Earnings Predictability	60

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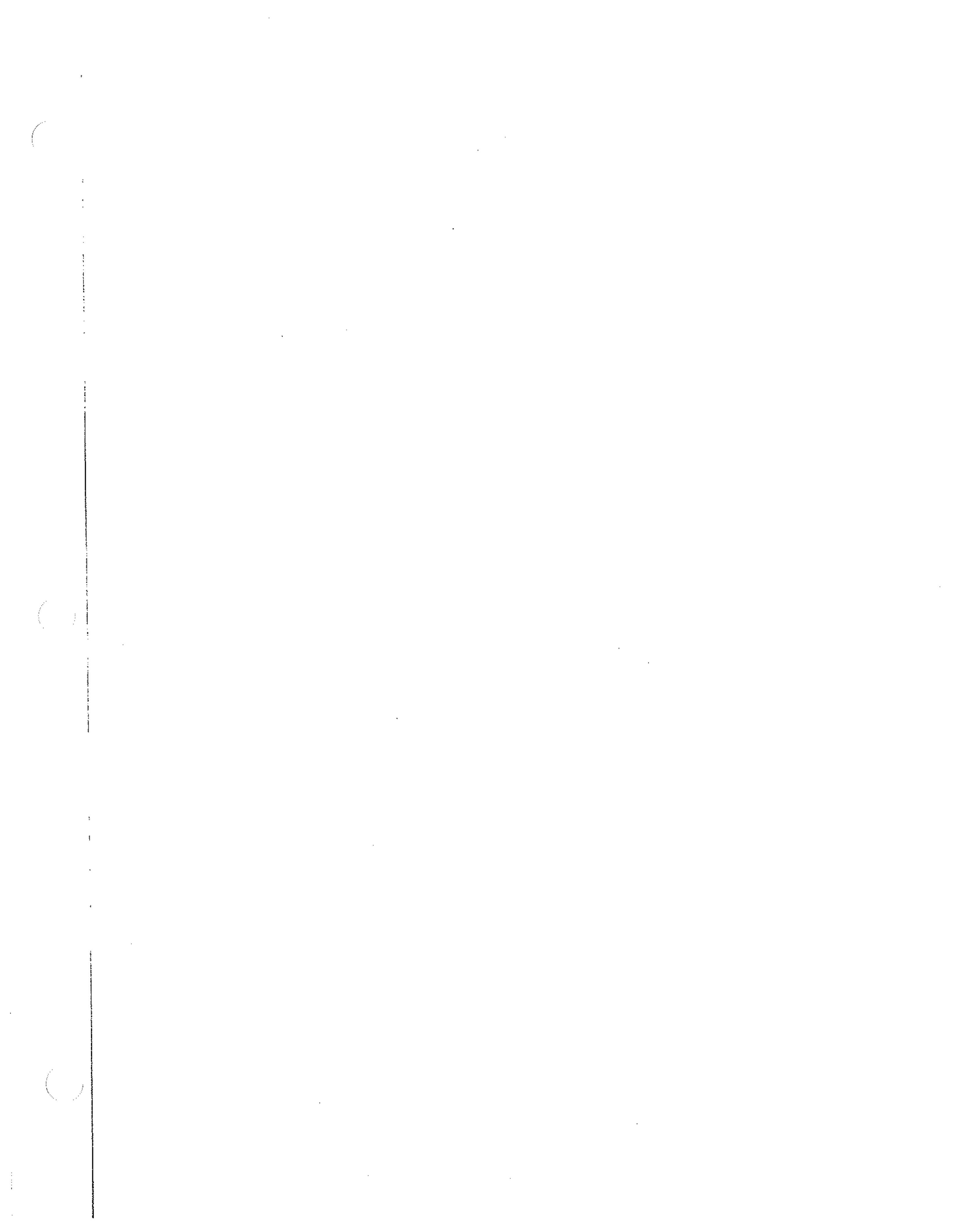
Columbia Gas of Kentucky, Inc.
Investor-provided Capitalization
Actual and Pro Forma at September 30, 2006

	Actual		Pro Forma			Hypothetical	
	Amount Outstanding	Ratios	Pro Forma Adjustments	Amount Outstanding ($000's)	Ratios	Amount Outstanding ($000's)	Ratios
Long Term Debt	$ 42,055,000	30.915%	$ 16,000,000 [2]	58,055,000	38.186%	$ 64,791,243 [3]	42.617%
Common Stock Equity							
Common Stock	23,806,202			23,806,202			
Additional Paid in Capital	4,749,592			4,749,592			
Retained Earnings	57,369,745			57,369,745			
Total Common Equity	85,925,539	63.165%	-	85,925,539	56.518%	79,189,296 [3]	52.087%
Total Permanent Capital	$ 127,980,539	94.080%	$ 16,000,000	$ 143,980,539	94.704%	$ 143,980,539	94.704%
Short Term Debt [1]	$ 8,052,333	5.919%	-	$ 8,052,333	5.296%	$ 8,052,333	5.296%
Total Capital Employed	$ 136,032,872	99.999%	$ 16,000,000	$ 152,032,872	100.000%	$ 152,032,872	100.000%

Notes:
[1] Thirteen month average
[2] Reflects debt issued in November 2006
[3] Reflects hypothetical capitalization using 45% long-term debt and 55% common equity

Source of information: Company provided data



**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 90

The questions in this section refer to the testimony of Paul R. Moul:

With reference to page 24, lines 13-21, and Appendix E, please provide (1) copies of all studies used to make (a) the ex-dividend date adjustment and (b) the quarterly compounding adjustment; and (2) the individual company data used in computing the dividend yield of 4.01%, including details on all adjustments. Please provide the data in both hard copy and electronic formats, with all data and formulas intact.

Response of Columbia Gas of Kentucky:

(1) (a) Please refer to the documents that are attached.

(1) (b) There are no separate work papers for the quarterly compounding adjustment. All data used for this calculation is contained on pages E-6, E-7, E-8, and E-9.

(2) An electronic copy of the work papers for Attachment PRM-7 is attached.

reported accounting earnings and other information, share price will respond. Put another way, dividends speak louder than words under these circumstances.The rationale behind a dividend signaling effect is similar to a capital structure signaling effect, described in Chapter 9.

However, it generally is agreed that the effect is more important for dividends than it is for capital structure. While there are a number of factors that may explain dividends' impact on valuation, many are difficult to test. Most empirical testing has concentrated on the tax effect and on financial signaling. This is not to say that such things as flotation costs, transactions costs, institutional restrictions, and preference for dividends have no effect; only that whatever effect they might have is swamped by the two effects discussed.

EMPIRICAL TESTING AND IMPLICATIONS FOR PAYOUT BEHAVIOR

The testing of whether or not dividends have an effect on share price has taken several forms. Again, the major thrust in orientation has been on the tax effect and on financial signaling. As we will discover, the evidence is far from uniform, which makes generalizations difficult, if not just downright unwise.

EX-DIVIDEND DAY TESTS

One of the mainstays has involved the ex-dividend behavior of common stock prices. As we explain in Chapter 12, companies paying dividends establish an ex-dividend date. Investors buying the stock before that date are entitled to the dividend declared; purchases on or after the ex-dividend date are not entitled to the dividend. In a nontaxable world, the stock should drop in value by the amount of the dividend on the ex-dividend day. If you are a taxable investor, however, and buy the stock before the ex-dividend day, you will need to pay taxes on the dividend. In contrast, if you wait until the ex-dividend day to buy the stock, you will pay no taxes on the dividend, since there is no dividend, and any price movement presumably is subject only to the capital-gains tax. A number of authors reason that if there is a tax effect, owing to capital gains being taxed at a lower rate than dividend income, a stock should decline in price by less than the dividend on the ex-dividend day. Expressed differently, investors would value a dollar of dividends less than they would a dollar of capital gains.

An earlier study of the phenomenon was by Elton and Gruber.[11] In a sample of companies, they found that on average a stock declined by .78 of the dividend

[11] Edwin J. Elton and Martin J. Gruber, "Marginal Stockholder Tax Rates and the Clientele Effect," *Review of Economics and Statistics*, 52 (February 1970), 68–74.

on the ex-dividend date. They interpret this result as consistent with a clientele effect where investors in high tax brackets show a preference for capital gains over dividends, and vice versa.

There have been a number of other studies of share price behavior on the ex-dividend day.[12] In general, the evidence is consistent with the foregoing, namely, that stock prices decline on the ex-dividend day but by less than the amount of the dividend. Many view these findings as consistent with a tax effect where dividends are taxed more heavily than are capital gains, and stock prices reflect this differential. However, others argue that biases in conceptual foundation as well as in methodology negate the ex-dividend day approach to implying tax rates or tax clientele effects.[13] While the evidence is reasonably consistent across studies, its interpretation is not.

DIVIDEND YIELD APPROACH

A second approach to the tax effect question is to study the relationship between dividend yields and stock returns, where other influences on returns are isolated. One of the earlier studies here was by Black and Scholes.[14] In testing a modification of the capital asset pricing model to measure the deviation of a stock's dividend yield from that of the market portfolio, they find the coefficient of the variable to be insignificant. Stocks with high payout ratios did not provide returns significantly different from those with low payout ratios. The authors interpret this finding as consistent with the idea that dividend policy does not matter. Miller and Scholes, in later studying the issue with a new sample, claim that after isolating for information effects, there is no relationship between returns and dividend yields.[15] The differential tax explanation of dividend yield and stock returns has been challenged by others as well.[16]

As we know from Chapter 3, however, many authors have found a positive relationship between expected before-tax returns and dividend yields, holding other things constant. Perhaps the leading investigators here are Litzenberger and

[12]Avner Kalay, "The Ex-Dividend Day Behavior of Stock Prices: A Re-examination of the Clientele Effect," *Journal of Finance*, 37 (September 1982), 1059–70; Kenneth M. Eades, Patrick J. Hess, and E. Han Kim, "On Interpreting Security Returns During the Ex-Dividend Period," *Journal of Financial Economics*, 13 (March 1984), 3–34; Patrick J. Hess, "The Ex-Dividend Day Behavior of Stock Returns: Further Evidence on Tax Effects," *Journal of Finance*, 37 (May 1982), 445–56; James M. Poterba and Lawrence H. Summers, "New Evidence That Taxes Affect the Valuation of Dividends," *Journal of Finance*, 39 (December 1984), 1397–1416; Michael Barclay, "Tax Effects with No Taxes? Further Evidence on the Ex-Dividend Day Behavior of Common Stock Prices," working paper, Stanford University (September 1984); and Costas P. Kaplanis, "Options, Taxes, and Ex-Dividend Day Behavior," *Journal of Finance*, 41 (June 1986), 411–24.

[13]See Kalay, "The Ex-Dividend Day Behavior of Stock Prices"; Jerry Green, "Taxation and the Ex-Dividend Day Behavior of Common Stock Prices" working paper, National Bureau of Economic Research, Cambridge, Mass. (1980); and Hess, "The Ex-Dividend Day Behavior of Stock Returns."

[14]Black and Scholes, "The Effects of Dividend Yield and Dividend Policy on Common Stock Prices and Returns."

[15]Miller and Scholes, "Dividends and Taxes."

[16]See Marshall Blums, "Stock Returns and Dividend Yields: Some More Evidence," *Review of Economics and Statistics*, 62 (November 1980), 567–77.

U.S. Securities and Exchange Commission

Ex-Dividend Dates:
When Are You Entitled to Stock and Cash Dividends

Have you ever bought a stock only to find out later that you were not entitled to the next cash or stock dividend paid by the company? To determine whether you should get cash and most stock dividends, you need to look at two important dates. They are the "record date" or "date of record" and the "ex-dividend date" or "ex-date."

When a company declares a dividend, it sets a record date when you must be on the company's books as a shareholder to receive the dividend. Companies also use this date to determine who is sent proxy statements, financial reports, and other information.

Once the company sets the record date, the stock exchanges or the National Association of Securities Dealers, Inc. fix the ex-dividend date. The ex-dividend date is normally set for stocks **two business days before** the record date. If you purchase a stock on its ex-dividend date or after, you will not receive the next dividend payment. Instead, the seller gets the dividend. If you purchase before the ex-dividend date, you get the dividend.

Here is an example:

Declaration Date	Ex-Dividend Date	Record Date	Payable Date
7/27/2004	8/6/2004	8/10/2004	9/10/2004

On July 27, 2004, Company XYZ declares a dividend payable on September 10, 2004 to its shareholders. XYZ also announces that shareholders of record on the company's books on or before August 10, 2004 are entitled to the dividend. The stock would then go ex-dividend two business days before the record date.

In this example, the record date falls on a Tuesday. Excluding weekends and holidays, the ex-dividend is set two business days before the record date or the opening of the market – in this case on the preceding Friday. This means anyone who bought the stock on Friday or after would not get the dividend. At the same time, those who purchase before the ex-dividend date receive the dividend.

With a significant dividend, the price of a stock may move up by the dollar

amount of the dividend as the ex-dividend date approaches and then fall by that amount after the ex-dividend date. A stock that has gone ex-dividend is marked with an "x" in newspapers on that day.

Sometimes a company pays a dividend in the form of stock rather than cash. The stock dividend may be additional shares in the company or in a subsidiary being spun off. The procedures for stock dividends may be different from cash dividends. The ex-dividend date is set the first business day after the stock dividend is paid (and is also after the record date).

If you sell your stock before the ex-dividend date, you also are selling away your right to the stock dividend. Your sale includes an obligation to deliver any shares acquired as a result of the dividend to the buyer of your shares, since the seller will receive an I.O.U. or "due bill" from his or her broker for the additional shares. Thus, it is important to remember that the day you can sell your shares without being obligated to deliver the additional shares is ***not*** the first business day after the record date, but usually is the first business day after the stock dividend is paid.

If you have questions about specific dividends, you should consult with your financial advisor. You can also get information by going to your library and reading *Standard and Poor's Dividend Record Binder*.

http://www.sec.gov/answers/dividen.htm

We have provided this information as a service to investors. It is neither a legal interpretation nor a statement of SEC policy. If you have questions concerning the meaning or application of a particular law or rule, please consult with an attorney who specializes in securities law.

Modified: 06/21/2004

Monthly Dividend Yields for
Gas Group
for the Twelve Months Ending October 2006

Company	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	12-Month Average	6-Month Average	3-Month Average
AGL RES INC (NYSE:ATG)	4.19%	4.27%	4.17%	4.13%	4.13%	4.22%	4.05%	3.90%	3.82%	4.07%	4.08%	3.98%			
ATMOS ENERGY CORP (NYSE:	4.75%	4.84%	4.84%	4.78%	4.81%	4.79%	4.70%	4.54%	4.42%	4.38%	4.43%	4.20%			
LACLEDE GROUP INC (NYSE:L(	4.66%	4.74%	4.38%	4.26%	4.14%	4.19%	4.26%	4.14%	4.30%	4.40%	4.44%	4.01%			
NEW JERSEY RES (NYSE:NJR)	3.41%	3.44%	3.18%	3.22%	3.19%	3.27%	3.23%	3.08%	2.90%	2.92%	2.92%	2.94%			
NICOR INC (NYSE:GAS)	4.68%	4.73%	4.57%	4.36%	4.70%	4.72%	4.57%	4.48%	4.26%	4.29%	4.35%	4.06%			
NORTHWEST NAT GAS CO (NY	4.03%	4.07%	3.88%	4.04%	3.91%	4.00%	3.97%	3.75%	3.64%	3.62%	3.54%	3.43%			
PIEDMONT NAT GAS INC (NYSI	3.95%	3.81%	3.98%	3.91%	4.01%	3.93%	3.98%	3.95%	3.75%	3.71%	3.80%	3.57%			
SOUTH JERSEY INDS INC (NYS	3.15%	3.09%	3.08%	3.17%	3.31%	3.40%	3.38%	3.29%	3.05%	3.13%	3.01%	2.92%			
WGL HLDGS INC (NYSE:WGL)	4.41%	4.48%	4.28%	4.35%	4.42%	4.61%	4.73%	4.72%	4.52%	4.38%	4.36%	4.18%			
Average	4.14%	4.16%	4.04%	4.02%	4.07%	4.13%	4.10%	3.98%	3.85%	3.88%	3.88%	3.70%	4.00%	3.90%	3.82%

Note: Monthly dividend yields are calculated by dividing the annualized quarterly dividend by the month-end closing stock price adjusted by the fraction of the ex-dividend.

Source of Information: BusinessWeek online
http://ccbn.aol.com Event Calendar - Split/Dividend data provided by FT Interactive Data

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BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 91

The questions in this section refer to the testimony of Paul R. Moul:

With reference to page 29, lines 1-5 and footnote 4, please provide copies of the studies, work papers, and source documents that (1) compare GDP growth of the growth of gas companies, and (2) support the statement on earnings versus GDP growth. Please provide the data in both hard copy and electronic formats, with all data and formulas intact.

Response of *Columbia Gas of Kentucky*:

1) No comparisons were made of GDP growth with growth for the gas companies, because such data is not available extending back to 1929. As stated in Mr. Moul's direct testimony, GDP growth was compared to the growth in pre-tax corporate profits, which is a component of the income side of the GDP.

2) A copy of the historical data is provided on the Excel spreadsheet that is attached.

Growth in U.S. Gross Domestic Product and Corporate Profits
1929 to 2004

Year	GDP ($billion)	Change ($billion)	Growth%	Corporate Profits ($billion)	Change ($billion)	Growth%
1929	103.6			10.8		
1930	91.2	-12.4	-11.97%	7.5	-3.3	-30.56%
1931	76.5	-14.7	-16.12%	2.9	-4.6	-61.33%
1932	58.7	-17.8	-23.27%	-0.2	-3.1	NMF
1933	56.4	-2.3	-3.92%	-0.1	0.1	NMF
1934	66.0	9.6	17.02%	2.5	2.6	NMF
1935	73.3	7.3	11.06%	4.0	1.5	60.00%
1936	83.8	10.5	14.32%	6.2	2.2	55.00%
1937	91.9	8.1	9.67%	7.1	0.9	14.52%
1938	86.1	-5.8	-6.31%	5.0	-2.1	-29.58%
1939	92.2	6.1	7.08%	6.6	1.6	32.00%
1940	101.4	9.2	9.98%	9.8	3.2	48.48%
1941	126.7	25.3	24.95%	15.5	5.7	58.16%
1942	161.9	35.2	27.78%	20.6	5.1	32.90%
1943	198.6	36.7	22.67%	24.9	4.3	20.87%
1944	219.8	21.2	10.67%	24.9	0.0	0.00%
1945	223.1	3.3	1.50%	20.3	-4.6	-18.47%
1946	222.3	-0.8	-0.36%	17.8	-2.5	-12.32%
1947	244.2	21.9	9.85%	23.7	5.9	33.15%
1948	269.2	25.0	10.24%	31.2	7.5	31.65%
1949	267.3	-1.9	-0.71%	29.1	-2.1	-6.73%
1950	293.8	26.5	9.91%	36.0	6.9	23.71%
1951	339.3	45.5	15.49%	41.2	5.2	14.44%
1952	358.3	19.0	5.60%	39.3	-1.9	-4.61%
1953	379.4	21.1	5.89%	39.7	0.4	1.02%
1954	380.4	1.0	0.26%	38.8	-0.9	-2.27%
1955	414.8	34.4	9.04%	49.5	10.7	27.58%
1956	437.5	22.7	5.47%	48.5	-1.0	-2.02%
1957	461.1	23.6	5.39%	48.4	-0.1	-0.21%
1958	467.2	6.1	1.32%	43.5	-4.9	-10.12%
1959	506.6	39.4	8.43%	55.7	12.2	28.05%
1960	526.4	19.8	3.91%	53.8	-1.9	-3.41%
1961	544.7	18.3	3.48%	54.9	1.1	2.04%
1962	585.6	40.9	7.51%	63.3	8.4	15.30%
1963	617.7	32.1	5.48%	69.0	5.7	9.00%
1964	663.6	45.9	7.43%	76.5	7.5	10.87%
1965	719.1	55.5	8.36%	87.5	11.0	14.38%
1966	787.8	68.7	9.55%	93.2	5.7	6.51%
1967	832.6	44.8	5.69%	91.3	-1.9	-2.04%
1968	910.0	77.4	9.30%	98.8	7.5	8.21%
1969	984.6	74.6	8.20%	95.4	-3.4	-3.44%
1970	1038.5	53.9	5.47%	83.6	-11.8	-12.37%
1971	1127.1	88.6	8.53%	98.0	14.4	17.22%
1972	1238.3	111.2	9.87%	112.1	14.1	14.39%
1973	1382.7	144.4	11.66%	125.5	13.4	11.95%
1974	1500.0	117.3	8.48%	115.8	-9.7	-7.73%
1975	1638.3	138.3	9.22%	134.8	19.0	16.41%
1976	1825.3	187.0	11.41%	163.3	28.5	21.14%
1977	2030.9	205.6	11.26%	192.4	29.1	17.82%
1978	2294.7	263.8	12.99%	216.6	24.2	12.58%
1979	2563.3	268.6	11.71%	223.2	6.6	3.05%
1980	2789.5	226.2	8.82%	201.1	-22.1	-9.90%
1981	3128.4	338.9	12.15%	226.1	25.0	12.43%
1982	3255.0	126.6	4.05%	209.7	-16.4	-7.25%
1983	3536.7	281.7	8.65%	264.2	54.5	25.99%
1984	3933.2	396.5	11.21%	318.6	54.4	20.59%
1985	4220.3	287.1	7.30%	330.3	11.7	3.67%
1986	4462.8	242.5	5.75%	319.5	-10.8	-3.27%
1987	4739.5	276.7	6.20%	368.8	49.3	15.43%
1988	5103.8	364.3	7.69%	432.6	63.8	17.30%
1989	5484.4	380.6	7.46%	426.6	-6.0	-1.39%
1990	5803.1	318.7	5.81%	437.8	11.2	2.63%
1991	5995.9	192.8	3.32%	451.2	13.4	3.06%
1992	6337.7	341.8	5.70%	479.3	28.1	6.23%
1993	6657.4	319.7	5.04%	541.9	62.6	13.06%
1994	7072.2	414.8	6.23%	600.3	58.4	10.78%
1995	7397.7	325.5	4.60%	696.7	96.4	16.06%
1996	7816.9	419.2	5.67%	786.2	89.5	12.85%
1997	8304.3	487.4	6.24%	868.5	82.3	10.47%
1998	8747.0	442.7	5.33%	801.6	-66.9	-7.70%
1999	9268.4	521.4	5.96%	851.3	49.7	6.20%
2000	9817.0	548.6	5.92%	817.9	-33.4	-3.92%
2001	10128.0	311.0	3.17%	767.3	-50.6	-6.19%
2002	10487.0	359.0	3.54%	874.6	107.3	13.98%
2003	11004.0	517.0	4.93%	1021.1	146.5	16.75%
2004	11735.0	731.0	6.64%	1181.6	160.5	15.72%
Average			6.77%			8.87%
Average since 1934			7.80%			10.44%

NMF = not meaningful figure

Source: U. S. Department of Commerce, Survey of Current Business

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 92

The questions in this section refer to the testimony of Paul R. Moul:

With reference to pages 29-34, and Attachments PRM-7, PRM-8, and PRM9, please provide the individual company data and copies of the source documents used in developing the historic and forecasted growth rate data for the gas group. Please provide the data in both hard copy and electronic formats, with all data and formulas intact.

Response of Columbia Gas of Kentucky:

An electronic copy of the dividend yields shown on Attachment PRM-7 was provided as an attachment to the response to AG 90 (2). The electronic work papers for Attachment PRM-8 and PRM-9 are attached. The source documents for IBES/First Call, Zacks, and Reuters are attached. The Value Line pages were provided as an Attachment to AG 89.

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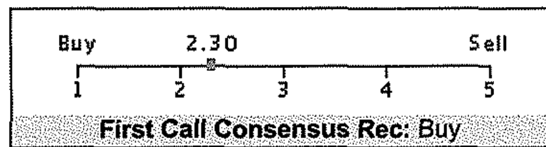
AGL RESOURCES INC (ATG)

Sector: Public Utilities

Industry: Gas Utilities

Last Updated: November 11, 2006



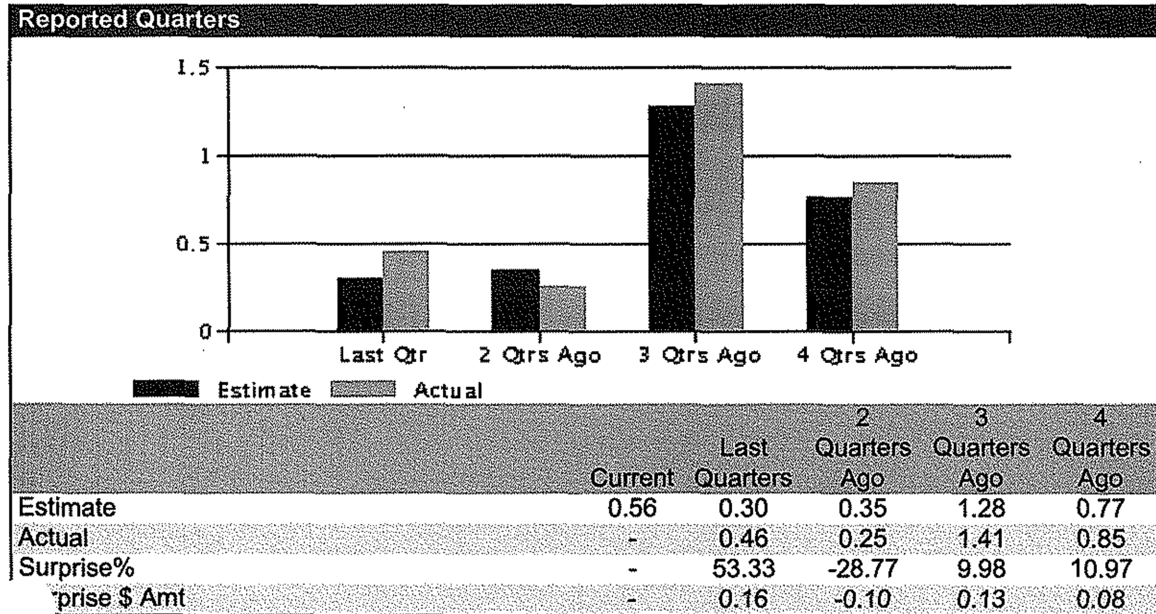
First Call Consensus Rec: Buy

The Analyst Company Sentiment is NEUTRAL
Analyst Sentiment is determined by a quantitative company scoring model that scores company level sentiment based on analyst earnings revisions. The scoring model considers the following factors: analyst experience, magnitude of the revision, proximity of the revision to the actual earnings report date, range of estimates, historic stock performance following a given analyst's prior revisions, and market capitalization of the company.

Overview

Exchange	New York Stock Exchange	5 Year Growth	13.61
52 Week Range	33.74 - 40.00	5 Year Stability	67.49
Current PE	14.34	Annual Dividend	1.48
Beta	0.83	*All prices displayed in local currency	

Reported Quarters



	Current	Last Quarters	2 Quarters Ago	3 Quarters Ago	4 Quarters Ago
Estimate	0.56	0.30	0.35	1.28	0.77
Actual	-	0.46	0.25	1.41	0.85
Surprise%	-	53.33	-28.77	9.98	10.97
Surprise $ Amt	-	0.16	-0.10	0.13	0.08

Consensus EPS Estimates

Period	Report Date	# of Estimates	Mean	High	Low	Median
[illegible]	Dec 06	8	0.56	0.67	0.52	0.54
[illegible]2	Mar 07	4	1.31	1.43	1.20	1.30
Q3	Jun 07	4	0.38	0.41	0.35	0.39
Q4	Sep 07	4	0.32	0.39	0.25	0.32
FY1	Dec 06	10	2.64	2.68	2.57	2.65
FY2	Dec 07	11	2.70	2.83	2.54	2.70
LTG	-	6	4.21	5.00	3.00	4.13

Earnings Momentum

	12/2006	03/2007	06/2007	09/2007
# Estimates Up/Down - 1 Week	0/ 0	0/ 0	0/ 0	0/ 0
# Estimates Up/Down - 1 Month	2/ 5	2/ 1	2/ 0	2/ 1
Current Mean Estimate	0.56	1.31	0.38	0.32
Mean 1 Month Ago	0.66	1.31	0.35	0.31
Mean 3 Months Ago	0.70	1.31	0.37	0.31

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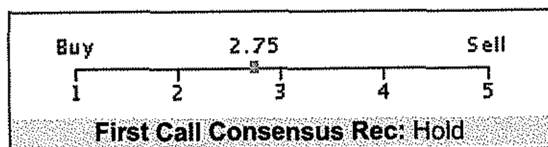
Earnings Estimates

ATMOS ENERGY CORPORATION (ATO)

Sector: Public Utilities

Industry: Gas Utilities

Last Updated: November 11, 2006



First Call Consensus Rec: Hold

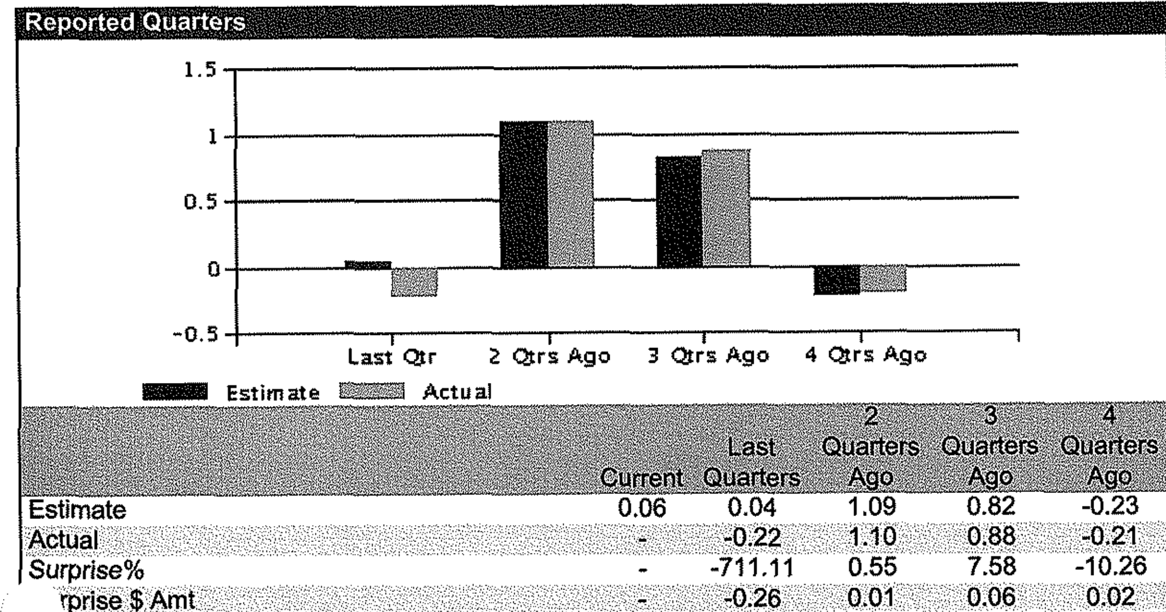
The Analyst Company Sentiment is NEUTRAL

Analyst Sentiment is determined by a quantitative company scoring model that scores company level sentiment based on analyst earnings revisions. The scoring model considers the following factors: analyst experience, magnitude of the revision, proximity of the revision to the actual earnings report date, range of estimates, historic stock performance following a given analyst's prior revisions, and market capitalization of the company.

Overview

Exchange	New York Stock Exchange	5 Year Growth	5.60
52 Week Range	25.55 - 31.79	5 Year Stability	159.12
Current PE	17.53	Annual Dividend	1.28
Beta	0.75		*All prices displayed in local currency

Reported Quarters



	Current	Last Quarters	2 Quarters Ago	3 Quarters Ago	4 Quarters Ago
Estimate	0.06	0.04	1.09	0.82	-0.23
Actual	-	-0.22	1.10	0.88	-0.21
Surprise%	-	-711.11	0.55	7.58	-10.26
rprise $ Amt	-	-0.26	0.01	0.06	0.02

Consensus EPS Estimates						
Period	Report Date	# of Estimates	Mean	High	Low	Median
[illegible]	Sep 06	4	0.06	0.07	0.04	0.06
[illegible]2	Dec 06	5	0.92	0.99	0.88	0.92
Q3	Mar 07	5	1.13	1.25	1.03	1.13
Q4	Jun 07	5	0.01	0.08	-0.09	0.01
FY1	Sep 06	5	1.82	1.83	1.80	1.82
FY2	Sep 07	8	1.96	2.03	1.90	1.96
LTG	-	3	5.17	7.00	3.00	5.50

Earnings Momentum				
	09/2006	12/2006	03/2007	06/2007
# Estimates Up/Down - 1 Week	0/ 0	0/ 0	0/ 1	0/ 1
# Estimates Up/Down - 1 Month	0/ 0	0/ 0	0/ 1	0/ 1
Current Mean Estimate	0.06	0.92	1.13	0.01
Mean 1 Month Ago	0.00	0.92	1.14	0.06
Mean 3 Months Ago	-0.17	0.89	1.15	0.07

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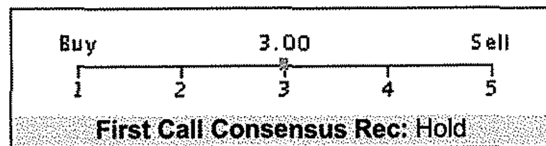
LACLEDE GROUP INC (LG)

Sector: Public Utilities

Industry: Gas Utilities

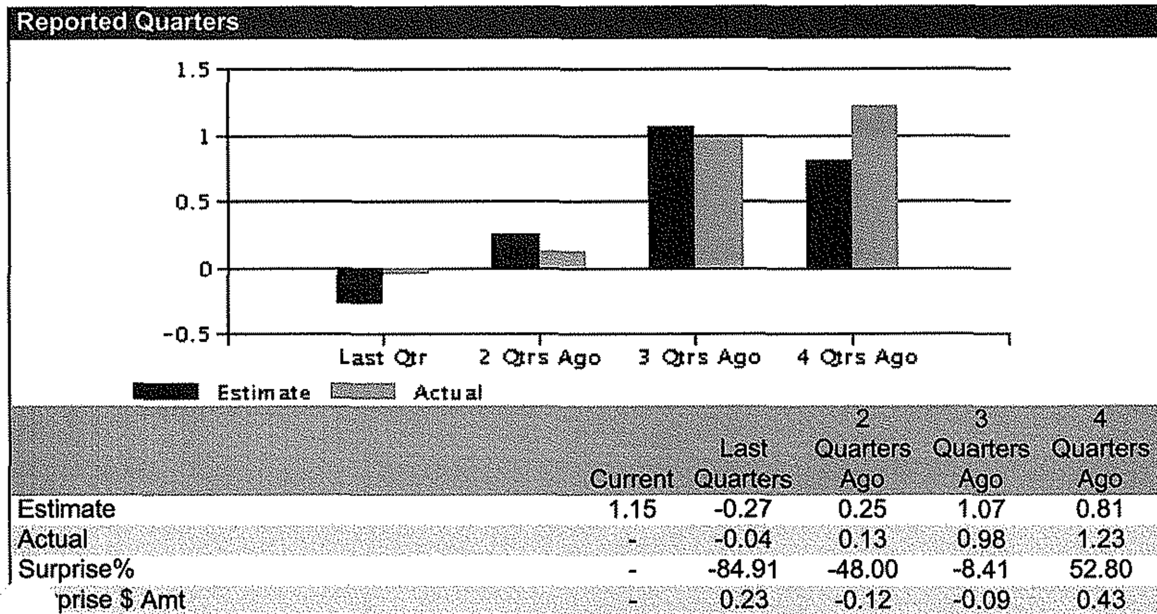
Last Updated: November 11, 2006



The Analyst Company Sentiment is NEUTRAL
Analyst Sentiment is determined by a quantitative company scoring model that scores company level sentiment based on analyst earnings revisions. The scoring model considers the following factors: analyst experience, magnitude of the revision, proximity of the revision to the actual earnings report date, range of estimates, historic stock performance following a given analyst's prior revisions, and market capitalization of the company.

Overview			
Exchange	New York Stock Exchange	5 Year Growth	-5.96
52 Week Range	28.84 - 36.74	5 Year Stability	102.76
Current PE	16.77	Annual Dividend	1.42
Beta	1.09	*All prices displayed in local currency	

Reported Quarters



	Current	Last Quarters	2 Quarters Ago	3 Quarters Ago	4 Quarters Ago
Estimate	1.15	-0.27	0.25	1.07	0.81
Actual	-	-0.04	0.13	0.98	1.23
Surprise%	-	-84.91	-48.00	-8.41	52.80
Surprise $ Amt	-	0.23	-0.12	-0.09	0.43

Consensus EPS Estimates

Period	Report Date	# of Estimates	Mean	High	Low	Median
[illegible]	Dec 06	1	1.15	1.15	1.15	1.15
[illegible]2	Mar 07	1	1.00	1.00	1.00	1.00
Q3	Jun 07	1	0.15	0.15	0.15	0.15
Q4	Sep 07	1	-0.20	-0.20	-0.20	-0.20
FY1	Sep 07	2	2.13	2.15	2.10	2.13
	-					

Earnings Momentum

	12/2006	03/2007	06/2007	09/2007
# Estimates Up/Down - 1 Week	0/ 0	0/ 0	0/ 0	0/ 0
# Estimates Up/Down - 1 Month	0/ 0	0/ 0	0/ 0	0/ 0
Current Mean Estimate	1.15	1.00	0.15	-0.20
Mean 1 Month Ago	1.15	1.00	0.15	-0.20
Mean 3 Months Ago	1.00	1.10	0.27	-0.27

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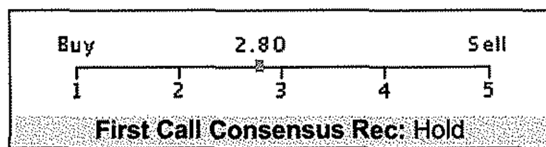
Earnings Estimates

NEW JERSEY RESOURCES CORP (NJR)

Sector: Public Utilities

Industry: Gas Utilities

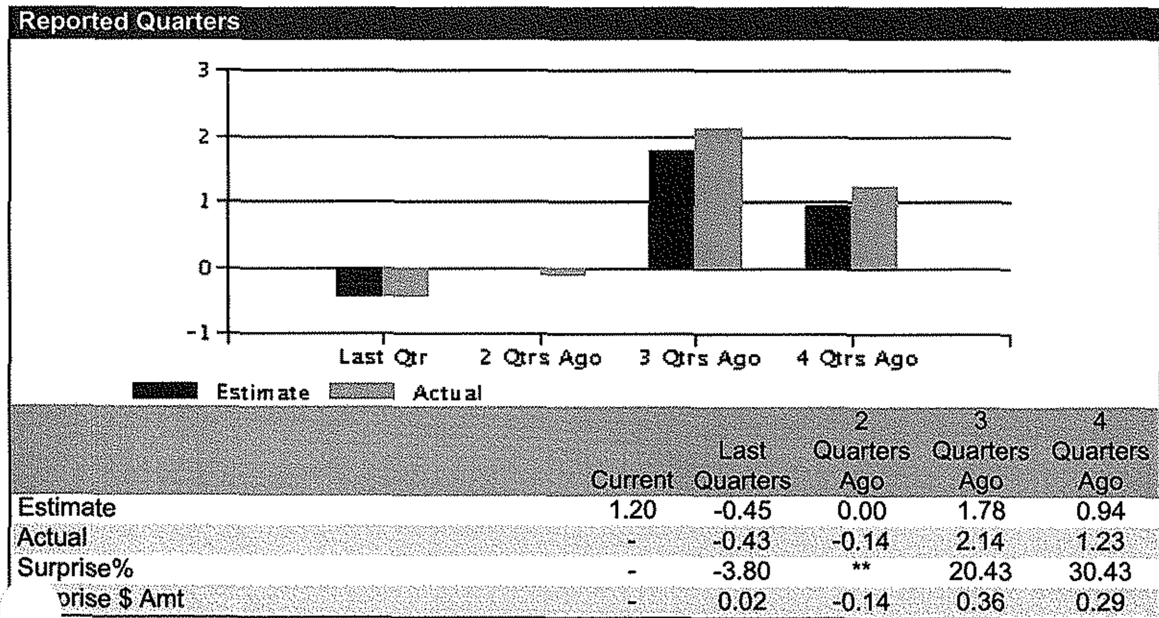
Last Updated: November 11, 2006



The Analyst Company Sentiment is NO RATING
Analyst Sentiment is determined by a quantitative company scoring model that scores company level sentiment based on analyst earnings revisions. The scoring model considers the following factors: analyst experience, magnitude of the revision, proximity of the revision to the actual earnings report date, range of estimates, historic stock performance following a given analyst's prior revisions, and market capitalization of the company.

...erview			
Exchange	New York Stock Exchange	5 Year Growth	16.45
52 Week Range	41.49 - 52.62	5 Year Stability	202.11
Current PE	17.68	Annual Dividend	1.52
Beta	0.81	*All prices displayed in local currency	

Reported Quarters



	Current	Last Quarters	2 Quarters Ago	3 Quarters Ago	4 Quarters Ago
Estimate	1.20	-0.45	0.00	1.78	0.94
Actual	-	-0.43	-0.14	2.14	1.23
Surprise%	-	-3.80	**	20.43	30.43
...prise $ Amt	-	0.02	-0.14	0.36	0.29

Consensus EPS Estimates

Period	Report Date	# of Estimates	Mean	High	Low	Median
[illegible]	Dec 06	2	1.20	1.25	1.15	1.20
Q2	Mar 07	2	2.09	2.18	2.00	2.09
Q3	Jun 07	2	-0.06	0.00	-0.12	-0.06
Q4	Sep 07	2	-0.36	-0.30	-0.41	-0.36
FY1	Sep 07	5	2.89	2.91	2.85	2.90
FY2	Sep 08	3	2.97	2.99	2.95	2.97
LTG	-	4	5.25	7.00	4.00	5.00

Earnings Momentum

	12/2006	03/2007	06/2007	09/2007
# Estimates Up/Down - 1 Week	0/ 0	0/ 0	0/ 0	0/ 0
# Estimates Up/Down - 1 Month	0/ 0	1/ 0	0/ 1	1/ 0
Current Mean Estimate	1.20	2.09	-0.06	-0.36
Mean 1 Month Ago	1.20	2.08	0.00	-0.40
Mean 3 Months Ago	1.20	2.08	0.00	-0.43

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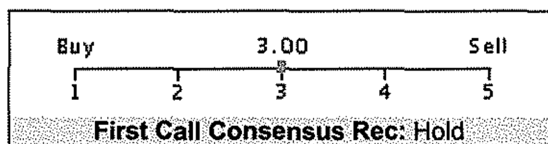
Earnings Estimates

NICOR INC (GAS)

Sector: Public Utilities

Industry: Gas Utilities

Last Updated: November 11, 2006



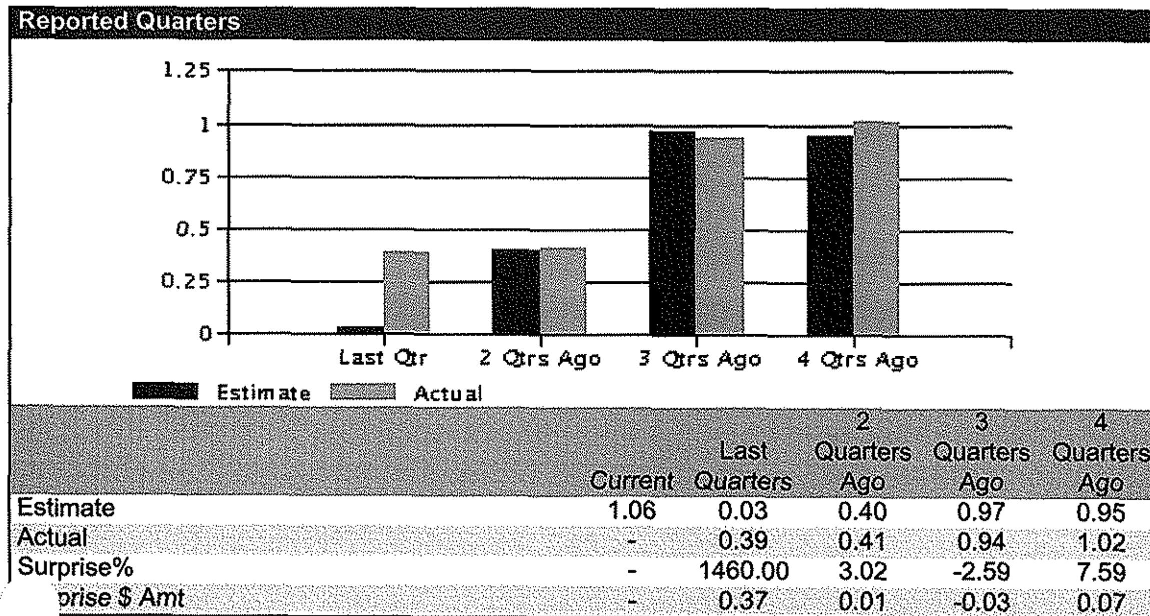
First Call Consensus Rec: Hold

The Analyst Company Sentiment is NEGATIVE

Analyst Sentiment is determined by a quantitative company scoring model that scores company level sentiment based on analyst earnings revisions. The scoring model considers the following factors: analyst experience, magnitude of the revision, proximity of the revision to the actual earnings report date, range of estimates, historic stock performance following a given analyst's prior revisions, and market capitalization of the company.

Overview			
Exchange	New York Stock Exchange	5 Year Growth	-3.44
52 Week Range	38.72 - 48.79	5 Year Stability	48.96
Current PE	18.43	Annual Dividend	1.86
Beta	0.75	*All prices displayed in local currency	

Reported Quarters



	Current	Last Quarters	2 Quarters Ago	3 Quarters Ago	4 Quarters Ago
Estimate	1.06	0.03	0.40	0.97	0.95
Actual	-	0.39	0.41	0.94	1.02
Surprise%	-	1460.00	3.02	-2.59	7.59
Surprise $ Amt	-	0.37	0.01	-0.03	0.07

Consensus EPS Estimates

Period	Report Date	# of Estimates	Mean	High	Low	Median
[illegible]	Dec 06	4	1.06	1.20	0.95	1.04
Q2	Mar 07	1	0.97	0.97	0.97	0.97
Q3	Jun 07	1	0.43	0.43	0.43	0.43
Q4	Sep 07	1	-0.05	-0.05	-0.05	-0.05
FY1	Dec 06	4	2.62	2.72	2.40	2.67
FY2	Dec 07	5	2.62	2.75	2.36	2.75
LTG	-	3	2.67	3.50	1.50	3.00

Earnings Momentum

	12/2006	03/2007	06/2007	09/2007
# Estimates Up/Down - 1 Week	0/ 0	0/ 0	0/ 0	0/ 0
# Estimates Up/Down - 1 Month	1/ 1	0/ 0	0/ 0	0/ 0
Current Mean Estimate	1.06	0.97	0.43	-0.05
Mean 1 Month Ago	1.10	0.97	0.43	-0.05
Mean 3 Months Ago	1.11	0.99	0.40	-0.09

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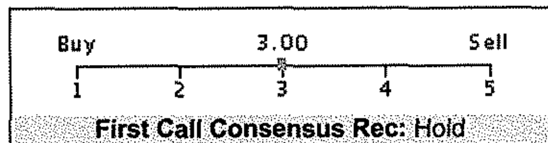
Earnings Estimates

NORTHWEST NAT GAS CO (NWN)

Sector: Public Utilities

Industry: Gas Utilities

Last Updated: November 11, 2006

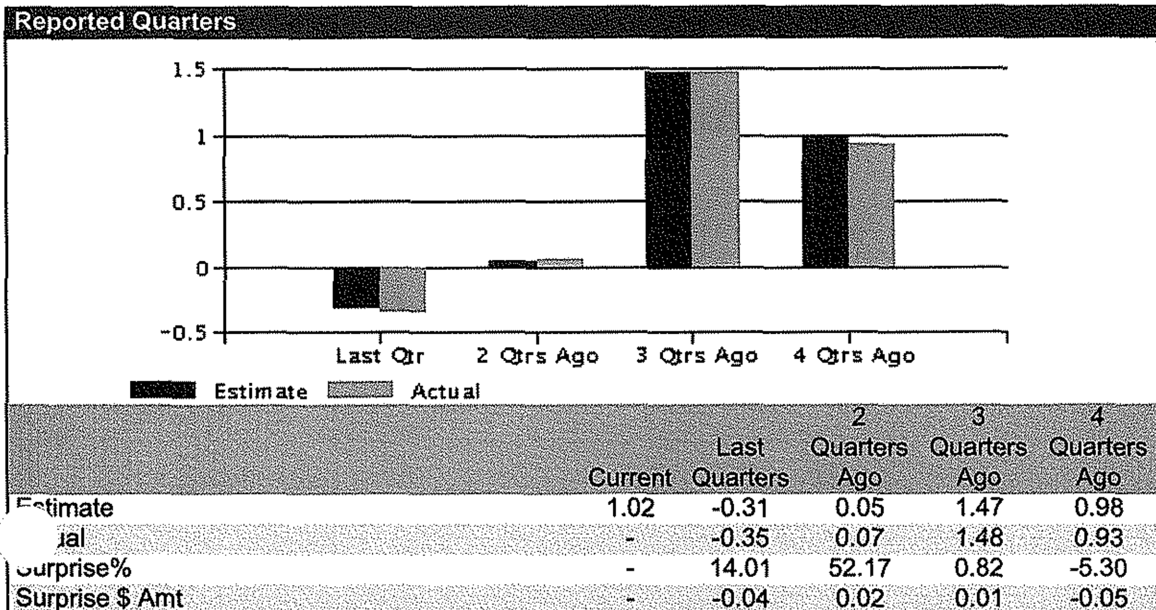


First Call Consensus Rec: Hold

The Analyst Company Sentiment is POSITIVE
Analyst Sentiment is determined by a quantitative company scoring model that scores company level sentiment based on analyst earnings revisions. The scoring model considers the following factors: ·lyst experience, magnitude of the revision, proximity of the revision to the actual earnings report ·, range of estimates, historic stock performance following a given analyst's prior revisions, and market capitalization of the company.

Overview			
Exchange	New York Stock Exchange	5 Year Growth	-14.74
52 Week Range	32.83 - 41.94	5 Year Stability	172.70
Current PE	18.03	Annual Dividend	1.42
Beta	0.92	*All prices displayed in local currency	

Reported Quarters



	Current	Last Quarters	2 Quarters Ago	3 Quarters Ago	4 Quarters Ago
Estimate	1.02	-0.31	0.05	1.47	0.98
Actual	-	-0.35	0.07	1.48	0.93
Surprise%	-	14.01	52.17	0.82	-5.30
Surprise $ Amt	-	-0.04	0.02	0.01	-0.05

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$7 Online Stock Trades and Fast Trade Executions
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Consensus EPS Estimates

Period	Report Date	# of Estimates	Mean	High	Low	Median
[illegible]	Dec 06	5	1.02	1.05	0.97	1.04
[illegible]2	Mar 07	4	1.53	1.58	1.50	1.52
Q3	Jun 07	4	0.07	0.09	0.06	0.07
Q4	Sep 07	4	-0.30	-0.28	-0.30	-0.30
FY1	Dec 06	7	2.21	2.26	2.15	2.24
FY2	Dec 07	5	2.37	2.39	2.35	2.37
LTG	-	4	4.88	6.00	3.50	5.00

Earnings Momentum

	12/2006	03/2007	06/2007	09/2007
# Estimates Up/Down - 1 Week	1/ 1	1/ 1	0/ 0	1/ 1
# Estimates Up/Down - 1 Month	1/ 1	1/ 1	0/ 0	1/ 1
Current Mean Estimate	1.02	1.53	0.07	-0.30
Mean 1 Month Ago	1.02	1.53	0.07	-0.30
Mean 3 Months Ago	1.03	1.53	0.07	-0.29

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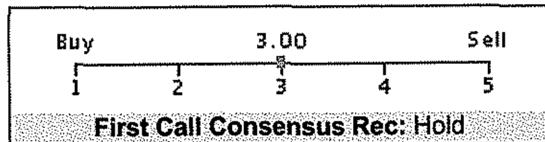
Earnings Estimates

PIEDMONT NATURAL GAS CO (PNY)

Sector: Public Utilities

Industry: Gas Utilities

Last Updated: November 11, 2006

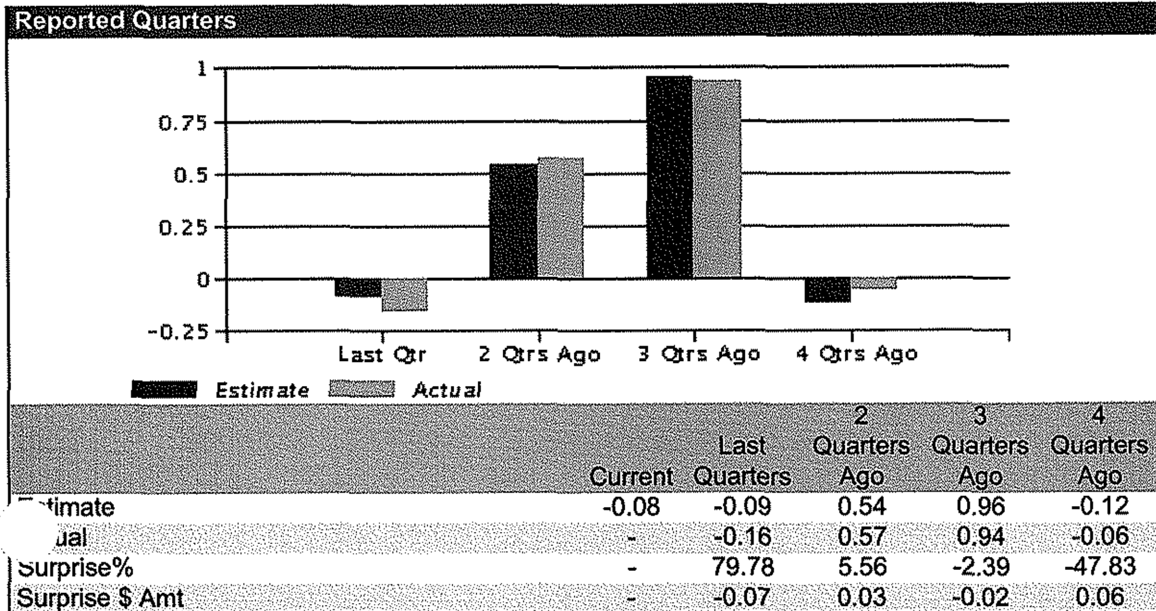


The Analyst Company Sentiment is NEUTRAL

Analyst Sentiment is determined by a quantitative company scoring model that scores company level sentiment based on analyst earnings revisions. The scoring model considers the following factors: lyst experience, magnitude of the revision, proximity of the revision to the actual earnings report ɜ, range of estimates, historic stock performance following a given analyst's prior revisions, and market capitalization of the company.

Overview			
Exchange	New York Stock Exchange	5 Year Growth	8.01
52 Week Range	22.01 - 27.27	5 Year Stability	4.29
Current PE	20.83	Annual Dividend	0.96
Beta	0.81	*All prices displayed in local currency	

Reported Quarters



	Current	Last Quarters	2 Quarters Ago	3 Quarters Ago	4 Quarters Ago
-timate	-0.08	-0.09	0.54	0.96	-0.12
ual	-	-0.16	0.57	0.94	-0.06
surprise%	-	79.78	5.56	-2.39	-47.83
Surprise $ Amt	-	-0.07	0.03	-0.02	0.06

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Consensus EPS Estimates

Period	Report Date	# of Estimates	Mean	High	Low	Median
[illegible]	Oct 06	7	-0.08	-0.05	-0.10	-0.10
Q2	Jan 07	3	0.97	0.98	0.97	0.97
Q3	Apr 07	3	0.59	0.61	0.58	0.59
Q4	Jul 07	3	-0.08	-0.07	-0.08	-0.08
FY1	Oct 06	5	1.29	1.30	1.25	1.30
FY2	Oct 07	8	1.42	1.45	1.38	1.42
LTG	-	2	4.00	4.00	4.00	4.00

Earnings Momentum

	10/2006	01/2007	04/2007	07/2007
# Estimates Up/Down - 1 Week	0/ 0	0/ 0	0/ 0	0/ 0
# Estimates Up/Down - 1 Month	0/ 0	0/ 0	0/ 0	0/ 0
Current Mean Estimate	-0.08	0.97	0.59	-0.08
Mean 1 Month Ago	-0.08	0.97	0.59	-0.08
Mean 3 Months Ago	-0.11	0.98	0.59	-0.08

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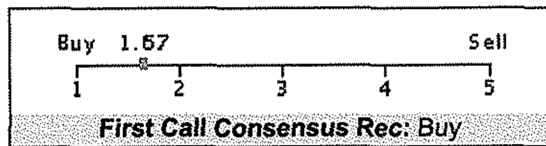
▸ Earnings Estimates

SOUTH JERSEY INDUSTRIES (SJI)

Sector: Public Utilities

Industry: Gas Utilities

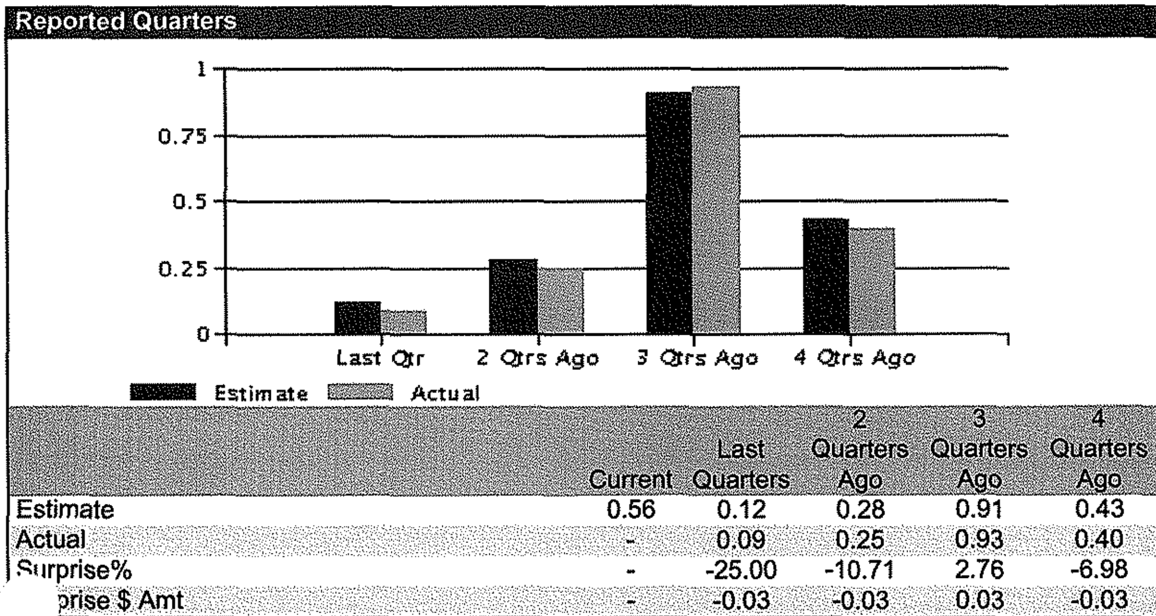
Last Updated: November 11, 2006



The Analyst Company Sentiment is POSITIVE
Analyst Sentiment is determined by a quantitative company scoring model that scores company level sentiment based on analyst earnings revisions. The scoring model considers the following factors: analyst experience, magnitude of the revision, proximity of the revision to the actual earnings report date, range of estimates, historic stock performance following a given analyst's prior revisions, and market capitalization of the company.

Overview			
Exchange	New York Stock Exchange	5 Year Growth	3.03
52 Week Range	25.63 - 31.94	5 Year Stability	213.15
Current PE	17.29	Annual Dividend	0.90
Beta	1.25	*All prices displayed in local currency	

Reported Quarters



	Current	Last Quarters	2 Quarters Ago	3 Quarters Ago	4 Quarters Ago
Estimate	0.56	0.12	0.28	0.91	0.43
Actual	-	0.09	0.25	0.93	0.40
Surprise%	-	-25.00	-10.71	2.76	-6.98
Surprise $ Amt	-	-0.03	-0.03	0.03	-0.03

Consensus EPS Estimates						
Period	Report Date	# of Estimates	Mean	High	Low	Median
[illegible]	Dec 06	2	0.56	0.58	0.53	0.56
Q2	Mar 07	2	0.98	0.98	0.98	0.98
Q3	Jun 07	2	0.28	0.29	0.27	0.28
Q4	Sep 07	2	0.13	0.13	0.12	0.13
FY1	Dec 06	3	1.83	1.85	1.82	1.83
FY2	Dec 07	3	1.97	1.98	1.95	1.97
LTG	-	3	6.00	6.00	6.00	6.00

Earnings Momentum				
	12/2006	03/2007	06/2007	09/2007
# Estimates Up/Down - 1 Week	1/ 0	0/ 0	0/ 1	0/ 1
# Estimates Up/Down - 1 Month	1/ 0	0/ 0	0/ 1	0/ 1
Current Mean Estimate	0.56	0.98	0.28	0.13
Mean 1 Month Ago	0.54	0.98	0.29	0.13
Mean 3 Months Ago	0.54	0.98	0.29	0.13

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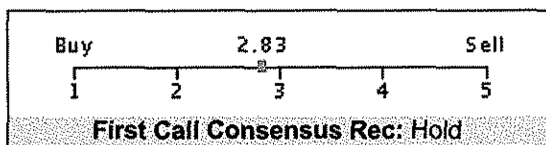
Earnings Estimates

WGL HOLDING INC (WGL)

Sector: Public Utilities

Industry: Gas Utilities

Last Updated: November 11, 2006



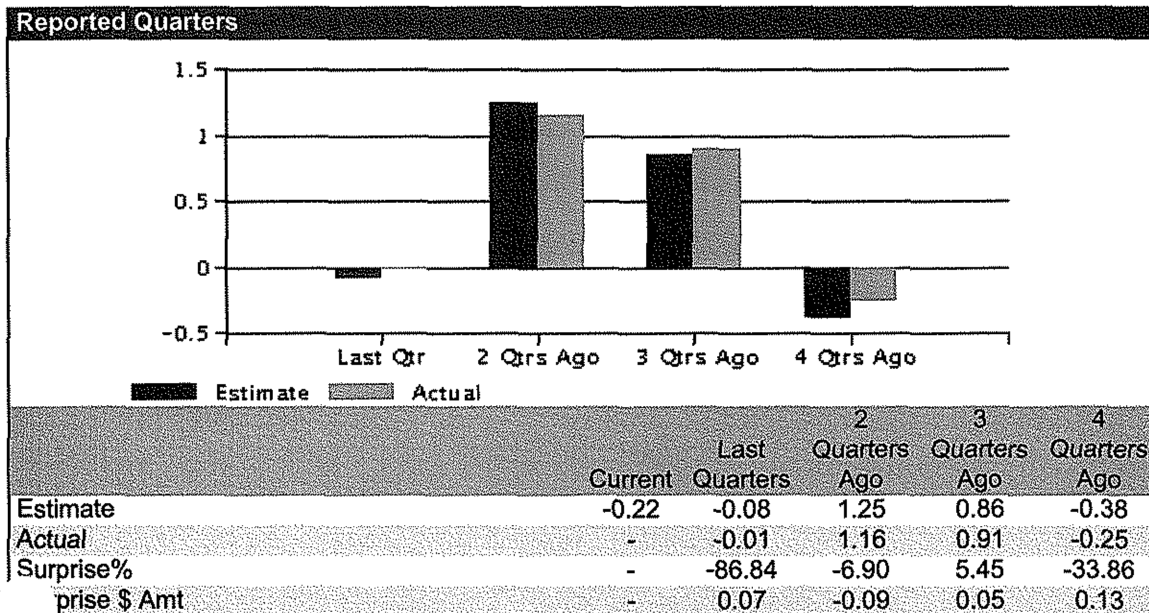
First Call Consensus Rec: Hold

The Analyst Company Sentiment is POSITIVE

Analyst Sentiment is determined by a quantitative company scoring model that scores company level sentiment based on analyst earnings revisions. The scoring model considers the following factors: analyst experience, magnitude of the revision, proximity of the revision to the actual earnings report date, range of estimates, historic stock performance following a given analyst's prior revisions, and market capitalization of the company.

Overview			
Exchange	New York Stock Exchange	5 Year Growth	2.76
52 Week Range	27.04 - 33.02	5 Year Stability	16.95
Current PE	17.48	Annual Dividend	1.35
Beta	0.93	*All prices displayed in local currency	

Reported Quarters



	Current	Last Quarters	2 Quarters Ago	3 Quarters Ago	4 Quarters Ago
Estimate	-0.22	-0.08	1.25	0.86	-0.38
Actual	-	-0.01	1.16	0.91	-0.25
Surprise%	-	-86.84	-6.90	5.45	-33.86
prise $ Amt	-	0.07	-0.09	0.05	0.13

Consensus EPS Estimates

Period	Report Date	# of Estimates	Mean	High	Low	Median
[illegible]	Sep 06	6	-0.22	-0.19	-0.26	-0.22
[illegible]	Dec 06	2	0.94	0.95	0.93	0.94
Q3	Mar 07	2	1.21	1.21	1.20	1.21
Q4	Jun 07	2	-0.02	-0.02	-0.02	-0.02
FY1	Sep 06	5	1.84	1.88	1.80	1.85
FY2	Sep 07	5	1.94	1.98	1.90	1.93
LTG	-	4	3.50	4.00	3.00	3.50

Earnings Momentum

	09/2006	12/2006	03/2007	06/2007
# Estimates Up/Down - 1 Week	0/ 0	0/ 0	0/ 0	0/ 0
# Estimates Up/Down - 1 Month	0/ 0	0/ 0	0/ 0	0/ 0
Current Mean Estimate	-0.22	0.94	1.21	-0.02
Mean 1 Month Ago	-0.22	0.94	1.21	-0.02
Mean 3 Months Ago	-0.22	0.93	1.22	-0.06

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AGL RES INC (NYSE)

Scottrade $7 Online Stock Trades

ATG	37.93	▲0.02	(0.05%)	Vol. 107,900	10:53 CST

AGL Resources principal business is the distribution of natural gas to customers in central, northwest, northeast and southeast Georgia and the Chattanooga, Tennessee area through its natural gas distribution subsidiary. AGL's major service area is the ten county metropolitan Atlanta area.

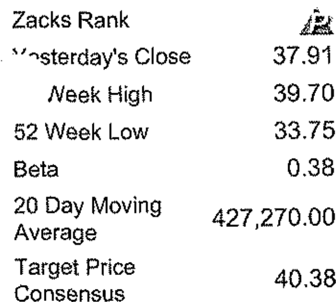
General Information

AGL RESOURCES
Ten Peachtree Place NE
Atlanta, GA 30309
Phone: 404 584-4000
Fax: 404 584-3580
Web: www.aglresources.com
Email: scave@aglresources.com

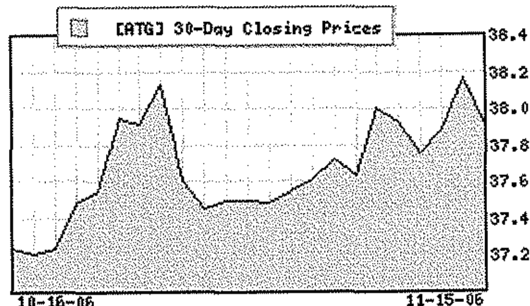
Industry	UTIL-GAS DISTR
Sector:	Utilities

Fiscal Year End	December
Last Reported Quarter	09/30/06
Next EPS Date	01/25/2007

Price and Volume Information



Zacks Rank	
Yesterday's Close	37.91
Week High	39.70
52 Week Low	33.75
Beta	0.38
20 Day Moving Average	427,270.00
Target Price Consensus	40.38



% Price Change

4 Week	1.72
12 Week	6.46
YTD	8.82

% Price Change Relative to S&P 500

4 Week	0.59
12 Week	-0.22
YTD	-1.97

Share Information

Shares Outstanding (millions)	77.88
Market Capitalization (millions)	2,950.06
Short Ratio	5.85
Last Split Date	12/04/1995

Dividend Information

Dividend Yield	3.91%
Annual Dividend	$1.48
Payout Ratio	0.50
Change in Payout Ratio	0.00
Last Dividend Payout / Amount	08/16/2006 / $0.37

EPS Information

Current Quarter EPS Consensus Estimate	0.61
Current Year EPS Consensus Estimate	2.66
Estimated Long-Term EPS Growth Rate	4.50
Next EPS Report Date	01/25/2007

Consensus Recommendations

Current (1=Strong Buy, 5=Strong Sell)	2.38
30 Days Ago	2.38
60 Days Ago	2.38
90 Days Ago	2.38

Fundamental Ratios

P/E		**EPS Growth**		**Sales Growth**	
Current FY Estimate:	14.25	vs. Previous Year	142.11%	vs. Previous Year	10.43%
ailing 12 Months:	12.75	vs. Previous Quarter	84.00%	vs. Previous Quarter:	-0.46%
.G Ratio	3.17				

Price Ratios		**ROE**		**ROA**	
Price/Book	1.87	09/30/06	14.81	09/30/06	3.91
Price/Cash Flow	9.02	06/30/06	13.75	06/30/06	3.52
Price / Sales	1.01	03/31/06	14.35	03/31/06	3.66

Current Ratio		**Quick Ratio**		**Operating Margin**	
09/30/06	1.15	09/30/06	0.67	09/30/06	7.94
06/30/06	1.12	06/30/06	0.64	06/30/06	7.32
03/31/06	1.00	03/31/06	0.70	03/31/06	7.51

Net Margin		**Pre-Tax Margin**		**Book Value**	
09/30/06	12.72	09/30/06	12.72	09/30/06	20.30
06/30/06	11.75	06/30/06	11.75	06/30/06	20.18
03/31/06	12.01	03/31/06	12.01	03/31/06	20.33

Inventory Turnover		**Debt-to-Equity**		**Debt to Captial**	
09/30/06	3.07	09/30/06	1.03	09/30/06	51.38
06/30/06	3.23	06/30/06	1.04	06/30/06	51.44
03/31/06	3.65	03/31/06	0.92	03/31/06	48.47

.com Quotes and Research

ATMOS ENERGY CORP (NYSE)

Scottrade $7 Online Stock Trades

ATO	32.61	▲0.03	(0.09%)	Vol. 45,300	10:51 CST

Atmos Energy Corporation distributes and sells natural gas to residential, commercial, industrial, agricultural and other customers. Atmos operates through five divisions in cities, towns and communities in service areas located in Colorado, Georgia, Illinois, Iowa, Kansas, Kentucky, Louisiana, Missouri, South Carolina, Tennessee, Texas and Virginia. The Company has entered into an agreement to sell all of its natural gas utility operations in South Carolina. The Company also transports natural gas for others through its distribution system.

General Information

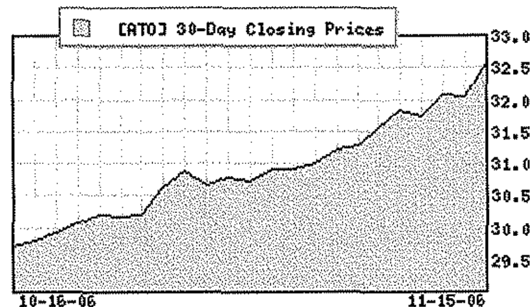
ATMOS ENERGY CP
Three Lincoln Centre, 5430 Lbj Freeway
Suite 1800
Dallas, TX 75240
Phone: 972 934-9227
Fax: -
Web: www.atmosenergy.com
Email: InvestorRelations@atmosenergy.com

Industry	UTIL-GAS DISTR
Sector:	Utilities

Fiscal Year End	September
Last Reported Quarter	09/30/06
Next EPS Date	02/06/2007

Price and Volume Information

...ks Rank	
Yesterday's Close	32.58
52 Week High	32.08
52 Week Low	25.92
Beta	0.33
20 Day Moving Average	220,000.00
Target Price Consensus	33.3



% Price Change	
4 Week	7.94
12 Week	11.39
YTD	22.63

% Price Change Relative to S&P 500	
4 Week	6.74
12 Week	4.40
YTD	9.68

Share Information	
Shares Outstanding (millions)	81.60
Market Capitalization (millions)	2,617.60
Short Ratio	6.75
Last Split Date	05/17/1994

Dividend Information	
Dividend Yield	3.93%
Annual Dividend	$1.26
Payout Ratio	0.56
Change in Payout Ratio	0.00
Last Dividend Payout / Amount	08/23/2006 / $0.31

EPS Information	
...rent Quarter EPS Consensus Estimate	0.94
...ent Year EPS Consensus Estimate	1.96
Estimated Long-Term EPS Growth Rate	5.50
Next EPS Report Date	02/06/2007

Consensus Recommendations	
Current (1=Strong Buy, 5=Strong Sell)	2.57
30 Days Ago	2.57
60 Days Ago	2.50
90 Days Ago	2.50

Fundamental Ratios

P/E		EPS Growth		Sales Growth	
~~rent FY Estimate:	16.38	vs. Previous Year	219.05%	vs. Previous Year	-3.30%
..ing 12 Months:	14.13	vs. Previous Quarter	525.00%	vs. Previous Quarter:	12.54%
PEG Ratio	2.98				
Price Ratios		**ROE**		**ROA**	
Price/Book	1.56	09/30/06	11.00	09/30/06	3.02
Price/Cash Flow	8.22	06/30/06	8.84	06/30/06	2.45
Price / Sales	0.43	03/31/06	8.99	03/31/06	2.53
Current Ratio		**Quick Ratio**		**Operating Margin**	
09/30/06	-	09/30/06	-	09/30/06	2.98
06/30/06	1.03	06/30/06	0.60	06/30/06	2.36
03/31/06	1.10	03/31/06	0.78	03/31/06	2.37
Net Margin		**Pre-Tax Margin**		**Book Value**	
09/30/06	-	09/30/06	-	09/30/06	-
06/30/06	3.25	06/30/06	3.25	06/30/06	20.51
03/31/06	3.82	03/31/06	3.82	03/31/06	21.08
Inventory Turnover		**Debt-to-Equity**		**Debt to Captial**	
09/30/06	-	09/30/06	-	09/30/06	-
06/30/06	10.53	06/30/06	1.31	06/30/06	56.71
03/31/06	11.18	03/31/06	1.28	03/31/06	56.11

.com Quotes and Research

LACLEDE GROUP INC (NYSE)

Scottrade $7 Online Stock Trades

LG 37.01 ▲0.06 (0.16%) Vol. 9,000 10:53 CST

The Laclede Group, Inc. is a public utility engaged in the retail distribution and transportation of natural gas. The Company, which is subject to the jurisdiction of the Missouri Public Service Commission, serves the City of St. Louis, St. Louis County, the City of St. Charles, St. Charles County, the town of Arnold, and parts of Franklin, Jefferson, St. Francois, Ste. Genevieve, Iron, Madison and Butler Counties, all in Missouri.

General Information

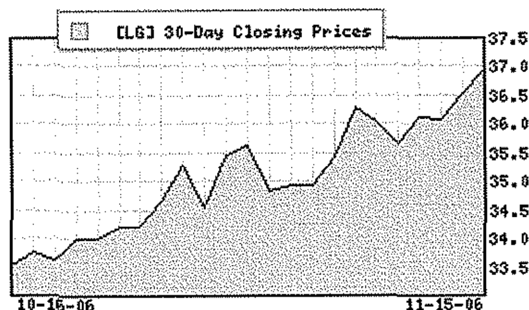
LACLEDE GRP INC
720 Olive Street
St. Louis, MO 63101
Phone: 314-342-0500
Fax: -
Web: www.thelacledegroup.com
Email: investorservices@lacledegas.com

Industry	UTIL-GAS DISTR
Sector:	Utilities

Fiscal Year End	September
Last Reported Quarter	09/30/06
Next EPS Date	01/25/2007

Price and Volume Information

Zacks Rank	
terday's Close	36.95
Week High	36.30
52 Week Low	29.02
Beta	0.48
20 Day Moving Average	79,160.00
Target Price Consensus	N/A



% Price Change	
4 Week	7.61
12 Week	12.90
YTD	23.49

% Price Change Relative to S&P 500	
4 Week	6.41
12 Week	5.81
YTD	11.75

Share Information	
Shares Outstanding (millions)	21.36
Market Capitalization (millions)	770.35
Short Ratio	17.04
Last Split Date	03/08/1994

Dividend Information	
Dividend Yield	3.94%
Annual Dividend	$1.42
Payout Ratio	0.60
Change in Payout Ratio	0.00
Last Dividend Payout / Amount	09/07/2006 / $0.35

EPS Information	
Current Quarter EPS Consensus Estimate	N/A
Current Year EPS Consensus Estimate	2.13
nated Long-Term EPS Growth Rate	-
Next EPS Report Date	01/25/2007

Consensus Recommendations	
Current (1=Strong Buy, 5=Strong Sell)	3.00
30 Days Ago	3.00
60 Days Ago	3.00
90 Days Ago	3.00

Fundamental Ratios

P/E		EPS Growth		Sales Growth	
Current FY Estimate:	16.91	vs. Previous Year	83.33%	vs. Previous Year	0.87%
'ing 12 Months:	15.22	vs. Previous Quarter	-130.77%	vs. Previous Quarter:	-18.62%
_G Ratio	-				

Price Ratios		ROE		ROA	
Price/Book	1.89	09/30/06	12.53	09/30/06	3.29
Price/Cash Flow	11.42	06/30/06	11.74	06/30/06	3.09
Price / Sales	0.39	03/31/06	12.78	03/31/06	3.43

Current Ratio		Quick Ratio		Operating Margin	
09/30/06	-	09/30/06	-	09/30/06	2.53
06/30/06	1.15	06/30/06	0.88	06/30/06	2.32
03/31/06	1.01	03/31/06	0.88	03/31/06	2.51

Net Margin		Pre-Tax Margin		Book Value	
09/30/06	-	09/30/06	-	09/30/06	-
06/30/06	3.34	06/30/06	3.34	06/30/06	19.08
03/31/06	3.63	03/31/06	3.63	03/31/06	19.28

Inventory Turnover		Debt-to-Equity		Debt to Captial	
09/30/06	-	09/30/06	-	09/30/06	-
06/30/06	13.28	06/30/06	0.97	06/30/06	49.24
03/31/06	13.19	03/31/06	0.83	03/31/06	45.30

.com Quotes and Research

NEW JERSEY RES (NYSE)

Scottrade $7 Online Stock Trades

NJR 52.55 N/A (N/A%) Vol. 24,200 10:55 CST

NJ RESOURCES is an exempt energy svcs holding company providing retail & wholesale natural gas & related energy services to customers from the Gulf Coast to New England. Subsidiaries include: (1) N J Natural Gas Co, a natural gas distribution company that provides regulated energy & appliance services to residential, commercial & industrial customers in central & northern N J. (2) NJR Energy Holdings Corp formerly NJR Energy Svcs Corp & (3) NJR Development Corp, a sub-holding company of NJR, which includes the Company's remaining unregulated operating subsidiaries.

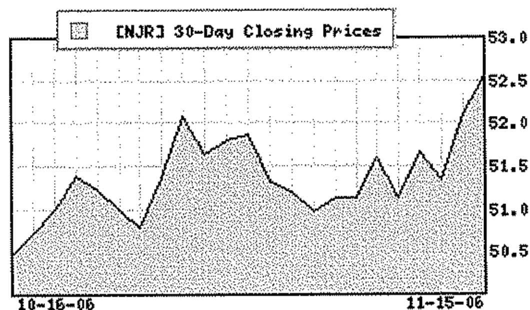
General Information

NJ RESOURCES
1415 Wyckoff Road
Wall, NJ 07719
Phone: 732 938-1480
Fax: -
Web: www2.njresources.com
Email: investcont@njresources.com

Industry	UTIL-GAS DISTR
Sector:	Utilities
Fiscal Year End	September
Last Reported Quarter	09/30/06
Next EPS Date	02/05/2007

Price and Volume Information

ks Rank	
terday's Close	52.55
52 Week High	52.08
52 Week Low	41.77
Beta	0.06
20 Day Moving Average	121,415.00
Target Price Consensus	46.5



% Price Change

4 Week	1.70
12 Week	5.57
YTD	22.53

% Price Change Relative to S&P 500

4 Week	0.57
12 Week	-1.05
YTD	11.50

Share Information

Shares Outstanding (millions)	28.08
Market Capitalization (millions)	1,441.35
Short Ratio	13.78
Last Split Date	03/04/2002

Dividend Information

Dividend Yield	2.81%
Annual Dividend	$1.44
Payout Ratio	0.51
Change in Payout Ratio	0.00
Last Dividend Payout / Amount	09/13/2006 / $0.36

EPS Information

Current Quarter EPS Consensus Estimate	1.20
nt Year EPS Consensus Estimate	2.89
imated Long-Term EPS Growth Rate	6.00
Next EPS Report Date	02/05/2007

Consensus Recommendations

Current (1=Strong Buy, 5=Strong Sell)	2.33
30 Days Ago	2.33
60 Days Ago	2.33
90 Days Ago	2.33

Fundamental Ratios

P/E		EPS Growth		Sales Growth	
~ent FY Estimate:	17.78	vs. Previous Year	-152.94%	vs. Previous Year	-21.96%
..ing 12 Months:	18.33	vs. Previous Quarter	-207.14%	vs. Previous Quarter:	-0.30%
PEG Ratio	2.96				
Price Ratios		**ROE**		**ROA**	
Price/Book	2.42	09/30/06	13.54	09/30/06	3.57
Price/Cash Flow	12.87	06/30/06	15.73	06/30/06	3.88
Price / Sales	0.44	03/31/06	17.41	03/31/06	4.28
Current Ratio		**Quick Ratio**		**Operating Margin**	
09/30/06	-	09/30/06	-	09/30/06	2.38
06/30/06	1.15	06/30/06	0.54	06/30/06	2.48
03/31/06	1.24	03/31/06	0.83	03/31/06	2.64
Net Margin		**Pre-Tax Margin**		**Book Value**	
09/30/06	-	09/30/06	-	09/30/06	-
06/30/06	3.97	06/30/06	3.97	06/30/06	21.25
03/31/06	4.23	03/31/06	4.23	03/31/06	22.36
Inventory Turnover		**Debt-to-Equity**		**Debt to Captial**	
09/30/06	-	09/30/06	-	09/30/06	-
06/30/06	12.61	06/30/06	0.56	06/30/06	35.92
03/31/06	16.01	03/31/06	0.54	03/31/06	35.13

.com Quotes and Research

NICOR INC (NYSE)

Scottrade $7 Online Stock Trades

GAS 49.36 ▲0.05 (0.10%) Vol. 51,200 10:57 CST

NICOR Inc. is a holding company. Its principal subsidiaries are Northern Illinois Gas Company, one of the nation's largest distributors of natural gas, and Tropical Shipping, one of the leading transporters of containerized freight in the Caribbean. Gas distribution is Nicor's primary business, representing the majority of consolidated operating income and assets. Nicor also owns several energy-related subsidiaries and is a partner in Nicor Energy, a provider of unregulated energy products and services.

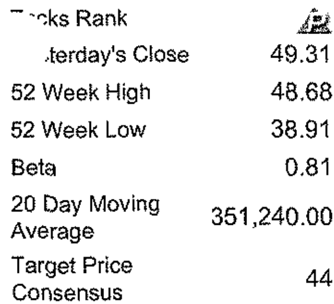
General Information

NICOR INC
1844 Ferry Road
Naperville, IL 60563-9600
Phone: 630 305-9500
Fax: 630 983-9328
Web: www.nicor.com
Email: None

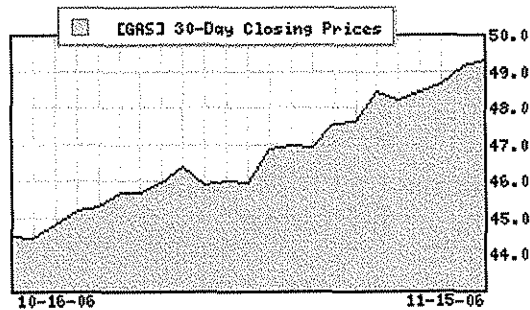
Industry	UTIL-GAS DISTR
Sector:	Utilities

Fiscal Year End	December
Last Reported Quarter	09/30/06
Next EPS Date	02/23/2007

Price and Volume Information



Zacks Rank	
Yesterday's Close	49.31
52 Week High	48.68
52 Week Low	38.91
Beta	0.81
20 Day Moving Average	351,240.00
Target Price Consensus	44



% Price Change

4 Week	9.37
12 Week	12.45
YTD	23.84

% Price Change Relative to S&P 500

4 Week	8.15
12 Week	5.39
YTD	11.41

Share Information

Shares Outstanding (millions)	44.54
Market Capitalization (millions)	2,168.06
Short Ratio	19.47
Last Split Date	04/27/1993

Dividend Information

Dividend Yield	3.82%
Annual Dividend	$1.86
Payout Ratio	0.70
Change in Payout Ratio	0.00
Last Dividend Payout / Amount	09/27/2006 / $0.47

EPS Information

Current Quarter EPS Consensus Estimate	1.02
Current Year EPS Consensus Estimate	2.64
Estimated Long-Term EPS Growth Rate	2.50
Next EPS Report Date	02/23/2007

Consensus Recommendations

Current (1=Strong Buy, 5=Strong Sell)	3.00
30 Days Ago	3.00
60 Days Ago	3.00
90 Days Ago	3.00

Fundamental Ratios

P/E		EPS Growth		Sales Growth	
~~rent FY Estimate:	18.46	vs. Previous Year	566.67%	vs. Previous Year	4.49%
.ling 12 Months:	18.37	vs. Previous Quarter	-31.71%	vs. Previous Quarter:	-22.20%
PEG Ratio	7.39				
Price Ratios		**ROE**		**ROA**	
Price/Book	2.62	09/30/06	14.21	09/30/06	2.95
Price/Cash Flow	7.86	06/30/06	12.56	06/30/06	2.55
Price / Sales	0.62	03/31/06	12.36	03/31/06	2.49
Current Ratio		**Quick Ratio**		**Operating Margin**	
09/30/06	0.69	09/30/06	0.49	09/30/06	3.38
06/30/06	0.71	06/30/06	0.67	06/30/06	2.95
03/31/06	0.77	03/31/06	0.75	03/31/06	2.84
Net Margin		**Pre-Tax Margin**		**Book Value**	
09/30/06	4.52	09/30/06	4.52	09/30/06	18.60
06/30/06	3.65	06/30/06	3.65	06/30/06	18.66
03/31/06	4.72	03/31/06	4.72	03/31/06	18.97
Inventory Turnover		**Debt-to-Equity**		**Debt to Captial**	
09/30/06	21.86	09/30/06	0.55	09/30/06	35.67
06/30/06	16.93	06/30/06	0.57	06/30/06	36.22
03/31/06	16.33	03/31/06	0.57	03/31/06	36.42

Z .com Quotes and Research

NORTHWEST NAT GAS CO (NYSE)

Scottrade $7 Online Stock Trades

NWN 41.07 ▲0.17 (0.42%) Vol. 27,100 10:57 CST

NW Natural is principally engaged in the distribution of natural gas.The Oregon Public Utility Commission (OPUC) has allocated to NW Natural as its exclusive service area a major portion of western Oregon, including the Portland metropolitan area, most of the fertile Willamette Valley and the coastal area from Astoria to Coos Bay. NW Natural also holds certificates from the Washington Utilities and Transportation Commission (WUTC) granting it exclusive rights to serve portions of three Washington counties bordering the Columbia River.

General Information

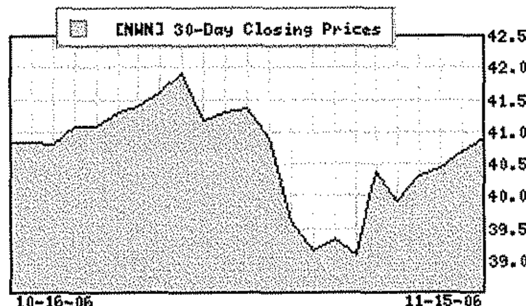
NORTHWEST NAT G
220 N.W. Second Avenue
Portland, OR 97209
Phone: 503 226-4211
Fax: 503 273-4824
Web: www.nwnatural.com
Email: investorinformation@nwnatural.com

Industry	UTIL-GAS DISTR
Sector:	Utilities

Fiscal Year End	December
Last Reported Quarter	09/30/06
Next EPS Date	02/15/2007

Price and Volume Information

ks Rank	
terday's Close	40.90
52 Week High	41.93
52 Week Low	33.27
Beta	0.14
20 Day Moving Average	118,250.00
Target Price Consensus	41.33



% Price Change		% Price Change Relative to S&P 500	
4 Week	-1.00	4 Week	-2.10
12 Week	6.25	12 Week	-0.41
YTD	18.29	YTD	6.64

Share Information		Dividend Information	
Shares Outstanding (millions)	27.55	Dividend Yield	3.51%
Market Capitalization (millions)	1,113.77	Annual Dividend	$1.42
		Payout Ratio	0.65
Short Ratio	13.54	Change in Payout Ratio	0.00
Last Split Date	09/09/1996	Last Dividend Payout / Amount	10/27/2006 / $0.35

EPS Information		Consensus Recommendations	
Current Quarter EPS Consensus Estimate	1.02	Current (1=Strong Buy, 5=Strong Sell)	2.86
ent Year EPS Consensus Estimate	2.22	30 Days Ago	2.57
mated Long-Term EPS Growth Rate	4.90	60 Days Ago	2.57
Next EPS Report Date	02/15/2007	90 Days Ago	2.57

~ndamental Ratios

		EPS Growth		Sales Growth	
Current FY Estimate:	18.22	vs. Previous Year	-12.90%	vs. Previous Year	158.61%
Trailing 12 Months:	18.98	vs. Previous Quarter	-600.00%	vs. Previous Quarter:	-32.79%
PEG Ratio	3.72				
Price Ratios		**ROE**		**ROA**	
Price/Book	1.88	09/30/06	9.81	09/30/06	3.15
Price/Cash Flow	9.30	06/30/06	10.06	06/30/06	3.10
Price / Sales	2.16	03/31/06	10.00	03/31/06	3.08
Current Ratio		**Quick Ratio**		**Operating Margin**	
09/30/06	0.84	09/30/06	0.43	09/30/06	11.46
06/30/06	0.92	06/30/06	0.52	06/30/06	13.49
03/31/06	1.02	03/31/06	0.84	03/31/06	13.83
Net Margin		**Pre-Tax Margin**		**Book Value**	
09/30/06	17.94	09/30/06	17.94	09/30/06	21.51
06/30/06	21.10	06/30/06	21.10	06/30/06	22.15
03/31/06	21.63	03/31/06	21.63	03/31/06	22.43
Inventory Turnover		**Debt-to-Equity**		**Debt to Captial**	
09/30/06	8.60	09/30/06	0.83	09/30/06	45.37
06/30/06	8.61	06/30/06	0.81	06/30/06	44.61
03/31/06	9.69	03/31/06	0.81	03/31/06	44.76

Zacks.com

Zacks.com Quotes and Research

PIEDMONT NAT GAS INC (NYSE)

Scottrade $7 Online Stock Trades

PNY	28.10	▲0.15	(0.54%)	Vol. 37,900	10:57 CST

Piedmont Natural Gas Co, Inc., is an energy and services company engaged in the transportation and sale of natural gas and the sale of propane to residential, commercial and industrial customers in North Carolina, South Carolina and Tennessee. The Company is the second-largest natural gas utility in the southeast. The Company and its non-utility subsidiaries and divisions are also engaged in acquiring, marketing and arranging for the transportation and storage of natural gas for large-volume purchasers, and in the sale of propane to customers in the Company's three-state service area.

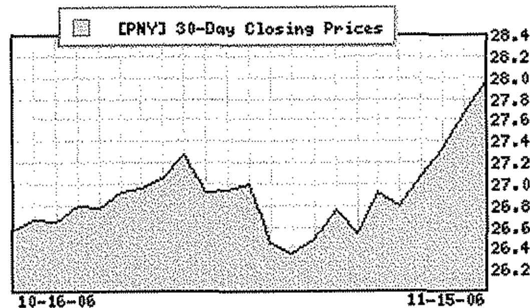
General Information

PIEDMONT NAT GA
4720 Piedmont Row Drive
Charlotte, NC 28210
Phone: 704 364-3120
Fax: 704 364-1395
Web: www.piedmontng.com
Email: headen.thomas@piedmontng.com

Industry	UTIL-GAS DISTR
Sector:	Utilities
Fiscal Year End	*October*
Last Reported Quarter	10/31/06
' EPS Date	12/08/2006

. ..ce and Volume Information

Zacks Rank	
Yesterday's Close	27.95
52 Week High	27.33
52 Week Low	22.53
Beta	0.35
20 Day Moving Average	171,175.00
Target Price Consensus	27



% Price Change		% Price Change Relative to S&P 500	
4 Week	2.86	4 Week	1.72
12 Week	5.93	12 Week	-0.72
YTD	13.12	YTD	1.28

Share Information		Dividend Information	
Shares Outstanding (millions)	75.33	Dividend Yield	3.51%
Market Capitalization (millions)	2,058.69	Annual Dividend	$0.96
		Payout Ratio	0.00
Short Ratio	26.65	Change in Payout Ratio	0.00
Last Split Date	04/01/1993	Last Dividend Payout / Amount	09/20/2006 / $0.24

; Information		Consensus Recommendations	
Current Quarter EPS Consensus Estimate	-0.08	Current (1=Strong Buy, 5=Strong Sell)	2.89
Current Year EPS Consensus Estimate	1.31	30 Days Ago	2.89
Estimated Long-Term EPS Growth Rate	5.60	60 Days Ago	2.89
Next EPS Report Date	12/08/2006	90 Days Ago	2.63

Fundamental Ratios

P/E		EPS Growth		Sales Growth	
...ent FY Estimate:	19.31	vs. Previous Year	-166.67%	vs. Previous Year	2.13%
...ing 12 Months:	21.19	vs. Previous Quarter	-128.07%	vs. Previous Quarter:	-50.77%
PEG Ratio	3.45				
Price Ratios		**ROE**		**ROA**	
Price/Book	2.28	10/31/06	-	10/31/06	-
Price/Cash Flow	10.88	07/31/06	10.76	07/31/06	3.67
Price / Sales	-	04/30/06	11.60	04/30/06	4.04
Current Ratio		**Quick Ratio**		**Operating Margin**	
10/31/06	-	10/31/06	-	10/31/06	-
07/31/06	1.41	07/31/06	0.94	07/31/06	4.96
04/30/06	0.93	04/30/06	0.71	04/30/06	5.37
Net Margin		**Pre-Tax Margin**		**Book Value**	
10/31/06	-	10/31/06	-	10/31/06	-
07/31/06	8.12	07/31/06	8.12	07/31/06	11.98
04/30/06	8.80	04/30/06	8.80	04/30/06	12.19
Inventory Turnover		**Debt-to-Equity**		**Debt to Captial**	
10/31/06	-	10/31/06	-	10/31/06	-
07/31/06	9.96	07/31/06	0.91	07/31/06	47.77
04/30/06	10.45	04/30/06	0.67	04/30/06	40.18

.com Quotes and Research

SOUTH JERSEY INDS INC (NYSE)

Scottrade $7 Online Stock Trades

SJI 32.89 0.05 (0.15%) Vol. 15,200 10:59 CST

South Jersey Inds Inc. is engaged in the business of operating, through subsidiaries, various business enterprises. The company's most significant subsidiary is South Jersey Gas Company (SJG). SJG is a public utility company engaged in the purchase, transmission and sale of natural gas for residential, commercial and industrial use. SJG also makes off-system sales of natural gas on a wholesale basis to various customers on the interstate pipeline system and transports natural gas.

General Information

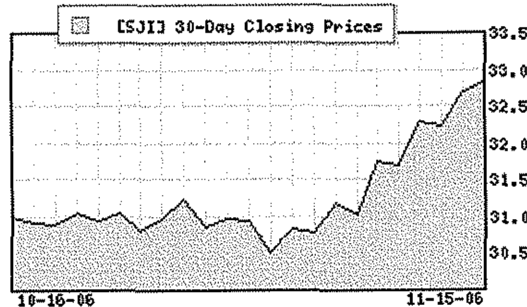
SOUTH JERSEY IN
1 South Jersey Plaza
Folsom, NJ 08037
Phone: 609 561-9000
Fax: 609-704-1608
Web: www.sjindustries.com
Email: investorrelations@sjindustries.com

Industry	UTIL-GAS DISTR
Sector:	Utilities

Fiscal Year End	December
Last Reported Quarter	09/30/06
Next EPS Date	03/05/2007

Price and Volume Information

Zacks Rank	
terday's Close	32.84
Week High	32.29
52 Week Low	26.00
Beta	0.28
20 Day Moving Average	94,530.00
Target Price Consensus	34



% Price Change	
4 Week	4.00
12 Week	12.30
YTD	10.64

% Price Change Relative to S&P 500	
4 Week	2.85
12 Week	5.25
YTD	0.17

Share Information	
Shares Outstanding (millions)	29.23
Market Capitalization (millions)	942.47
Short Ratio	14.57
Last Split Date	03/04/1993

Dividend Information	
Dividend Yield	2.79%
Annual Dividend	$0.90
Payout Ratio	0.54
Change in Payout Ratio	0.00
Last Dividend Payout / Amount	09/07/2006 / $0.22

EPS Information	
Current Quarter EPS Consensus Estimate	0.56
Current Year EPS Consensus Estimate	1.83
nated Long-Term EPS Growth Rate	6.00
Next EPS Report Date	03/05/2007

Consensus Recommendations	
Current (1=Strong Buy, 5=Strong Sell)	1.33
30 Days Ago	1.33
60 Days Ago	1.33
90 Days Ago	1.75

Fundamental Ratios

P/E		**EPS Growth**		**Sales Growth**	
ent FY Estimate:	17.58	vs. Previous Year	0.00%	vs. Previous Year	-15.23%
ailing 12 Months:	19.31	vs. Previous Quarter	-64.00%	vs. Previous Quarter:	-14.45%
PEG Ratio	2.93				
Price Ratios		**ROE**		**ROA**	
Price/Book	2.22	09/30/06	11.73	09/30/06	3.39
Price/Cash Flow	12.27	06/30/06	12.09	06/30/06	3.47
Price / Sales	1.01	03/31/06	12.61	03/31/06	3.65
Current Ratio		**Quick Ratio**		**Operating Margin**	
09/30/06	-	09/30/06	-	09/30/06	5.16
06/30/06	0.90	06/30/06	0.50	06/30/06	5.05
03/31/06	0.94	03/31/06	0.73	03/31/06	5.09
Net Margin		**Pre-Tax Margin**		**Book Value**	
09/30/06	-	09/30/06	-	09/30/06	-
06/30/06	8.37	06/30/06	8.37	06/30/06	14.53
03/31/06	8.45	03/31/06	8.45	03/31/06	14.46
Inventory Turnover		**Debt-to-Equity**		**Debt to Captial**	
09/30/06	-	09/30/06	-	09/30/06	-
06/30/06	6.67	06/30/06	0.85	06/30/06	45.83
03/31/06	7.60	03/31/06	0.80	03/31/06	44.46

.com Quotes and Research

WGL HLDGS INC (NYSE)

Scottrade $7 Online Stock Trades

WGL 33.22 -0.03 (-0.09%) Vol. 54,100 10:59 CST

WASHINGTON GAS LIGHT CO is a public utility that delivers and sells natural gas to metropolitan Washington, D.C. and adjoining areas in Maryland and Virginia. A distribution subsidiary serves portions of Virginia and West Virginia. The Company has four wholly-owned active subsidiaries that include: Shenandoah Gas Company (Shenandoah) is engaged in the delivery and sale of natural gas at retail in the Shenandoah Valley, including Winchester, Middletown, Strasburg, Stephens City and New Market, Virginia, and Martinsburg, West Virginia.

General Information

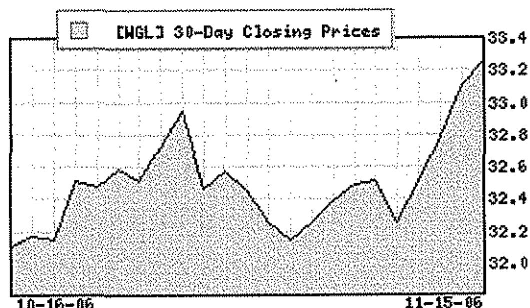
WGL HLDGS INC
101 Constitution Ave, N.W
Washington, DC 20080
Phone: 703 750-2000
Fax: -
Web: www.wglholdings.com
Email: apennix@washgas.com

Industry	UTIL-GAS DISTR
Sector:	Utilities

Fiscal Year End	September
Last Reported Quarter	09/30/06
Next EPS Date	02/06/2007

Price and Volume Information

ks Rank	
terday's Close	33.25
52 Week High	32.94
52 Week Low	27.38
Beta	0.27
20 Day Moving Average	169,810.00
Target Price Consensus	32



% Price Change

4 Week	2.09
12 Week	7.86
YTD	9.05

% Price Change Relative to S&P 500

4 Week	0.95
12 Week	1.09
YTD	-2.27

Share Information

Shares Outstanding (millions)	48.77
Market Capitalization (millions)	1,598.81
Short Ratio	23.85
Last Split Date	05/02/1995

Dividend Information

Dividend Yield	4.12%
Annual Dividend	$1.35
Payout Ratio	0.72
Change in Payout Ratio	0.00
Last Dividend Payout / Amount	10/05/2006 / $0.34

EPS Information

Current Quarter EPS Consensus Estimate	0.89
ent Year EPS Consensus Estimate	1.89
mated Long-Term EPS Growth Rate	3.30
Next EPS Report Date	02/06/2007

Consensus Recommendations

Current (1=Strong Buy, 5=Strong Sell)	2.67
30 Days Ago	2.33
60 Days Ago	2.20
90 Days Ago	2.60

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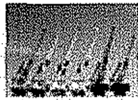
Fundamental Ratios

		EPS Growth		Sales Growth	
Current FY Estimate:	17.39	vs. Previous Year	28.00%	vs. Previous Year	48.87%
Trailing 12 Months:	17.44	vs. Previous Quarter	-1,700.00%	vs. Previous Quarter:	30.63%
PEG Ratio	5.22				
Price Ratios		**ROE**		**ROA**	
Price/Book	1.69	09/30/06	9.73	09/30/06	3.11
Price/Cash Flow	8.30	06/30/06	9.48	06/30/06	3.08
Price / Sales	1.27	03/31/06	8.72	03/31/06	2.87
Current Ratio		**Quick Ratio**		**Operating Margin**	
09/30/06	-	09/30/06	-	09/30/06	7.28
06/30/06	1.17	06/30/06	0.71	06/30/06	7.64
03/31/06	1.15	03/31/06	0.88	03/31/06	6.43
Net Margin		**Pre-Tax Margin**		**Book Value**	
09/30/06	-	09/30/06	-	09/30/06	-
06/30/06	9.88	06/30/06	9.88	06/30/06	19.41
03/31/06	8.19	03/31/06	8.19	03/31/06	19.76
Inventory Turnover		**Debt-to-Equity**		**Debt to Captial**	
09/30/06	-	09/30/06	-	09/30/06	-
06/30/06	3.29	06/30/06	0.61	06/30/06	37.38
03/31/06	3.63	03/31/06	0.60	03/31/06	36.96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Estimates

AGL Resources Inc ATG (NYSE)

Sector: Utilities **Industry:** Natural Gas Utilities

As of 11:25 AM EST	Price Change	Percent Change	See Risk Alerts for **ATG**.
$37.94 USD	▲0.03	▲0.08%	

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Consensus Estimates Analysis | Historical Surprises | Consensus Estimates Trend | Estimates Revisions

CONSENSUS ESTIMATES ANALYSIS

In U.S. Dollars	# of Ests.	Mean Est.	High Est.	Low Est.	Std.Dev.
Revenue (in Millions)					
Q4: 12/2006	--	--	--	--	--
Q1: 03/2007	--	--	--	--	--
FY: 2006	3	2,610.97	2,656.90	2,546.00	47.23
FY: 2007	3	2,606.30	2,645.90	2,563.00	33.94
EPS					
Q4: 12/2006	6	0.54	0.56	0.52	0.01
Q1: 03/2007	4	1.31	1.43	1.20	0.09
FY: 2006	10	2.62	2.68	2.42	0.07
FY: 2007	9	2.70	2.82	2.54	0.08
LT Growth Rate (%)	8	4.66	7.00	3.00	1.10

Learn about EPS Estimates

HISTORICAL SURPRISES

Estimates vs. Actual In US Dollars	Estimates	Actual
Revenue (in Millions)		
Q3: 09/2006	373.83	434.00
Q1: 03/2006	935.22	1,047.00
Q4: 12/2005	569.80	993.00
Q3: 09/2005	270.22	393.00
Q2: 06/2005	341.00	431.00
EPS		
Q3: 09/2006	0.29	0.46
Q1: 03/2006	1.29	1.41
Q4: 12/2005	0.77	0.85

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Q3: 09/2005	0.26	0.19
Q2: 06/2005	0.32	0.30

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CONSENSUS ESTIMATES TREND

In U.S. Dollars	Current	1 Week Ago	1 Month Ago	2 Months Ago
Revenue (in Millions)				
Q4: 12/2006	947.82	843.41	739.00	
Q1: 03/2007	950.00	950.00		
FY: 2006	2,610.97	2,610.97	2,664.58	2,664.58
FY: 2007	2,606.30	2,606.30	2,378.59	2,378.52
EPS				
Q4: 12/2006	0.54	0.54	0.66	0.69
Q1: 03/2007	1.31	1.31	1.31	1.31
FY: 2006	2.62	2.63	2.61	2.61
FY: 2007	2.70	2.69	2.68	2.68

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ESTIMATES REVISIONS SUMMARY

	Last Week		Last Montl
Number of Estimate Revisions	**Up**	**Down**	**Up**
Revenue (in Millions)			
Q4: 12/2006	0	0	0
Q1: 03/2007	0	0	0
FY: 2006	0	0	2
FY: 2007	0	0	1
Earnings			
Q4: 12/2006	0	0	0
Q1: 03/2007	0	0	2
FY: 2006	0	1	4
FY: 2007	1	1	2

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Thu 16 Nov 2006 11:37am ET

Estimates

Atmos Energy Corp ATO (NYSE)

Sector: Utilities **Industry:** Natural Gas Utilities

As of 11:13 AM EST	Price Change	Percent Change
$32.60 USD	▲0.02	▲0.06%

See Risk Alerts for **ATO**.

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CONSENSUS ESTIMATES ANALYSIS

In U.S. Dollars	# of Ests.	Mean Est.	High Est.	Low Est.	Std.Dev.
Revenue (in Millions)					
Q1: 12/2006	--	--	--	--	--
Q2: 03/2007	--	--	--	--	--
FY: 2007	1	10,753.00	10,753.00	10,753.00	--
FY: 2008	1	10,981.00	10,981.00	10,981.00	--
EPS					
Q1: 12/2006	6	0.95	1.06	0.88	0.07
Q2: 03/2007	6	1.15	1.25	1.03	0.07
FY: 2007	8	1.96	2.05	1.90	0.04
FY: 2008	5	2.09	2.22	2.02	0.07
LT Growth Rate (%)	7	4.96	7.00	3.00	1.43

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HISTORICAL SURPRISES

Estimates vs. Actual

In US Dollars	Estimates	Actual
Revenue (in Millions)		
Q3: 06/2006	1,085.84	863.24
Q1: 12/2005	1,912.26	2,283.82
Q4: 09/2005	659.40	1,004.63
Q3: 06/2005	683.40	909.95
Q2: 03/2005	1,607.68	1,685.09
EPS		
Q3: 06/2006	0.03	-0.07
Q1: 12/2005	0.82	0.88
Q4: 09/2005	-0.24	-0.21

Q3: 06/2005	-0.05	0.06
Q2: 03/2005	1.05	0.96

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CONSENSUS ESTIMATES TREND

In U.S. Dollars	Current	1 Week Ago	1 Month Ago	2 Months Ago
Revenue (in Millions)				
Q1: 12/2006	1,708.00	2,141.00		
Q2: 03/2007	2,009.00	1,427.00		
FY: 2007	10,753.00	12,177.00	9,023.00	9,660.00
FY: 2008	10,981.00			
EPS				
Q1: 12/2006	0.95	0.90	0.89	0.89
Q2: 03/2007	1.15	1.14	1.15	1.15
FY: 2007	1.96	1.96	1.97	1.96
FY: 2008	2.09	2.05	2.06	2.05

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ESTIMATES REVISIONS SUMMARY

	Last Week		Last Montl
Number of Estimate Revisions	**Up**	**Down**	**Up**
Revenue (in Millions)			
Q1: 12/2006	0	0	0
Q2: 03/2007	0	0	0
FY: 2007	0	1	0
FY: 2008	0	0	0
Earnings			
Q1: 12/2006	0	0	0
Q2: 03/2007	0	0	1
FY: 2007	1	0	2
FY: 2008	1	1	2

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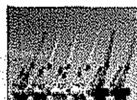
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Thu 16 Nov 2006 11:48am ET

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Estimates

New Jersey Resources Corp NJR (NYSE)

Sector: Utilities **Industry:** Natural Gas Utilities

As of 11:27 AM EST	Price Change	Percent Change
$52.62 USD	▲0.07	▲0.13%

See Risk Alerts for **NJR**.

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CONSENSUS ESTIMATES ANALYSIS

In U.S. Dollars	# of Ests.	Mean Est.	High Est.	Low Est.	Std.Dev.
Revenue (in Millions)					
Q1: 12/2006	--	--	--	--	--
Q2: 03/2007	--	--	--	--	--
FY: 2007	--	--	--	--	--
FY: 2008	--	--	--	--	--
EPS					
Q1: 12/2006	2	1.20	1.25	1.15	0.05
Q2: 03/2007	2	2.09	2.18	2.00	0.09
FY: 2007	6	2.85	2.95	2.70	0.08
FY: 2008	4	2.93	2.99	2.89	0.04
LT Growth Rate (%)	6	5.72	8.30	4.00	1.46

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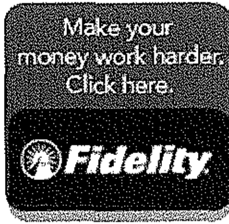
HISTORICAL SURPRISES

Estimates vs. Actual

In US Dollars	Estimates	Actual
Revenue (in Millions)		
Q4: 09/2005	379.29	684.94
Q3: 06/2005	406.48	544.28
Q2: 03/2005	1,244.68	1,065.06
Q2: 03/2002	--	525.78
Q1: 12/2001	--	395.83
EPS		
Q4: 09/2005	-0.16	-0.18
Q3: 06/2005	0.11	0.07
Q2: 03/2005	1.79	1.84



Q2: 03/2002	--	1.29
Q1: 12/2001	--	0.73

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CONSENSUS ESTIMATES TREND

We're sorry, Consensus Estimates Trend is not available for New Jersey Resources Corp (NJR). Why?

ESTIMATES REVISIONS SUMMARY

	Last Week		Last Montl
Number of Estimate Revisions	**Up**	**Down**	**Up**
Revenue (in Millions)			
Q1: 12/2006	0	0	0
Q2: 03/2007	0	0	0
FY: 2007	0	0	0
FY: 2008	0	0	0
Earnings			
Q1: 12/2006	0	0	0
Q2: 03/2007	0	0	1
FY: 2007	0	1	0
FY: 2008	0	0	0

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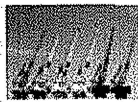
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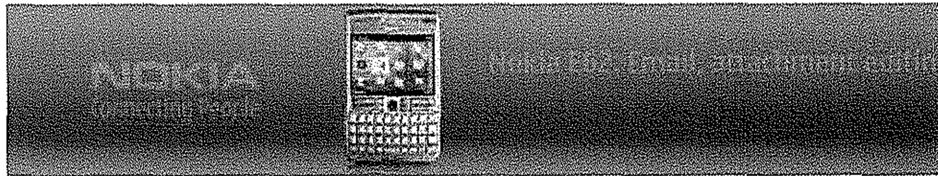

Thu 16 Nov 2006 11:49am ET

Estimates

Nicor Inc GAS (NYSE)

Sector: Utilities **Industry:** Natural Gas Utilities

As of 11:29 AM EST	Price Change	Percent Change
$49.41 USD	▲0.10	▲0.20%

See Risk Alerts for **GAS**.

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CONSENSUS ESTIMATES ANALYSIS

In U.S. Dollars	# of Ests.	Mean Est.	High Est.	Low Est.	Std.Dev.
Revenue (in Millions)					
Q4: 12/2006	1	1,081.00	1,081.00	1,081.00	--
Q1: 03/2007	--	--	--	--	--
FY: 2006	1	3,202.30	3,202.30	3,202.30	--
FY: 2007	1	3,350.90	3,350.90	3,350.90	--
EPS					
Q4: 12/2006	3	0.96	0.98	0.95	0.01
Q1: 03/2007	1	0.97	0.97	0.97	--
FY: 2006	4	2.64	2.72	2.50	0.08
FY: 2007	4	2.71	2.75	2.60	0.07
LT Growth Rate (%)	6	3.25	6.00	1.50	1.46

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HISTORICAL SURPRISES

Estimates vs. Actual

In US Dollars	Estimates	Actual
Revenue (in Millions)		
Q3: 09/2006	321.00	351.10
Q2: 06/2006	539.00	451.30
Q1: 03/2006	1,746.00	1,319.40
Q4: 12/2005	986.00	1,357.50
Q3: 09/2005	300.00	336.00
EPS		
Q3: 09/2006	0.03	0.27
Q2: 06/2006	0.40	0.41
Q1: 03/2006	0.93	0.94

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Q4: 12/2005	0.97	1.02
Q3: 09/2005	-0.12	-0.09

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CONSENSUS ESTIMATES TREND

In U.S. Dollars	Current	1 Week Ago	1 Month Ago	2 Months Ago
Revenue (in Millions)				
Q4: 12/2006	1,081.00	1,081.00	1,185.00	1,185.00
FY: 2006	3,202.30	3,202.30	3,276.00	3,276.00
FY: 2007	3,350.90	3,350.90	3,352.00	3,352.00
EPS				
Q4: 12/2006	0.96	0.96	1.10	1.10
Q1: 03/2007	0.97	0.97	0.97	0.97
FY: 2006	2.64	2.64	2.45	2.45
FY: 2007	2.71	2.71	2.52	2.52

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ESTIMATES REVISIONS SUMMARY

	Last Week		Last Montł
Number of Estimate Revisions	**Up**	**Down**	**Up**
Revenue (in Millions)			
Q4: 12/2006	0	0	0
Q1: 03/2007	0	0	0
FY: 2006	0	0	0
FY: 2007	0	0	0
Earnings			
Q4: 12/2006	0	0	1
Q1: 03/2007	0	0	0
FY: 2006	0	0	4
FY: 2007	0	0	4

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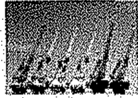
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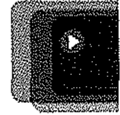

Thu 16 Nov 2006 11:50am ET

Estimates

Northwest Natural Gas Co NWN (NYSE)

Sector: Utilities **Industry:** Natural Gas Utilities

As of 11:27 AM EST $41.09 USD | **Price Change** ▲0.19 | **Percent Change** ▲0.46% | See Risk Alerts for **NWN**.

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CONSENSUS ESTIMATES ANALYSIS

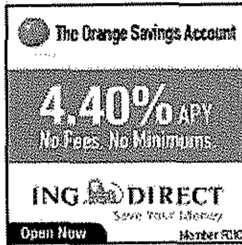
In U.S. Dollars	# of Ests.	Mean Est.	High Est.	Low Est.	Std.Dev.
Revenue (in Millions)					
Q4: 12/2006	2	326.27	350.12	302.42	23.85
Q1: 03/2007	2	382.42	413.84	351.00	31.42
FY: 2006	4	987.03	1,026.41	969.00	22.99
FY: 2007	4	1,014.58	1,082.58	969.00	43.52
EPS					
Q4: 12/2006	5	1.02	1.05	0.97	0.03
Q1: 03/2007	4	1.53	1.58	1.50	0.03
FY: 2006	6	2.23	2.26	2.19	0.03
FY: 2007	6	2.36	2.39	2.30	0.03
LT Growth Rate (%)	3	5.33	6.00	5.00	0.47

Learn about EPS Estimates

HISTORICAL SURPRISES

Estimates vs. Actual

In US Dollars	Estimates	Actual
Revenue (in Millions)		
Q3: 09/2006	108.54	114.91
Q2: 06/2006	163.82	170.98
Q1: 03/2006	350.78	390.39
Q4: 12/2005	272.26	341.38
Q3: 09/2005	81.37	106.67
EPS		
Q3: 09/2006	-0.31	-0.35
Q2: 06/2006	0.05	0.07
Q1: 03/2006	1.47	1.48



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Q4: 12/2005	0.98	1.00
Q3: 09/2005	-0.33	-0.31

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CONSENSUS ESTIMATES TREND

In U.S. Dollars	Current	1 Week Ago	1 Month Ago	2 Months Ago
Revenue (in Millions)				
Q4: 12/2006	326.27	326.27	326.27	326.27
Q1: 03/2007	382.42	382.42	382.42	382.42
FY: 2006	987.03	987.03	979.09	979.09
FY: 2007	1,014.58	1,014.58	999.91	999.91
EPS				
Q4: 12/2006	1.02	1.02	1.02	1.02
Q1: 03/2007	1.53	1.53	1.53	1.53
FY: 2006	2.23	2.23	2.25	2.25
FY: 2007	2.36	2.36	2.36	2.36

Learn about Estimates Trends

ESTIMATES REVISIONS SUMMARY

	Last Week		Last Montl
Number of Estimate Revisions	**Up**	**Down**	**Up**
Revenue (in Millions)			
Q4: 12/2006	0	0	0
Q1: 03/2007	0	0	0
FY: 2006	0	0	3
FY: 2007	0	0	1
Earnings			
Q4: 12/2006	0	0	1
Q1: 03/2007	0	0	1
FY: 2006	0	0	0
FY: 2007	0	0	0

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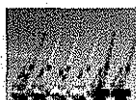

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Estimates

Piedmont Natural Gas Inc PNY (NYSE)

Sector: Utilities **Industry:** Natural Gas Utilities

As of 11:30 AM EST	Price Change	Percent Change
$28.15 USD	▲0.20	▲0.72%

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CONSENSUS ESTIMATES ANALYSIS

In U.S. Dollars	# of Ests.	Mean Est.	High Est.	Low Est.	Std.Dev.
Revenue (in Millions)					
Q4: 10/2006	2	153.00	239.00	67.00	86.00
Q1: 01/2007	--	--	--	--	--
FY: 2006	4	1,913.18	2,040.60	1,743.10	113.79
FY: 2007	4	1,873.93	2,062.70	1,690.40	138.39
EPS					
Q4: 10/2006	7	-0.08	-0.05	-0.10	0.02
Q1: 01/2007	3	0.97	0.98	0.97	0.00
FY: 2006	8	1.31	1.35	1.25	0.03
FY: 2007	8	1.42	1.45	1.38	0.02
LT Growth Rate (%)	7	4.86	6.00	3.00	1.12

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HISTORICAL SURPRISES

Estimates vs. Actual

In US Dollars	Estimates	Actual
Revenue (in Millions)		
Q3: 07/2006	239.50	237.87
Q2: 04/2006	559.90	483.20
Q4: 10/2005	219.20	339.59
Q3: 07/2005	231.05	232.91
Q2: 04/2005	544.10	508.04
EPS		
Q3: 07/2006	-0.09	-0.09
Q2: 04/2006	0.54	0.57
Q4: 10/2005	-0.11	-0.06

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Q3: 07/2005	-0.10	-0.06
Q2: 04/2005	0.57	0.52

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CONSENSUS ESTIMATES TREND

In U.S. Dollars	Current	1 Week Ago	1 Month Ago	2 Months Ago
Revenue (in Millions)				
Q4: 10/2006	153.00	153.00	153.00	153.00
FY: 2006	1,913.18	1,913.18	1,913.18	1,913.18
FY: 2007	1,873.93	1,873.93	1,873.93	1,873.93
EPS				
Q4: 10/2006	-0.08	-0.08	-0.08	-0.08
Q1: 01/2007	0.97	0.97	0.97	0.97
FY: 2006	1.31	1.31	1.31	1.31
FY: 2007	1.42	1.42	1.42	1.42

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ESTIMATES REVISIONS SUMMARY

	Last Week		Last Montl
Number of Estimate Revisions	**Up**	**Down**	**Up**
Revenue (in Millions)			
Q4: 10/2006	0	0	0
Q1: 01/2007	0	0	0
FY: 2006	0	0	0
FY: 2007	0	0	0
Earnings			
Q4: 10/2006	0	0	0
Q1: 01/2007	0	0	0
FY: 2006	0	0	0
FY: 2007	0	0	0

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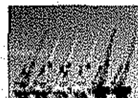

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Estimates

South Jersey Industries Inc SJI (NYSE)

Sector: *Utilities* **Industry:** *Natural Gas Utilities*

As of 11:33 AM EST	Price Change	Percent Change
$32.83 USD	▾0.01	▾0.03%

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CONSENSUS ESTIMATES ANALYSIS

In U.S. Dollars	# of Ests.	Mean Est.	High Est.	Low Est.	Std.Dev.
Revenue (in Millions)					
Q4: 12/2006	1	245.00	245.00	245.00	--
Q1: 03/2007	1	320.00	320.00	320.00	--
FY: 2006	1	815.50	815.50	815.50	--
FY: 2007	1	824.30	824.30	824.30	--
EPS					
Q4: 12/2006	2	0.56	0.58	0.53	0.03
Q1: 03/2007	2	0.98	0.98	0.98	0.00
FY: 2006	3	1.83	1.85	1.82	0.01
FY: 2007	3	1.97	1.98	1.95	0.01
LT Growth Rate (%)	3	6.33	7.00	6.00	0.47

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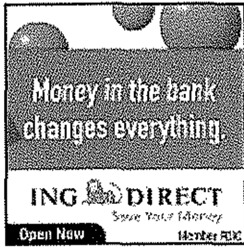
HISTORICAL SURPRISES

Estimates vs. Actual

In US Dollars	Estimates	Actual
Revenue (in Millions)		
Q3: 09/2006	136.00	133.06
Q2: 06/2006	123.90	155.53
Q1: 03/2006	307.90	364.98
Q2: 06/2005	142.20	154.04
Q1: 03/2005	327.58	328.57
EPS		
Q3: 09/2006	0.12	0.09
Q2: 06/2006	0.28	0.25
Q1: 03/2006	0.91	0.93



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Q2: 06/2005	0.16	0.27
Q1: 03/2005	0.94	0.96

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CONSENSUS ESTIMATES TREND

In U.S. Dollars	Current	1 Week Ago	1 Month Ago	2 Months Ago
Revenue (in Millions)				
Q4: 12/2006	245.00	245.00	245.00	245.00
Q1: 03/2007	320.00	320.00	320.00	320.00
FY: 2006	815.50	815.50	815.50	815.50
FY: 2007	824.30	824.30	824.30	824.30
EPS				
Q4: 12/2006	0.56	0.56	0.54	0.54
Q1: 03/2007	0.98	0.98	0.98	0.98
FY: 2006	1.83	1.83	1.83	1.83
FY: 2007	1.97	1.95	1.95	1.95

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ESTIMATES REVISIONS SUMMARY

	Last Week		Last Montl
Number of Estimate Revisions	**Up**	**Down**	**Up**
Revenue (in Millions)			
Q4: 12/2006	0	0	0
Q1: 03/2007	0	0	0
FY: 2006	0	0	0
FY: 2007	0	0	0
Earnings			
Q4: 12/2006	0	0	1
Q1: 03/2007	0	0	0
FY: 2006	0	0	0
FY: 2007	1	0	1

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Estimates

WGL Holdings Inc WGL (NYSE)

Sector: Utilities **Industry:** Natural Gas Utilities

As of 11:32 AM EST	Price Change	Percent Change
$33.24 USD	▼0.01	▼0.03%

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CONSENSUS ESTIMATES ANALYSIS

In U.S. Dollars	# of Ests.	Mean Est.	High Est.	Low Est.	Std.Dev.
Revenue (in Millions)					
Q1: 12/2006	1	177.10	177.10	177.10	--
Q2: 03/2007	1	218.55	218.55	218.55	--
FY: 2007	3	1,642.79	2,447.00	561.90	794.07
FY: 2008	1	2,546.00	2,546.00	2,546.00	--
EPS					
Q1: 12/2006	5	0.90	0.93	0.86	0.03
Q2: 03/2007	5	1.22	1.29	1.16	0.04
FY: 2007	7	1.91	1.98	1.85	0.04
FY: 2008	3	1.99	2.02	1.95	0.03
LT Growth Rate (%)	6	3.40	4.00	3.00	0.45

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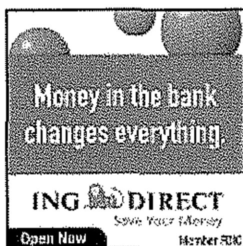
HISTORICAL SURPRISES

Estimates vs. Actual

In US Dollars	Estimates	Actual
Revenue (in Millions)		
Q4: 09/2006	109.82	131.92
Q3: 06/2006	200.27	183.60
Q2: 03/2006	586.04	705.66
Q1: 12/2005	410.98	601.34
Q4: 09/2005	139.06	137.58
EPS		
Q4: 09/2006	-0.22	-0.18
Q3: 06/2006	-0.08	-0.01
Q2: 03/2006	1.25	1.20



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Q1: 12/2005	0.86	0.91
Q4: 09/2005	-0.37	-0.25

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CONSENSUS ESTIMATES TREND

In U.S. Dollars	Current	1 Week Ago	1 Month Ago	2 Months Ago
Revenue (in Millions)				
Q1: 12/2006	177.10	188.75	188.75	188.75
Q2: 03/2007	218.55	220.79	220.79	220.79
FY: 2007	1,642.79	1,147.38	1,147.38	1,147.38
FY: 2008	2,546.00			
EPS				
Q1: 12/2006	0.90	0.94	0.94	0.94
Q2: 03/2007	1.22	1.21	1.21	1.21
FY: 2007	1.91	1.93	1.93	1.93
FY: 2008	1.99	1.99	1.99	1.99

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ESTIMATES REVISIONS SUMMARY

	Last Week		Last Montl
Number of Estimate Revisions	**Up**	**Down**	**Up**
Revenue (in Millions)			
Q1: 12/2006	0	1	0
Q2: 03/2007	0	1	0
FY: 2007	2	1	2
FY: 2008	0	0	0
Earnings			
Q1: 12/2006	0	4	0
Q2: 03/2007	2	2	2
FY: 2007	0	4	0
FY: 2008	0	0	0

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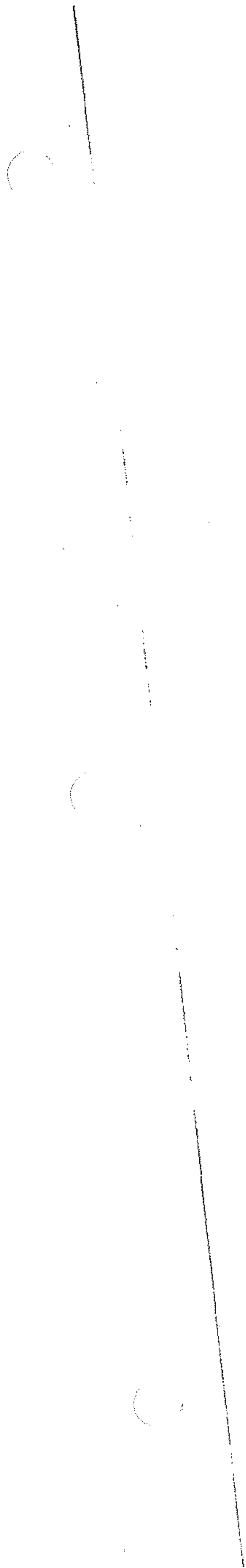


**BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007**

Question No. 93

The questions in this section refer to the testimony of Paul R. Moul:

With reference to pages 35-39, and Appendix E, please (1) list all regulatory cases (by name, docket number, and filing date) in which Mr. Moul has provided rate of return testimony and proposed his leverage adjustment , (2) indicate all cases (by name, docket number, and date), other than those cited, in which a regulatory commission has adopted Mr. Moul's leverage adjustment in arriving at an overall rate of return, and (3) provide copies of the 'Rate of Return' section of the Commission's decisions for all cases in which a regulatory commission has adopted the adjustment.

Response of Columbia Gas of Kentucky:

(1) The first testimony that Mr. Moul offered where he compared the financial risk of the market capitalization to the book capitalization was Appalachian Power Company (Case No. PUE960301). He has proposed this adjustment in all subsequent cases where it was warranted. The three most recent such cases filed prior to Columbia of Kentucky were Indiana-American Water Company (Cause No. 43187), Duquesne Light Company (Docket No. EL06-109-000 and ER06-1549-000), and Chesapeake Utilities Corporation (Case No. 9062).

(2) & (3) This adjustment has been employed in the cost equity determinations by the Pennsylvania Public Utility Commission in the following cases:

- January 10, 2002 for Pennsylvania-American Water Company in Docket No. R-00016339 -- 60 basis points adjustment.
- August 1, 2002 for Philadelphia Suburban Water Company in Docket No. R-00016750 -- 80 basis points adjustment.

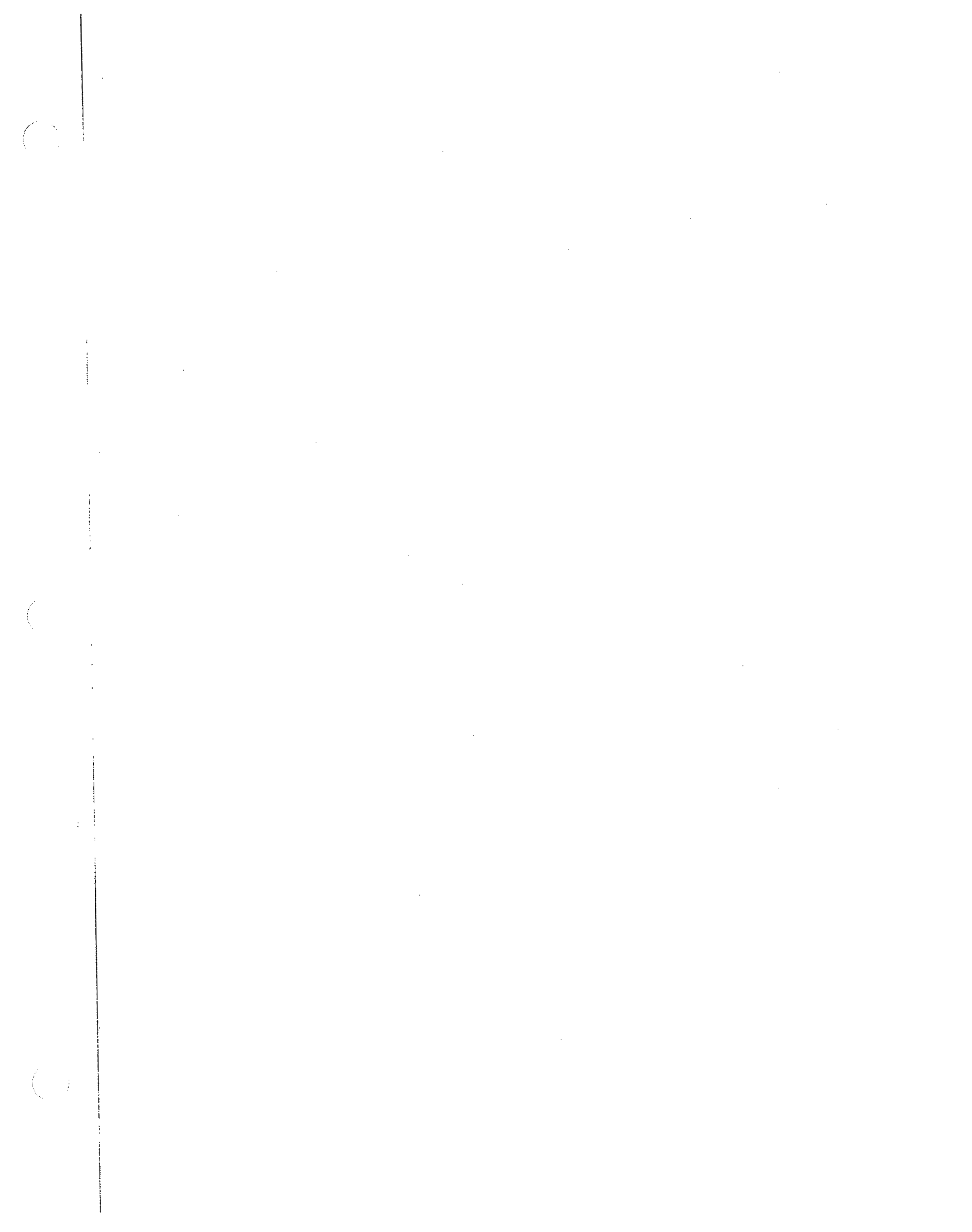
- January 29, 2004 for Pennsylvania-American Water Company in Docket No. R-00038304 (affirmed by the Commonwealth Court on November 8, 2004) -- 60 basis points adjustment.

- August 5, 2004 for Aqua Pennsylvania, Inc. in Docket No. R-00038805 -- 60 basis points adjustment.

- December 22, 2004 for PPL Electric Utilities Corporation in Docket No. R-00049255 -- 45 basis points.

- February 8, 2007 for PPL Gas Utilities Corporation in Docket No. R-00061398 -- 70 basis points adjustment.

In addition, the Connecticut Department of Public Utility Control considered an adjustment such as this in its Decision dated January 21, 1998 in Docket No. 97-07-14, where it adopted 5/8ths of the proposed leverage adjustment. A copy of those decisions is attached.



BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 94

The questions in this section refer to the testimony of Paul R. Moul:

With reference to pages 39, and Appendix E, please (1) provide copies of the pages from Modigliani and Miller's original published research that support the formulation used to adjust the DCF equity cost rate; and (2) indicate exactly (by page and line numbers) where in these publications these authors prescribe this leverage adjustment for rate of return and rate making purposes.

Response of Columbia Gas of Kentucky:

(1) & (2) There is no reference to the DCF cost rate in those articles that are attached to the response. The Miller and Modigliani articles indicate that increases in the level of a firm's debt capital increases its financial risk, necessitating an increase in the cost of equity. Mr. Moul has applied that basic theory to properly account for the fact that the capital structure used for rate setting purposes has a higher percentage of debt than does the market capitalization of the companies he used to develop his recommended return on equity. It is the variation between the book value and market capitalizations that is important to the cost of capital issue in this case. Hence, the variation in the financial risk associated with alternative capital structures is the issue that was addressed by Mr. Moul. For example, the change in the cost of equity can be calculated with alternative capital structures associated with the market capitalization, without regard to book value. Similarly, if the market capitalization changed in such a way that its capitalization aligned with the book value, then the capital costs could be calculated at various degrees of financial risk associated with the market capitalization. In the circumstances presented in this case, however, the proportion of book value versus market capitalization, and corresponding impact on return can and should be made for the same reasons.

Further, this is a three step process, the first and third steps having multiple parts. In step one, the DCF cost of equity is calculated using the market price of stock and the capital structure ratios are computed from the market capitalization of both the debt and equity of a firm. In step two, a completely unlevered cost of equity is calculated, as if the firm were 100% equity financed. In the third step, a relevered cost of equity is calculated with the capital structure determined from the book value capitalization. Indeed, after

the cost of equity has been unlevered so that the cost of equity relates to a firm with 100% equity; it can be relevered with any proportions of debt and equity in the capital structure. In summary, Mr. Moul employed the theories employed by Miller and Modigliani in the context of substituting book value capitalization (the basis of rate setting) for the market capitalization, which necessitates an increase in the cost of equity to account for the associated increase in financial risk.

The Cost of Capital, Corporation Finance and the Theory of Investment

Franco Modigliani; Merton H. Miller

The American Economic Review, Vol. 48, No. 3. (Jun., 1958), pp. 261-297.

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The American Economic Review

VOLUME XLVIII JUNE 1958 NUMBER THREE

THE COST OF CAPITAL, CORPORATION FINANCE AND THE THEORY OF INVESTMENT

By FRANCO MODIGLIANI AND MERTON H. MILLER*

What is the "cost of capital" to a firm in a world in which funds are used to acquire assets whose yields are uncertain; and in which capital can be obtained by many different media, ranging from pure debt instruments, representing money-fixed claims, to pure equity issues, giving holders only the right to a pro-rata share in the uncertain venture? This question has vexed at least three classes of economists: (1) the corporation finance specialist concerned with the techniques of financing firms so as to ensure their survival and growth; (2) the managerial economist concerned with capital budgeting; and (3) the economic theorist concerned with explaining investment behavior at both the micro and macro levels.[1]

In much of his formal analysis, the economic theorist at least has tended to side-step the essence of this cost-of-capital problem by proceeding as though physical assets—like bonds—could be regarded as yielding known, sure streams. Given this assumption, the theorist has concluded that the cost of capital to the owners of a firm is simply the rate of interest on bonds; and has derived the familiar proposition that the firm, acting rationally, will tend to push investment to the point

* The authors are, respectively, professor and associate professor of economics in the Graduate School of Industrial Administration, Carnegie Institute of Technology. This article is a revised version of a paper delivered at the annual meeting of the Econometric Society, December 1956. The authors express thanks for the comments and suggestions made at that time by the discussants of the paper, Evsey Domar, Robert Eisner and John Lintner, and subsequently by James Duesenberry. They are also greatly indebted to many of their present and former colleagues and students at Carnegie Tech who served so often and with such remarkable patience as a critical forum for the ideas here presented.

[1] The literature bearing on the cost-of-capital problem is far too extensive for listing here. Numerous references to it will be found throughout the paper though we make no claim to completeness. One phase of the problem which we do not consider explicitly, but which has a considerable literature of its own is the relation between the cost of capital and public utility rates. For a recent summary of the "cost-of-capital theory" of rate regulation and a brief discussion of some of its implications, the reader may refer to H. M. Somers [20].

where the marginal yield on physical assets is equal to the market rate of interest.[2] This proposition can be shown to follow from either of two criteria of rational decision-making which are equivalent under certainty, namely (1) the maximization of profits and (2) the maximization of market value.

According to the first criterion, a physical asset is worth acquiring if it will increase the net profit of the owners of the firm. But net profit will increase only if the expected rate of return, or yield, of the asset exceeds the rate of interest. According to the second criterion, an asset is worth acquiring if it increases the value of the owners' equity, *i.e.*, if it adds more to the market value of the firm than the costs of acquisition. But what the asset adds is given by capitalizing the stream it generates at the market rate of interest, and this capitalized value will exceed its cost if and only if the yield of the asset exceeds the rate of interest. Note that, under either formulation, the cost of capital is equal to the rate of interest on bonds, regardless of whether the funds are acquired through debt instruments or through new issues of common stock. Indeed, in a world of sure returns, the distinction between debt and equity funds reduces largely to one of terminology.

It must be acknowledged that some attempt is usually made in this type of analysis to allow for the existence of uncertainty. This attempt typically takes the form of superimposing on the results of the certainty analysis the notion of a "risk discount" to be subtracted from the expected yield (or a "risk premium" to be added to the market rate of interest). Investment decisions are then supposed to be based on a comparison of this "risk adjusted" or "certainty equivalent" yield with the market rate of interest.[3] No satisfactory explanation has yet been provided, however, as to what determines the size of the risk discount and how it varies in response to changes in other variables.

Considered as a convenient approximation, the model of the firm constructed via this certainty—or certainty-equivalent—approach has admittedly been useful in dealing with some of the grosser aspects of the processes of capital accumulation and economic fluctuations. Such a model underlies, for example, the familiar Keynesian aggregate investment function in which aggregate investment is written as a function of the rate of interest—the same riskless rate of interest which appears later in the system in the liquidity-preference equation. Yet few would maintain that this approximation is adequate. At the macroeconomic level there are ample grounds for doubting that the rate of interest has

[2] Or, more accurately, to the marginal cost of borrowed funds since it is customary, at least in advanced analysis, to draw the supply curve of borrowed funds to the firm as a rising one. For an advanced treatment of the certainty case, see F. and V. Lutz [13].

[3] The classic examples of the certainty-equivalent approach are found in J. R. Hicks [8] and O. Lange [11].

as large and as direct an influence on the rate of investment as this analysis would lead us to believe. At the microeconomic level the certainty model has little descriptive value and provides no real guidance to the finance specialist or managerial economist whose main problems cannot be treated in a framework which deals so cavalierly with uncertainty and ignores all forms of financing other than debt issues.[4]

Only recently have economists begun to face up seriously to the problem of the cost of capital *cum* risk. In the process they have found their interests and endeavors merging with those of the finance specialist and the managerial economist who have lived with the problem longer and more intimately. In this joint search to establish the principles which govern rational investment and financial policy in a world of uncertainty two main lines of attack can be discerned. These lines represent, in effect, attempts to extrapolate to the world of uncertainty each of the two criteria—profit maximization and market value maximization—which were seen to have equivalent implications in the special case of certainty. With the recognition of uncertainty this equivalence vanishes. In fact, the profit maximization criterion is no longer even well defined. Under uncertainty there corresponds to each decision of the firm not a unique profit outcome, but a plurality of mutually exclusive outcomes which can at best be described by a subjective probability distribution. The profit outcome, in short, has become a random variable and as such its maximization no longer has an operational meaning. Nor can this difficulty generally be disposed of by using the mathematical expectation of profits as the variable to be maximized. For decisions which affect the expected value will also tend to affect the dispersion and other characteristics of the distribution of outcomes. In particular, the use of debt rather than equity funds to finance a given venture may well increase the expected return to the owners, but only at the cost of increased dispersion of the outcomes.

Under these conditions the profit outcomes of alternative investment and financing decisions can be compared and ranked only in terms of a *subjective* "utility function" of the owners which weighs the expected yield against other characteristics of the distribution. Accordingly, the extrapolation of the profit maximization criterion of the certainty model has tended to evolve into utility maximization, sometimes explicitly, more frequently in a qualitative and heuristic form.[5]

The utility approach undoubtedly represents an advance over the certainty or certainty-equivalent approach. It does at least permit us

[4] Those who have taken a "case-method" course in finance in recent years will recall in this connection the famous Liquigas case of Hunt and Williams, [9, pp. 193–96] a case which is often used to introduce the student to the cost-of-capital problem and to poke a bit of fun at the economist's certainty-model.

[5] For an attempt at a rigorous explicit development of this line of attack, see F. Modigliani and M. Zeman [14].

to explore (within limits) some of the implications of different financing arrangements, and it does give some meaning to the "cost" of different types of funds. However, because the cost of capital has become an essentially subjective concept, the utility approach has serious drawbacks for normative as well as analytical purposes. How, for example, is management to ascertain the risk preferences of its stockholders and to compromise among their tastes? And how can the economist build a meaningful investment function in the face of the fact that any given investment opportunity might or might not be worth exploiting depending on precisely who happen to be the owners of the firm at the moment?

Fortunately, these questions do not have to be answered; for the alternative approach, based on market value maximization, can provide the basis for an operational definition of the cost of capital and a workable theory of investment. Under this approach any investment project and its concomitant financing plan must pass only the following test: Will the project, as financed, raise the market value of the firm's shares? If so, it is worth undertaking; if not, its return is less than the marginal cost of capital to the firm. Note that such a test is entirely independent of the tastes of the current owners, since market prices will reflect not only their preferences but those of all potential owners as well. If any current stockholder disagrees with management and the market over the valuation of the project, he is free to sell out and reinvest elsewhere, but will still benefit from the capital appreciation resulting from management's decision.

The potential advantages of the market-value approach have long been appreciated; yet analytical results have been meager. What appears to be keeping this line of development from achieving its promise is largely the lack of an adequate theory of the effect of financial structure on market valuations, and of how these effects can be inferred from objective market data. It is with the development of such a theory and of its implications for the cost-of-capital problem that we shall be concerned in this paper.

Our procedure will be to develop in Section I the basic theory itself and to give some brief account of its empirical relevance. In Section II, we show how the theory can be used to answer the cost-of-capital question and how it permits us to develop a theory of investment of the firm under conditions of uncertainty. Throughout these sections the approach is essentially a partial-equilibrium one focusing on the firm and "industry." Accordingly, the "prices" of certain income streams will be treated as constant and given from outside the model, just as in the standard Marshallian analysis of the firm and industry the prices of all inputs and of all other products are taken as given. We have chosen to focus at this level rather than on the economy as a whole because it

is at the level of the firm and the industry that the interests of the various specialists concerned with the cost-of-capital problem come most closely together. Although the emphasis has thus been placed on partial-equilibrium analysis, the results obtained also provide the essential building blocks for a general equilibrium model which shows how those prices which are here taken as given, are themselves determined. For reasons of space, however, and because the material is of interest in its own right, the presentation of the general equilibrium model which rounds out the analysis must be deferred to a subsequent paper.

I. *The Valuation of Securities, Leverage, and the Cost of Capital*

A. *The Capitalization Rate for Uncertain Streams*

As a starting point, consider an economy in which all physical assets are owned by corporations. For the moment, assume that these corporations can finance their assets by issuing common stock only; the introduction of bond issues, or their equivalent, as a source of corporate funds is postponed until the next part of this section.

The physical assets held by each firm will yield to the owners of the firm—its stockholders—a stream of "profits" over time; but the elements of this series need not be constant and in any event are uncertain. This stream of income, and hence the stream accruing to any share of common stock, will be regarded as extending indefinitely into the future. We assume, however, that the mean value of the stream over time, or average profit per unit of time, is finite and represents a random variable subject to a (subjective) probability distribution. We shall refer to the average value over time of the stream accruing to a given share as the return of that share; and to the mathematical expectation of this average as the expected return of the share.[6] Although individual investors may have different views as to the shape of the probability distri-

[6] These propositions can be restated analytically as follows: The assets of the ith firm generate a stream:

$$X_i(1), X_i(2) \cdots X_i(T)$$

whose elements are random variables subject to the joint probability distribution:

$$\chi_i[X_i(1), X_i(2) \cdots X_i(t)].$$

The return to the ith firm is defined as:

$$X_i = \lim_{T \to \infty} \frac{1}{T} \sum_{t=1}^{T} X_i(t).$$

X_i is itself a random variable with a probability distribution $\Phi_i(X_i)$ whose form is determined uniquely by χ_i. The expected return $\bar{X}_i$ is defined as $\bar{X}_i = E(X_i) = \int_{X_i} X_i \Phi_i(X_i) dX_i$. If N_i is the number of shares outstanding, the return of the ith share is $x_i = (1/N) X_i$ with probability distribution $\phi_i(x_i) dx_i = \Phi_i(Nx_i) d(Nx_i)$ and expected value $\bar{x}_i = (1/N) \bar{X}_i$.

bution of the return of any share, we shall assume for simplicity that they are at least in agreement as to the expected return.[7]

This way of characterizing uncertain streams merits brief comment. Notice first that the stream is a stream of profits, not dividends. As will become clear later, as long as management is presumed to be acting in the best interests of the stockholders, retained earnings can be regarded as equivalent to a fully subscribed, pre-emptive issue of common stock. Hence, for present purposes, the division of the stream between cash dividends and retained earnings in any period is a mere detail. Notice also that the uncertainty attaches to the mean value over time of the stream of profits and should not be confused with variability over time of the successive elements of the stream. That variability and uncertainty are two totally different concepts should be clear from the fact that the elements of a stream can be variable even though known with certainty. It can be shown, furthermore, that whether the elements of a stream are sure or uncertain, the effect of variability per se on the valuation of the stream is at best a second-order one which can safely be neglected for our purposes (and indeed most others too).[8]

The next assumption plays a strategic role in the rest of the analysis. We shall assume that firms can be divided into "equivalent return" classes such that the return on the shares issued by any firm in any given class is proportional to (and hence perfectly correlated with) the return on the shares issued by any other firm in the same class. This assumption implies that the various shares within the same class differ, at most, by a "scale factor." Accordingly, if we adjust for the difference in scale, by taking the *ratio* of the return to the expected return, the probability distribution of that ratio is identical for all shares in the class. It follows that all relevant properties of a share are uniquely characterized by specifying (1) the class to which it belongs and (2) its expected return.

The significance of this assumption is that it permits us to classify firms into groups within which the shares of different firms are "homogeneous," that is, perfect substitutes for one another. We have, thus, an analogue to the familiar concept of the industry in which it is the commodity produced by the firms that is taken as homogeneous. To complete this analogy with Marshallian price theory, we shall assume in the

[7] To deal adequately with refinements such as differences among investors in estimates of expected returns would require extensive discussion of the theory of portfolio selection. Brief references to these and related topics will be made in the succeeding article on the general equilibrium model.

[8] The reader may convince himself of this by asking how much he would be willing to rebate to his employer for the privilege of receiving his annual salary in equal monthly installments rather than in irregular amounts over the year. See also J. M. Keynes [10, esp. pp. 53–54].

analysis to follow that the shares concerned are traded in perfect markets under conditions of atomistic competition.[9]

From our definition of homogeneous classes of stock it follows that in equilibrium in a perfect capital market the price per dollar's worth of expected return must be the same for all shares of any given class. Or, equivalently, in any given class the price of every share must be proportional to its expected return. Let us denote this factor of proportionality for any class, say the kth class, by $1/\rho_k$. Then if p_j denotes the price and $\bar{x}_j$ is the expected return per share of the jth firm in class k, we must have:

$$p_j = \frac{1}{\rho_k} \bar{x}_j; \tag{1}$$

or, equivalently,

$$\frac{\bar{x}_j}{p_j} = \rho_k \text{ a constant for all firms } j \text{ in class } k. \tag{2}$$

The constants ρ_k (one for each of the k classes) can be given several economic interpretations: (a) From (2) we see that each ρ_k is the expected rate of return of any share in class k. (b) From (1) $1/\rho_k$ is the price which an investor has to pay for a dollar's worth of expected return in the class k. (c) Again from (1), by analogy with the terminology for perpetual bonds, ρ_k can be regarded as the market rate of capitalization for the expected value of the uncertain streams of the kind generated by the kth class of firms.[10]

B. *Debt Financing and Its Effects on Security Prices*

Having developed an apparatus for dealing with uncertain streams we can now approach the heart of the cost-of-capital problem by dropping the assumption that firms cannot issue bonds. The introduction of debt-financing changes the market for shares in a very fundamental way. Because firms may have different proportions of debt in their capi-

[9] Just what our classes of stocks contain and how the different classes can be identified by outside observers are empirical questions to which we shall return later. For the present, it is sufficient to observe: (1) Our concept of a class, while not identical to that of the industry is at least closely related to it. Certainly the basic characteristics of the probability distributions of the returns on assets will depend to a significant extent on the product sold and the technology used. (2) What are the appropriate class boundaries will depend on the particular problem being studied. An economist concerned with general tendencies in the market, for example, might well be prepared to work with far wider classes than would be appropriate for an investor planning his portfolio, or a firm planning its financial strategy.

[10] We cannot, on the basis of the assumptions so far, make any statements about the relationship or spread between the various ρ's or capitalization rates. Before we could do so we would have to make further specific assumptions about the way investors believe the probability distributions vary from class to class, as well as assumptions about investors' preferences as between the characteristics of different distributions.

tal structure, shares of different companies, even in the same class, can give rise to different probability distributions of returns. In the language of finance, the shares will be subject to different degrees of financial risk or "leverage" and hence they will no longer be perfect substitutes for one another.

To exhibit the mechanism determining the relative prices of shares under these conditions, we make the following two assumptions about the nature of bonds and the bond market, though they are actually stronger than is necessary and will be relaxed later: (1) All bonds (including any debts issued by households for the purpose of carrying shares) are assumed to yield a constant income per unit of time, and this income is regarded as certain by all traders regardless of the issuer. (2) Bonds, like stocks, are traded in a perfect market, where the term perfect is to be taken in its usual sense as implying that any two commodities which are perfect substitutes for each other must sell, in equilibrium, at the same price. It follows from assumption (1) that all bonds are in fact perfect substitutes up to a scale factor. It follows from assumption (2) that they must all sell at the same price per dollar's worth of return, or what amounts to the same thing must yield the same rate of return. This rate of return will be denoted by r and referred to as the rate of interest or, equivalently, as the capitalization rate for sure streams. We now can derive the following two basic propositions with respect to the valuation of securities in companies with different capital structures:

Proposition I. Consider any company j and let $\overline{X}_j$ stand as before for the expected return on the assets owned by the company (that is, its expected profit before deduction of interest). Denote by D_j the market value of the debts of the company; by S_j the market value of its common shares; and by $V_j \equiv S_j + D_j$ the market value of all its securities or, as we shall say, the market value of the firm. Then, our Proposition I asserts that we must have in equilibrium:

$$V_j \equiv (S_j + D_j) = \overline{X}_j / \rho_k, \text{ for any firm } j \text{ in class } k. \quad (3)$$

That is, the *market value of any firm is independent of its capital structure and is given by capitalizing its expected return at the rate ρ_k appropriate to its class.*

This proposition can be stated in an equivalent way in terms of the firm's "average cost of capital," $\overline{X}_j / V_j$, which is the ratio of its expected return to the market value of all its securities. Our proposition then is:

$$\frac{\overline{X}_j}{(S_j + D_j)} \equiv \frac{\overline{X}_j}{V_j} = \rho_k, \text{ for any firm } j, \text{ in class } k. \quad (4)$$

That is, *the average cost of capital to any firm is completely independent of*

its capital structure and is equal to the capitalization rate of a pure equity stream of its class.

To establish Proposition I we will show that as long as the relations (3) or (4) do not hold between any pair of firms in a class, arbitrage will take place and restore the stated equalities. We use the term arbitrage advisedly. For if Proposition I did not hold, an investor could buy and sell stocks and bonds in such a way as to exchange one income stream for another stream, identical in all relevant respects but selling at a lower price. The exchange would therefore be advantageous to the investor quite independently of his attitudes toward risk.[11] As investors exploit these arbitrage opportunities, the value of the overpriced shares will fall and that of the underpriced shares will rise, thereby tending to eliminate the discrepancy between the market values of the firms.

By way of proof, consider two firms in the same class and assume for simplicity only, that the expected return, $\bar{X}$, is the same for both firms. Let company 1 be financed entirely with common stock while company 2 has some debt in its capital structure. Suppose first the value of the levered firm, V_2, to be larger than that of the unlevered one, V_1. Consider an investor holding s_2 dollars' worth of the shares of company 2, representing a fraction α of the total outstanding stock, S_2. The return from this portfolio, denoted by Y_2, will be a fraction α of the income available for the stockholders of company 2, which is equal to the total return X_2 less the interest charge, rD_2. Since under our assumption of homogeneity, the anticipated total return of company 2, X_2, is, under all circumstances, the same as the anticipated total return to company 1, X_1, we can hereafter replace X_2 and X_1 by a common symbol X. Hence, the return from the initial portfolio can be written as:

$$Y_2 = \alpha(X - rD_2). \tag{5}$$

Now suppose the investor sold his αS_2 worth of company 2 shares and acquired instead an amount $s_1 = \alpha(S_2 + D_2)$ of the shares of company 1. He could do so by utilizing the amount αS_2 realized from the sale of his initial holding and borrowing an additional amount αD_2 on his own credit, pledging his new holdings in company 1 as a collateral. He would thus secure for himself a fraction $s_1/S_1 = \alpha(S_2 + D_2)/S_1$ of the shares and earnings of company 1. Making proper allowance for the interest payments on his personal debt αD_2, the return from the new portfolio, Y_1, is given by:

[11] In the language of the theory of choice, the exchanges are movements from inefficient points in the interior to efficient points on the boundary of the investor's opportunity set; and not movements between efficient points along the boundary. Hence for this part of the analysis nothing is involved in the way of specific assumptions about investor attitudes or behavior other than that investors behave consistently and prefer more income to less income, *ceteris paribus.*

$$(6) \qquad Y_1 = \frac{\alpha(S_2 + D_2)}{S_1} X - r\alpha D_2 = \alpha \frac{V_2}{V_1} X - r\alpha D_2.$$

Comparing (5) with (6) we see that as long as $V_2 > V_1$ we must have $Y_1 > Y_2$, so that it pays owners of company 2's shares to sell their holdings, thereby depressing S_2 and hence V_2; and to acquire shares of company 1, thereby raising S_1 and thus V_1. We conclude therefore that levered companies cannot command a premium over unlevered companies because investors have the opportunity of putting the equivalent leverage into their portfolio directly by borrowing on personal account.

Consider now the other possibility, namely that the market value of the levered company V_2 is less than V_1. Suppose an investor holds initially an amount s_1 of shares of company 1, representing a fraction α of the total outstanding stock, S_1. His return from this holding is:

$$Y_1 = \frac{s_1}{S_1} X = \alpha X.$$

Suppose he were to exchange this initial holding for another portfolio, also worth s_1, but consisting of s_2 dollars of stock of company 2 and of d dollars of bonds, where s_2 and d are given by:

$$(7) \qquad s_2 = \frac{S_2}{V_2} s_1, \qquad d = \frac{D_2}{V_2} s_1.$$

In other words the new portfolio is to consist of stock of company 2 and of bonds in the proportions S_2/V_2 and D_2/V_2, respectively. The return from the stock in the new portfolio will be a fraction s_2/S_2 of the total return to stockholders of company 2, which is $(X - rD_2)$, and the return from the bonds will be rd. Making use of (7), the total return from the portfolio, Y_2, can be expressed as follows:

$$Y_2 = \frac{s_2}{S_2}(X - rD_2) + rd = \frac{s_1}{V_2}(X - rD_2) + r\frac{D_2}{V_2} s_1 = \frac{s_1}{V_2} X = \alpha \frac{S_1}{V_2} X$$

(since $s_1 = \alpha S_1$). Comparing Y_2 with Y_1 we see that, if $V_2 < S_1 \equiv V_1$, then Y_2 will exceed Y_1. Hence it pays the holders of company 1's shares to sell these holdings and replace them with a mixed portfolio containing an appropriate fraction of the shares of company 2.

The acquisition of a mixed portfolio of stock of a levered company j and of bonds in the proportion S_j/V_j and D_j/V_j respectively, may be regarded as an operation which "undoes" the leverage, giving access to an appropriate fraction of the unlevered return X_j. It is this possibility of undoing leverage which prevents the value of levered firms from being consistently less than those of unlevered firms, or more generally prevents the average cost of capital $\bar{X}_j/V_j$ from being systematically higher for levered than for nonlevered companies in the same class.

Since we have already shown that arbitrage will also prevent V_2 from being larger than V_1, we can conclude that in equilibrium we must have $V_2 = V_1$, as stated in Proposition I.

Proposition II. From Proposition I we can derive the following proposition concerning the rate of return on common stock in companies whose capital structure includes some debt: the expected rate of return or yield, i, on the stock of any company j belonging to the kth class is a linear function of leverage as follows:

$$i_j = \rho_k + (\rho_k - r) D_j/S_j. \tag{8}$$

That is, *the expected yield of a share of stock is equal to the appropriate capitalization rate ρ_k for a pure equity stream in the class, plus a premium related to financial risk equal to the debt-to-equity ratio times the spread between ρ_k and r.* Or equivalently, the market price of any share of stock is given by capitalizing its expected return at the continuously variable rate i_j of (8).[12]

A number of writers have stated close equivalents of our Proposition I although by appealing to intuition rather than by attempting a proof and only to insist immediately that the results were not applicable to the actual capital markets.[13] Proposition II, however, so far as we have been able to discover is new.[14] To establish it we first note that, by definition, the expected rate of return, i, is given by:

$$i_j \equiv \frac{\overline{X}_j - rD_j}{S_j}. \tag{9}$$

From Proposition I, equation (3), we know that:

$$\overline{X}_j = \rho_k(S_j + D_j).$$

Substituting in (9) and simplifying, we obtain equation (8).

[12] To illustrate, suppose $\overline{X} = 1000$, $D = 4000$, $r = 5$ per cent and $\rho_k = 10$ per cent. These values imply that $V = 10{,}000$ and $S = 6000$ by virtue of Proposition I. The expected yield or rate of return per share is then:

$$i = \frac{1000 - 200}{6000} = .1 + (.1 - .05)\frac{4000}{6000} = 13\tfrac{1}{3} \text{ per cent.}$$

[13] See, for example, J. B. Williams [21, esp. pp. 72–73]; David Durand [3]; and W. A. Morton [15]. None of these writers describe in any detail the mechanism which is supposed to keep the average cost of capital constant under changes in capital structure. They seem, however, to be visualizing the equilibrating mechanism in terms of switches by investors between stocks and bonds as the yields of each get out of line with their "riskiness." This is an argument quite different from the pure arbitrage mechanism underlying our proof, and the difference is crucial. Regarding Proposition I as resting on investors' attitudes toward risk leads inevitably to a misunderstanding of many factors influencing relative yields such as, for example, limitations on the portfolio composition of financial institutions. See below, esp. Section I.D.

[14] Morton does make reference to a linear yield function but only "... for the sake of simplicity and because the particular function used makes no essential difference in my conclusions" [15, p. 443, note 2].

C. *Some Qualifications and Extensions of the Basic Propositions*

The methods and results developed so far can be extended in a number of useful directions, of which we shall consider here only three: (1) allowing for a corporate profits tax under which interest payments are deductible; (2) recognizing the existence of a multiplicity of bonds and interest rates; and (3) acknowledging the presence of market imperfections which might interfere with the process of arbitrage. The first two will be examined briefly in this section with some further attention given to the tax problem in Section II. Market imperfections will be discussed in Part D of this section in the course of a comparison of our results with those of received doctrines in the field of finance.

Effects of the Present Method of Taxing Corporations. The deduction of interest in computing taxable corporate profits will prevent the arbitrage process from making the value of all firms in a given class proportional to the expected returns generated by their physical assets. Instead, it can be shown (by the same type of proof used for the original version of Proposition I) that the market values of firms in each class must be proportional in equilibrium to their expected return net of taxes (that is, to the sum of the interest paid and expected net stockholder income). This means we must replace each $\bar{X}_j$ in the original versions of Propositions I and II with a new variable $\bar{X}_j^\tau$ representing the total income net of taxes generated by the firm:

$$\bar{X}_j^\tau \equiv (\bar{X}_j - rD_j)(1 - \tau) + rD_j \equiv \bar{\pi}_j^\tau + rD_j, \tag{10}$$

where $\bar{\pi}_j^\tau$ represents the expected net income accruing to the common stockholders and τ stands for the average rate of corporate income tax.[15]

After making these substitutions, the propositions, when adjusted for taxes, continue to have the same form as their originals. That is, Proposition I becomes:

$$\frac{\bar{X}_j^\tau}{V_j} = \rho_k^\tau, \text{ for any firm in class } k, \tag{11}$$

and Proposition II becomes

$$i_j \equiv \frac{\bar{\pi}_j^\tau}{S_j} = \rho_j^\tau + (\rho_k^\tau - r)D_j/S_j \tag{12}$$

where ρ_k^τ is the capitalization rate for income net of taxes in class k.

Although the form of the propositions is unaffected, certain interpretations must be changed. In particular, the after-tax capitalization rate

[15] For simplicity, we shall ignore throughout the tiny element of progression in our present corporate tax and treat τ as a constant independent of $(X_j - rD_j)$.

ρ_k^τ can no longer be identified with the "average cost of capital" which is $\rho_k = \overline{X}_j / V_j$. The difference between ρ_k^τ and the "true" average cost of capital, as we shall see, is a matter of some relevance in connection with investment planning within the firm (Section II). For the description of market behavior, however, which is our immediate concern here, the distinction is not essential. To simplify presentation, therefore, and to preserve continuity with the terminology in the standard literature we shall continue in this section to refer to ρ_k^τ as the average cost of capital, though strictly speaking this identification is correct only in the absence of taxes.

Effects of a Plurality of Bonds and Interest Rates. In existing capital markets we find not one, but a whole family of interest rates varying with maturity, with the technical provisions of the loan and, what is most relevant for present purposes, with the financial condition of the borrower.[16] Economic theory and market experience both suggest that the yields demanded by lenders tend to increase with the debt-equity ratio of the borrowing firm (or individual). If so, and if we can assume as a first approximation that this yield curve, $r = r\ (D/S)$, whatever its precise form, is the same for all borrowers, then we can readily extend our propositions to the case of a rising supply curve for borrowed funds.[17]

Proposition I is actually unaffected in form and interpretation by the fact that the rate of interest may rise with leverage; while the average cost of *borrowed* funds will tend to increase as debt rises, the average cost of funds from *all* sources will still be independent of leverage (apart from the tax effect). This conclusion follows directly from the ability of those who engage in arbitrage to undo the leverage in any financial structure by acquiring an appropriately mixed portfolio of bonds and stocks. Because of this ability, the ratio of earnings (*before* interest charges) to market value—*i.e.*, the average cost of capital from all

[16] We shall not consider here the extension of the analysis to encompass the time structure of interest rates. Although some of the problems posed by the time structure can be handled within our comparative statics framework, an adequate discussion would require a separate paper.

[17] We can also develop a theory of bond valuation along lines essentially parallel to those followed for the case of shares. We conjecture that the curve of bond yields as a function of leverage will turn out to be a nonlinear one in contrast to the linear function of leverage developed for common shares. However, we would also expect that the rate of increase in the yield on new issues would not be substantial in practice. This relatively slow rise would reflect the fact that interest rate increases by themselves can never be completely satisfactory to creditors as compensation for their increased risk. Such increases may simply serve to raise r so high relative to ρ that they become self-defeating by giving rise to a situation in which even normal fluctuations in earnings may force the company into bankruptcy. The difficulty of borrowing more, therefore, tends to show up in the usual case not so much in higher rates as in the form of increasingly stringent restrictions imposed on the company's management and finances by the creditors; and ultimately in a complete inability to obtain new borrowed funds, at least from the institutional investors who normally set the standards in the market for bonds.

sources—must be the same for all firms in a given class.[18] In other words, the increased cost of borrowed funds as leverage increases will tend to be offset by a corresponding reduction in the yield of common stock. This seemingly paradoxical result will be examined more closely below in connection with Proposition II.

A significant modification of Proposition I would be required only if the yield curve $r=r(D/S)$ were different for different borrowers, as might happen if creditors had marked preferences for the securities of a particular class of debtors. If, for example, corporations as a class were able to borrow at lower rates than individuals having equivalent personal leverage, then the average cost of capital to corporations might fall slightly, as leverage increased over some range, in reflection of this differential. In evaluating this possibility, however, remember that the relevant interest rate for our arbitrage operators is the rate on brokers' loans and, historically, that rate has not been noticeably higher than representative corporate rates.[19] The operations of holding companies and investment trusts which can borrow on terms comparable to operating companies represent still another force which could be expected to wipe out any marked or prolonged advantages from holding levered stocks.[20]

Although Proposition I remains unaffected as long as the yield curve is the same for all borrowers, the relation between common stock yields and leverage will no longer be the strictly linear one given by the original Proposition II. If r increases with leverage, the yield i will still tend to

[18] One normally minor qualification might be noted. Once we relax the assumption that all bonds have certain yields, our arbitrage operator faces the danger of something comparable to "gambler's ruin." That is, there is always the possibility that an otherwise sound concern—one whose long-run expected income is greater than its interest liability—might be forced into liquidation as a result of a run of temporary losses. Since reorganization generally involves costs, and because the operation of the firm may be hampered during the period of reorganization with lasting unfavorable effects on earnings prospects, we might perhaps expect heavily levered companies to sell at a slight discount relative to less heavily indebted companies of the same class.

[19] Under normal conditions, moreover, a substantial part of the arbitrage process could be expected to take the form, not of having the arbitrage operators go into debt on personal account to put the required leverage into their portfolios, but simply of having them reduce the amount of corporate bonds they already hold when they acquire underpriced unlevered stock. Margin requirements are also somewhat less of an obstacle to maintaining any desired degree of leverage in a portfolio than might be thought at first glance. Leverage could be largely restored in the face of higher margin requirements by switching to stocks having more leverage at the corporate level.

[20] An extreme form of inequality between borrowing and lending rates occurs, of course, in the case of preferred stocks, which can not be directly issued by individuals on personal account. Here again, however, we would expect that the operations of investment corporations plus the ability of arbitrage operators to sell off their holdings of preferred stocks would act to prevent the emergence of any substantial premiums (for this reason) on capital structures containing preferred stocks. Nor are preferred stocks so far removed from bonds as to make it impossible for arbitrage operators to approximate closely the risk and leverage of a corporate preferred stock by incurring a somewhat smaller debt on personal account.

rise as D/S increases, but at a decreasing rather than a constant rate. Beyond some high level of leverage, depending on the exact form of the interest function, the yield may even start to fall.[21] The relation between i and D/S could conceivably take the form indicated by the curve MD

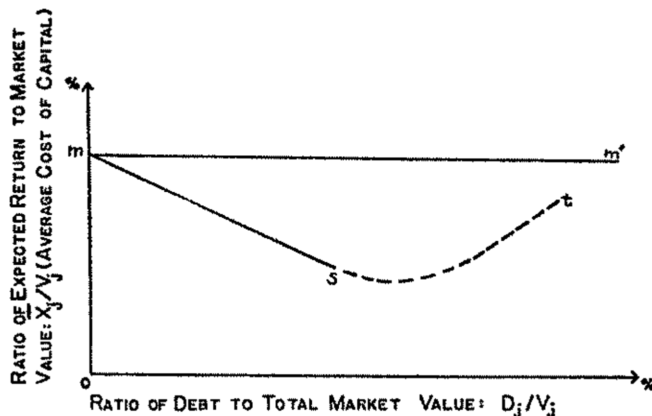

FIGURE 1

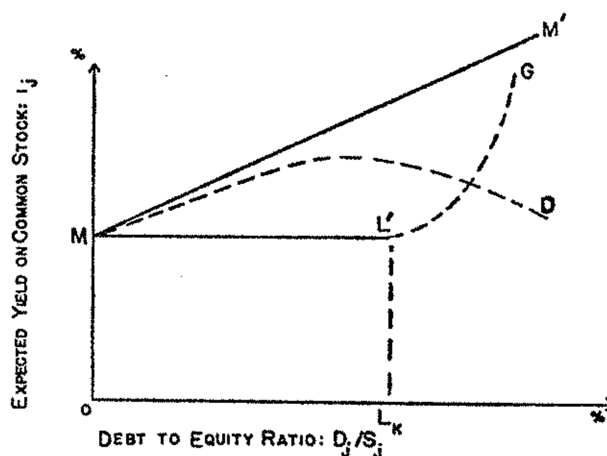

FIGURE 2

in Figure 2, although in practice the curvature would be much less pronounced. By contrast, with a constant rate of interest, the relation would be linear throughout as shown by line MM', Figure 2.

The downward sloping part of the curve MD perhaps requires some

[21] Since new lenders are unlikely to permit this much leverage (*cf.* note 17), this range of the curve is likely to be occupied by companies whose earnings prospects have fallen substantially since the time when their debts were issued.

comment since it may be hard to imagine why investors, other than those who like lotteries, would purchase stocks in this range. Remember, however, that the yield curve of Proposition II is a consequence of the more fundamental Proposition I. Should the demand by the risk-lovers prove insufficient to keep the market to the peculiar yield-curve MD, this demand would be reinforced by the action of arbitrage operators. The latter would find it profitable to own a pro-rata share of the firm as a whole by holding its stock *and* bonds, the lower yield of the shares being thus offset by the higher return on bonds.

D. *The Relation of Propositions I and II to Current Doctrines*

The propositions we have developed with respect to the valuation of firms and shares appear to be substantially at variance with current doctrines in the field of finance. The main differences between our view and the current view are summarized graphically in Figures 1 and 2. Our Proposition I [equation (4)] asserts that the average cost of capital, $\bar{X}_j^\tau/V_j$, is a constant for all firms j in class k, independently of their financial structure. This implies that, if we were to take a sample of firms in a given class, and if for each firm we were to plot the ratio of expected return to market value against some measure of leverage or financial structure, the points would tend to fall on a horizontal straight line with intercept ρ_k^τ, like the solid line mm' in Figure 1.[22] From Proposition I we derived Proposition II [equation (8)] which, taking the simplest version with r constant, asserts that, for all firms in a class, the relation between the yield on common stock and financial structure, measured by D_j/S_j, will approximate a straight line with slope $(\rho_k^\tau - r)$ and intercept ρ_k^τ. This relationship is shown as the solid line MM' in Figure 2, to which reference has been made earlier.[23]

By contrast, the conventional view among finance specialists appears to start from the proposition that, other things equal, the earnings-price ratio (or its reciprocal, the times-earnings multiplier) of a firm's common stock will normally be only slightly affected by "moderate" amounts of debt in the firm's capital structure.[24] Translated into our no-

[22] In Figure 1 the measure of leverage used is D_j/V_j (the ratio of debt to market value) rather than D_j/S_j (the ratio of debt to equity), the concept used in the analytical development. The D_j/V_j measure is introduced at this point because it simplifies comparison and contrast of our view with the traditional position.

[23] The line MM' in Figure 2 has been drawn with a positive slope on the assumption that $\rho_k^\tau > r$, a condition which will normally obtain. Our Proposition II as given in equation (8) would continue to be valid, of course, even in the unlikely event that $\rho_k^\tau < r$, but the slope of MM' would be negative.

[24] See, *e.g.*, Graham and Dodd [6, pp. 464–66]. Without doing violence to this position, we can bring out its implications more sharply by ignoring the qualification and treating the yield as a virtual constant over the relevant range. See in this connection the discussion in Durand [3, esp. pp. 225–37] of what he calls the "net income method" of valuation.

tation, it asserts that for any firm j in the class k,

$$\frac{\overline{X}_j^\tau - rD_j}{S_j} \equiv \frac{\bar{\pi}_j^\tau}{S_j} = i_k^*, \text{ a constant for } \frac{D_j}{S_j} \leq L_k \tag{13}$$

or, equivalently,

$$S_j = \bar{\pi}_j^\tau / i_k^*. \tag{14}$$

Here i_k^* represents the capitalization rate or earnings-price ratio on the common stock and L_k denotes some amount of leverage regarded as the maximum "reasonable" amount for firms of the class k. This assumed relationship between yield and leverage is the horizontal solid line ML' of Figure 2. Beyond L', the yield will presumably rise sharply as the market discounts "excessive" trading on the equity. This possibility of a rising range for high leverages is indicated by the broken-line segment $L'G$ in the figure.[25]

If the value of shares were really given by (14) then the over-all market value of the firm must be:

$$V_j \equiv S_j + D_j = \frac{\overline{X}_j^\tau - rD_j}{i_k^*} + D_j = \frac{\overline{X}_j^\tau}{i_k^*} + \frac{(i_k^* - r)D_j}{i_k^*}. \tag{16}$$

That is, for any given level of expected total returns after taxes ($\overline{X}_j^\tau$) and assuming, as seems natural, that $i_k^* > r$, the value of the firm must tend to *rise* with debt;[26] whereas our Proposition I asserts that the value of the firm is completely independent of the capital structure. Another way of contrasting our position with the traditional one is in terms of the cost of capital. Solving (16) for $\overline{X}_j^\tau / V_j$ yields:

$$\overline{X}_j^\tau / V_j = i_k^* - (i_k^* - r)D_j / V_j. \tag{17}$$

According to this equation, the average cost of capital is not independent of capital structure as we have argued, but should tend to *fall* with increasing leverage, at least within the relevant range of moderate debt ratios, as shown by the line ms in Figure 1. Or to put it in more familiar terms, debt-financing should be "cheaper" than equity-financing if not carried too far.

When we also allow for the possibility of a rising range of stock yields for large values of leverage, we obtain a U-shaped curve like mst in

[25] To make it easier to see some of the implications of this hypothesis as well as to prepare the ground for later statistical testing, it will be helpful to assume that the notion of a critical limit on leverage beyond which yields rise rapidly, can be epitomized by a quadratic relation of the form:

$$\bar{\pi}_j^\tau / S_j = i_k^* + \beta(D_j/S_j) + \alpha(D_j/S_j)^2, \qquad \alpha > 0. \tag{15}$$

[26] For a typical discussion of how a promoter can, supposedly, increase the market value of a firm by recourse to debt issues, see W. J. Eiteman [4, esp. pp. 11–13].

Figure 1.[27] That a yield-curve for stocks of the form *ML'G* in Figure 2 implies a U-shaped cost-of-capital curve has, of course, been recognized by many writers. A natural further step has been to suggest that the capital structure corresponding to the trough of the U is an "optimal capital structure" towards which management ought to strive in the best interests of the stockholders.[28] According to our model, by contrast, no such optimal structure exists—all structures being equivalent from the point of view of the cost of capital.

Although the falling, or at least U-shaped, cost-of-capital function is in one form or another the dominant view in the literature, the ultimate rationale of that view is by no means clear. The crucial element in the position—that the expected earnings-price ratio of the stock is largely unaffected by leverage up to some conventional limit—is rarely even regarded as something which requires explanation. It is usually simply taken for granted or it is merely asserted that this is the way the market behaves.[29] To the extent that the constant earnings-price ratio has a rationale at all we suspect that it reflects in most cases the feeling that moderate amounts of debt in "sound" corporations do not really add very much to the "riskiness" of the stock. Since the extra risk is slight, it seems natural to suppose that firms will not have to pay noticeably higher yields in order to induce investors to hold the stock.[30]

A more sophisticated line of argument has been advanced by David Durand [3, pp. 231–33]. He suggests that because insurance companies and certain other important institutional investors are restricted to debt securities, nonfinancial corporations are able to borrow from them at interest rates which are lower than would be required to compensate

[27] The U-shaped nature of the cost-of-capital curve can be exhibited explicitly if the yield curve for shares as a function of leverage can be approximated by equation (15) of footnote 25. From that equation, multiplying both sides by S_j we obtain: $\bar{\pi}_j^\tau = \bar{X}_j^\tau - rD_j = i_k^* S_j + \beta D_j + \alpha D_j^2/S_j$ or, adding and subtracting $i_k^* D_k$ from the right-hand side and collecting terms,

$$\bar{X}_j^\tau = i_k^*(S_j + D_j) + (\beta + r - i_k^*)D_j + \alpha D^2_j/S_j. \tag{18}$$

Dividing (18) by V_j gives an expression for the cost of capital:

$$\bar{X}_j^\tau/V_j = i_k^* - (i_k^* - r - \beta)D_j/V_j + \alpha D_j^2/S_jV_j = i_k^* - (i_k^* - r - \beta)D_j/V_j + \alpha(D_j/V_j)^2/(1 - D_j/V_j) \tag{19}$$

which is clearly U-shaped since α is supposed to be positive.

[28] For a typical statement see S. M. Robbins [16, p. 307]. See also Graham and Dodd [6, pp. 468–74].

[29] See *e.g.*, Graham and Dodd [6, p. 466].

[30] A typical statement is the following by Guthmann and Dougall [7, p. 245]: "Theoretically it might be argued that the increased hazard from using bonds and preferred stocks would counterbalance this additional income and so prevent the common stock from being more attractive than when it had a lower return but fewer prior obligations. In practice, the extra earnings from 'trading on the equity' are often regarded by investors as more than sufficient to serve as a 'premium for risk' when the proportions of the several securities are judiciously mixed."

creditors in a free market. Thus, while he would presumably agree with our conclusions that stockholders could not gain from leverage in an unconstrained market, he concludes that they can gain under present institutional arrangements. This gain would arise by virtue of the "safety superpremium" which lenders are willing to pay corporations for the privilege of lending.[31]

The defective link in both the traditional and the Durand version of the argument lies in the confusion between investors' subjective risk preferences and their objective market opportunities. Our Propositions I and II, as noted earlier, do not depend for their validity on any assumption about individual risk preferences. Nor do they involve any assertion as to what is an adequate compensation to investors for assuming a given degree of risk. They rely merely on the fact that a given commodity cannot consistently sell at more than one price in the market; or more precisely that the price of a commodity representing a "bundle" of two other commodities cannot be consistently different from the weighted average of the prices of the two components (the weights being equal to the proportion of the two commodities in the bundle).

An analogy may he helpful at this point. The relations between $1/\rho_k$, the price per dollar of an unlevered stream in class k; $1/r$, the price per dollar of a sure stream, and $1/i_j$, the price per dollar of a levered stream j, in the kth class, are essentially the same as those between, respectively, the price of whole milk, the price of butter fat, and the price of milk which has been thinned out by skimming off some of the butter fat. Our Proposition I states that a firm cannot reduce the cost of capital—*i.e.*, increase the market value of the stream it generates—by securing part of its capital through the sale of bonds, even though debt money appears to be cheaper. This assertion is equivalent to the proposition that, under perfect markets, a dairy farmer cannot in general earn more for the milk he produces by skimming some of the butter fat and selling it separately, even though butter fat per unit weight, sells for more than whole milk. The advantage from skimming the milk rather than selling whole milk would be purely illusory; for what would be gained from selling the high-priced butter fat would be lost in selling the low-priced residue of thinned milk. Similarly our Proposition II—that the price per dollar of a levered stream falls as leverage increases—is an ex-

[31] Like Durand, Morton [15] contends "that the actual market deviates from [Proposition I] by giving a changing over-all cost of money at different points of the [leverage] scale" (p. 443, note 2, inserts ours), but the basis for this contention is nowhere clearly stated. Judging by the great emphasis given to the lack of mobility of investment funds between stocks and bonds and to the psychological and institutional pressures toward debt portfolios (see pp. 444–51 and especially his discussion of the optimal capital structure on p. 453) he would seem to be taking a position very similar to that of Durand above.

act analogue of the statement that the price per gallon of thinned milk falls continuously as more butter fat is skimmed off.[32]

It is clear that this last assertion is true as long as butter fat is worth more per unit weight than whole milk, and it holds even if, for many consumers, taking a little cream out of the milk (adding a little leverage to the stock) does not detract noticeably from the taste (does not add noticeably to the risk). Furthermore the argument remains valid even in the face of instituional limitations of the type envisaged by Durand. For suppose that a large fraction of the population habitually dines in restaurants which are required by law to serve only cream in lieu of milk (entrust their savings to institutional investors who can only buy bonds). To be sure the price of butter fat will then tend to be higher in relation to that of skimmed milk than in the absence such restrictions (the rate of interest will tend to be lower), and this will benefit people who eat at home and who like skim milk (who manage their own portfolio and are able and willing to take risk). But it will still be the case that a farmer cannot gain by skimming some of the butter fat and selling it separately (firm cannot reduce the cost of capital by recourse to borrowed funds).[33]

Our propositions can be regarded as the extension of the classical theory of markets to the particular case of the capital markets. Those who hold the current view—whether they realize it or not—must as-

[32] Let M denote the quantity of whole milk, B/M the proportion of butter fat in the whole milk, and let p_M, p_B and p_α denote, respectively, the price per unit weight of whole milk, butter fat and thinned milk from which a fraction α of the butter fat has been skimmed off. We then have the fundamental perfect market relation:

$$p_\alpha(M - \alpha B) + p_B \alpha B = p_M M, \qquad 0 \leq \alpha \leq 1, \tag{a}$$

stating that total receipts will be the same amount $p_M M$, independently of the amount αB of butter fat that may have been sold separately. Since p_M corresponds to $1/\rho$, p_B to $1/r$, p_α to $1/i$, M to $\bar{X}$ and αB to rD, (a) is equivalent to Proposition I, $S+D=\bar{X}/\rho$. From (a) we derive:

$$p_\alpha = p_M \frac{M}{M - \alpha B} - p_B \frac{\alpha B}{M - \alpha B} \tag{b}$$

which gives the price of thinned milk as an explicit function of the proportion of butter fat skimmed off; the function decreasing as long as $p_B > p_M$. From (a) also follows:

$$1/p_\alpha = 1/p_M + (1/p_M - 1/p_B) \frac{p_B \alpha B}{p_\alpha(M - \alpha B)} \tag{c}$$

which is the exact analogue of Proposition II, as given by (8).

[33] The reader who likes parables will find that the analogy with interrelated commodity markets can be pushed a good deal farther than we have done in the text. For instance, the effect of changes in the market rate of interest on the over-all cost of capital is the same as the effect of a change in the price of butter on the price of whole milk. Similarly, just as the relation between the prices of skim milk and butter fat influences the kind of cows that will be reared, so the relation between i and r influences the kind of ventures that will be undertaken. If people like butter we shall have Guernseys; if they are willing to pay a high price for safety, this will encourage ventures which promise smaller but less uncertain streams per dollar of physical assets.

sume not merely that there are lags and frictions in the equilibrating process—a feeling we certainly share,[34] claiming for our propositions only that they describe the central tendency around which observations will scatter—but also that there are large and *systematic* imperfections in the market which permanently bias the outcome. This is an assumption that economists, at any rate, will instinctively eye with some skepticism.

In any event, whether such prolonged, systematic departures from equilibrium really exist or whether our propositions are better descriptions of long-run market behavior can be settled only by empirical research. Before going on to the theory of investment it may be helpful, therefore, to look at the evidence.

E. *Some Preliminary Evidence on the Basic Propositions*

Unfortunately the evidence which has been assembled so far is amazingly skimpy. Indeed, we have been able to locate only two recent studies—and these of rather limited scope—which were designed to throw light on the issue. Pending the results of more comprehensive tests which we hope will soon be available, we shall review briefly such evidence as is provided by the two studies in question: (1) an analysis of the relation between security yields and financial structure for some 43 large electric utilities by F. B. Allen [1], and (2) a parallel (unpublished) study by Robert Smith [19], for 42 oil companies designed to test whether Allen's rather striking results would be found in an industry with very different characteristics.[35] The Allen study is based on average figures for the years 1947 and 1948, while the Smith study relates to the single year 1953.

The Effect of Leverage on the Cost of Capital. According to the received view, as shown in equation (17) the average cost of capital, $\bar{X}^{\tau}/V$, should decline linearly with leverage as measured by the ratio D/V, at least through most of the relevant range.[36] According to Proposition I, the average cost of capital within a given class k should tend to have the same value ρ_k^{τ} independently of the degree of leverage. A simple test

[34] Several specific examples of the failure of the arbitrage mechanism can be found in Graham and Dodd [6, *e.g.*, pp. 646–48]. The price discrepancy described on pp. 646–47 is particularly curious since it persists even today despite the fact that a whole generation of security analysts has been brought up on this book!

[35] We wish to express our thanks to both writers for making available to us some of their original worksheets. In addition to these recent studies there is a frequently cited (but apparently seldom read) study by the Federal Communications Commission in 1938 [22] which purports to show the existence of an optimal capital structure or range of structures (in the sense defined above) for public utilities in the 1930's. By current standards for statistical investigations, however, this study cannot be regarded as having any real evidential value for the problem at hand.

[36] We shall simplify our notation in this section by dropping the subscript j used to denote a particular firm wherever this will not lead to confusion.

of the merits of the two alternative hypotheses can thus be carried out by correlating $\bar{X}^{\tau}/V$ with D/V. If the traditional view is correct, the correlation should be significantly negative; if our view represents a better approximation to reality, then the correlation should not be significantly different from zero.

Both studies provide information about the average value of D—the market value of bonds and preferred stock—and of V—the market value of all securities.[37] From these data we can readily compute the ratio D/V and this ratio (expressed as a percentage) is represented by the symbol d in the regression equations below. The measurement of the variable $\bar{X}^{\tau}/V$, however, presents serious difficulties. Strictly speaking, the numerator should measure the expected returns net of taxes, but this is a variable on which no direct information is available. As an approximation, we have followed both authors and used (1) the average value of actual net returns in 1947 and 1948 for Allen's utilities; and (2) actual net returns in 1953 for Smith's oil companies. Net return is defined in both cases as the sum of interest, preferred dividends and stockholders' income net of corporate income taxes. Although this approximation to expected returns is undoubtedly very crude, there is no reason to believe that it will systematically bias the test in so far as the sign of the regression coefficient is concerned. The roughness of the approximation, however, will tend to make for a wide scatter. Also contributing to the scatter is the crudeness of the industrial classification, since especially within the sample of oil companies, the assumption that all the firms belong to the same class in our sense, is at best only approximately valid.

Denoting by x our approximation to $\bar{X}^{\tau}/V$ (expressed, like d, as a percentage), the results of the tests are as follows:

$$\text{Electric Utilities} \quad x = \underset{(\pm .008)}{5.3 + .006d} \qquad r = .12$$

$$\text{Oil Companies} \quad x = \underset{(\pm .024)}{8.5 + .006d} \qquad r = .04.$$

The data underlying these equations are also shown in scatter diagram form in Figures 3 and 4.

The results of these tests are clearly favorable to our hypothesis.

[37] Note that for purposes of this test preferred stocks, since they represent an *expected* fixed obligation, are properly classified with bonds even though the tax status of preferred dividends is different from that of interest payments and even though preferred dividends are really fixed only as to their maximum in any year. Some difficulty of classification does arise in the case of convertible preferred stocks (and convertible bonds) selling at a substantial premium, but fortunately very few such issues were involved for the companies included in the two studies. Smith included bank loans and certain other short-term obligations (at book values) in his data on oil company debts and this treatment is perhaps open to some question. However, the amounts involved were relatively small and check computations showed that their elimination would lead to only minor differences in the test results.

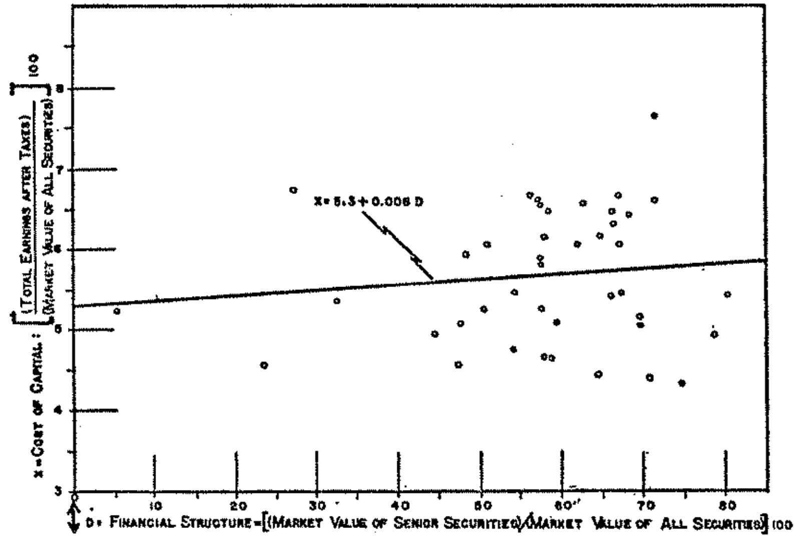

FIGURE 3. COST OF CAPITAL IN RELATION TO FINANCIAL STRUCTURE FOR 43 ELECTRIC UTILITIES, 1947–48

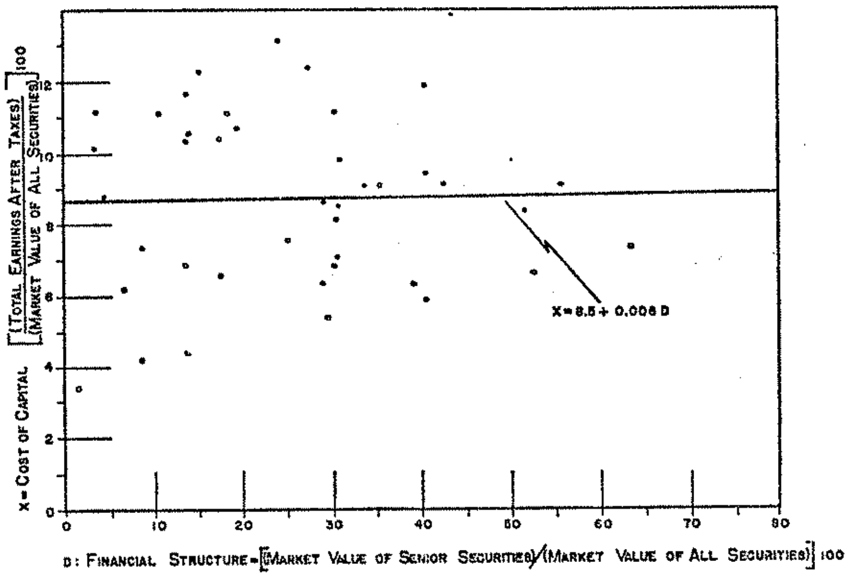

FIGURE 4. COST OF CAPITAL IN RELATION TO FINANCIAL STRUCTURE FOR 42 OIL COMPANIES, 1953

Both correlation coefficients are very close to zero and not statistically significant. Furthermore, the implications of the traditional view fail to be supported even with respect to the sign of the correlation. The data in short provide no evidence of any tendency for the cost of capital to fall as the debt ratio increases.[38]

It should also be apparent from the scatter diagrams that there is no hint of a curvilinear, U-shaped, relation of the kind which is widely believed to hold between the cost of capital and leverage. This graphical impression was confirmed by statistical tests which showed that for both industries the curvature was not significantly different from zero, its sign actually being opposite to that hypothesized.[39]

Note also that according to our model, the constant terms of the regression equations are measures of $\rho_k{}^\tau$, the capitalization rates for unlevered streams and hence the average cost of capital in the classes in question. The estimates of 8.5 per cent for the oil companies as against 5.3 per cent for electric utilities appear to accord well with a priori expectations, both in absolute value and relative spread.

The Effect of Leverage on Common Stock Yields. According to our Proposition II—see equation 12 and Figure 2—the expected yield on common stock, $\bar{\pi}^\tau/S$, in any given class, should tend to increase with leverage as measured by the ratio D/S. The relation should tend to be linear and with positive slope through most of the relevant range (as in the curve MM' of Figure 2), though it might tend to flatten out if we move

[38] It may be argued that a test of the kind used is biased against the traditional view. The fact that both sides of the regression equation are divided by the variable V which may be subject to random variation might tend to impart a positive bias to the correlation. As a check on the results presented in the text, we have, therefore, carried out a supplementary test based on equation (16). This equation shows that, if the traditional view is correct, the market value of a company should, for given $\bar{X}^\tau$, increase with debt through most of the relevant range; according to our model the market value should be uncorrelated with D, given $\bar{X}^\tau$. Because of wide variations in the size of the firms included in our samples, all variables must be divided by a suitable scale factor in order to avoid spurious results in carrying out a test of equation (16). The factor we have used is the book value of the firm denoted by A. The hypothesis tested thus takes the specific form:

$$V/A = a + b(\bar{X}^\tau/A) + c(D/A)$$

and the numerator of the ratio X^τ/A is again approximated by actual net returns. The partial correlation between V/A and D/A should now be positive according to the traditional view and zero according to our model. Although division by A should, if anything, bias the results in favor of the traditional hypothesis, the partial correlation turns out to be only .03 for the oil companies and −.28 for the electric utilities. Neither of these coefficients is significantly different from zero and the larger one even has the wrong sign.

[39] The tests consisted of fitting to the data the equation (19) of footnote 27. As shown there, it follows from the U-shaped hypothesis that the coefficient α of the variable $(D/V)^2/(1-D/V)$, denoted hereafter by d^*, should be significant and positive. The following regression equations and partials were obtained:

$$\text{Electric Utilities } x = 5.0 + .017d - .003d^*;\ r_{xd^*.d} = -.15$$

$$\text{Oil Companies } x = 8.0 + .05d - .03d^*;\ r_{xd^*.d} = -.14.$$

far enough to the right (as in the curve MD'), to the extent that high leverage tends to drive up the cost of senior capital. According to the conventional view, the yield curve as a function of leverage should be a horizontal straight line (like ML') through most of the relevant range; far enough to the right, the yield may tend to rise at an increasing rate. Here again, a straight-forward correlation—in this case between $\bar{\pi}^{\tau}/S$ and D/S—can provide a test of the two positions. If our view is correct, the correlation should be significantly positive; if the traditional view is correct, the correlation should be negligible.

Subject to the same qualifications noted above in connection with $\bar{X}^{\tau}$, we can approximate $\bar{\pi}^{\tau}$ by actual stockholder net income.[40] Letting z denote in each case the approximation to $\bar{\pi}^{\tau}/S$ (expressed as a percentage) and letting h denote the ratio D/S (also in percentage terms) the following results are obtained:

$$\text{Electric Utilities} \quad z = 6.6 + \underset{(+.004)}{.017h} \qquad r = .53$$

$$\text{Oil Companies} \quad z = 8.9 + \underset{(\pm .012)}{.051h} \qquad r = .53.$$

These results are shown in scatter diagram form in Figures 5 and 6.

Here again the implications of our analysis seem to be borne out by the data. Both correlation coefficients are positive and highly significant when account is taken of the substantial sample size. Furthermore, the estimates of the coefficients of the equations seem to accord reasonably well with our hypothesis. According to equation (12) the constant term should be the value of ρ_k^{τ} for the given class while the slope should be $(\rho_k^{\tau} - r)$. From the test of Proposition I we have seen that for the oil companies the mean value of ρ_k^{τ} could be estimated at around 8.7. Since the average yield of senior capital during the period covered was in the order of $3\frac{1}{2}$ per cent, we should expect a constant term of about 8.7 per cent and a slope of just over 5 per cent. These values closely approximate the regression estimates of 8.9 per cent and 5.1 per cent respectively. For the electric utilities, the yield of senior capital was also on the order of $3\frac{1}{2}$ per cent during the test years, but since the estimate of the mean value of ρ_k^{τ} from the test of Proposition I was 5.6 per cent,

[40] As indicated earlier, Smith's data were for the single year 1953. Since the use of a single year's profits as a measure of expected profits might be open to objection we collected profit data for 1952 for the same companies and based the computation of $\bar{\pi}^{\tau}/S$ on the average of the two years. The value of $\bar{\pi}^{\tau}/S$ was obtained from the formula:

$$\left(\text{net earnings in } 1952 \cdot \frac{\text{assets in '53}}{\text{assets in '52}} + \text{net earnings in '1953}\right)\frac{1}{2}$$
$$\div \text{(average market value of common stock in '53).}$$

The asset adjustment was introduced as rough allowance for the effects of possible growth in the size of the firm. It might be added that the correlation computed with $\bar{\pi}^{\tau}/S$ based on net profits in 1953 alone was found to be only slightly smaller, namely .50.

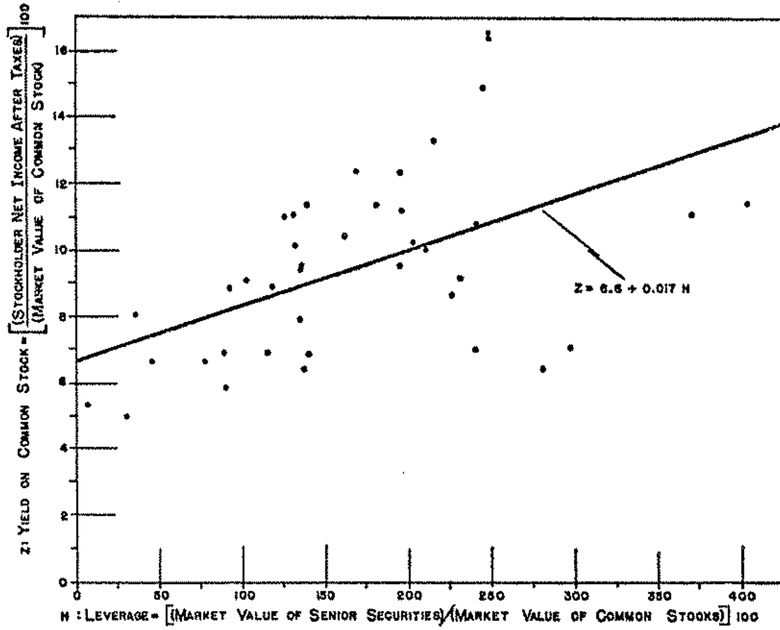

FIGURE 5. YIELD ON COMMON STOCK IN RELATION TO LEVERAGE FOR 43 ELECTRIC UTILITIES, 1947–48

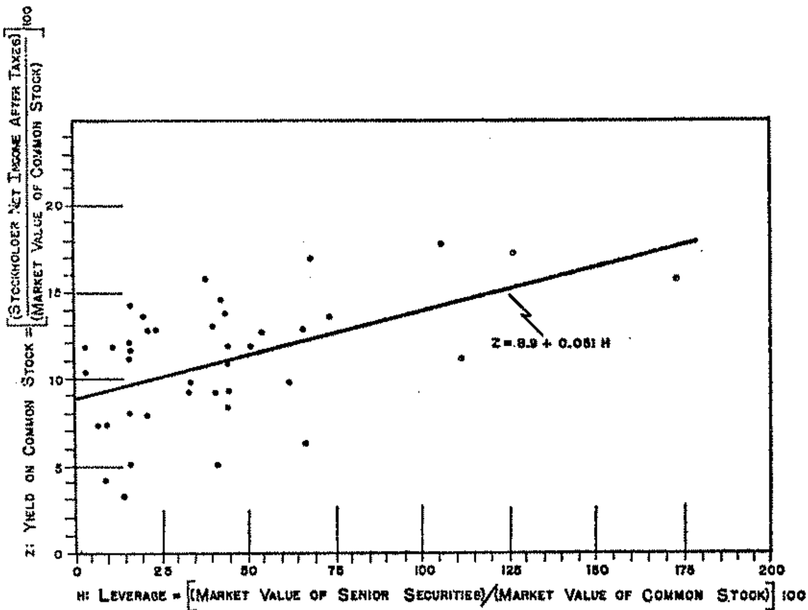

FIGURE 6. YIELD ON COMMON STOCK IN RELATION TO LEVERAGE FOR 42 OIL COMPANIES, 1952–53

the slope should be just above 2 per cent. The actual regression estimate for the slope of 1.7 per cent is thus somewhat low, but still within one standard error of its theoretical value. Because of this underestimate of the slope and because of the large mean value of leverage ($\bar{h}=160$ per cent) the regression estimate of the constant term, 6.6 per cent, is somewhat high, although not significantly different from the value of 5.6 per cent obtained in the test of Proposition I.

When we add a square term to the above equations to test for the presence and direction of curvature we obtain the following estimates:

$$\text{Electric Utilities} \quad z = 4.6 + .004h - .007h^2$$

$$\text{Oil Companies} \quad z = 8.5 + .072h - .016h^2.$$

For both cases the curvature is negative. In fact, for the electric utilities, where the observations cover a wider range of leverage ratios, the negative coefficient of the square term is actually significant at the 5 per cent level. Negative curvature, as we have seen, runs directly counter to the traditional hypothesis, whereas it can be readily accounted for by our model in terms of rising cost of borrowed funds.[41]

In summary, the empirical evidence we have reviewed seems to be broadly consistent with our model and largely inconsistent with traditional views. Needless to say much more extensive testing will be required before we can firmly conclude that our theory describes market behavior. Caution is indicated especially with regard to our test of Proposition II, partly because of possible statistical pitfalls[42] and partly because not all the factors that might have a systematic effect on stock yields have been considered. In particular, no attempt was made to test the possible influence of the dividend pay-out ratio whose role has tended to receive a great deal of attention in current research and thinking. There are two reasons for this omission. First, our main objective has been to assess the prima facie tenability of *our* model, and in this model, based as it is on rational behavior by investors, dividends per se play no role. Second, in a world in which the policy of dividend stabilization is widespread, there is no simple way of disentangling the true effect of dividend payments on stock prices from their apparent effect,

[41] That the yield of senior capital tended to rise for utilities as leverage increased is clearly shown in several of the scatter diagrams presented in the published version of Allen's study. This significant negative curvature between stock yields and leverage for utilities may be partly responsible for the fact, previously noted, that the constant in the linear regression is somewhat higher and the slope somewhat lower than implied by equation (12). Note also in connection with the estimate of ρ_k^τ that the introduction of the quadratic term reduces the constant considerably, pushing it in fact below the a priori expectation of 5.6, though the difference is again not statistically significant.

[42] In our test, *e.g.*, the two variables z and h are both ratios with S appearing in the denominator, which may tend to impart a positive bias to the correlation (*cf.* note 38). Attempts were made to develop alternative tests, but although various possibilities were explored, we have so far been unable to find satisfactory alternatives.

the latter reflecting only the role of dividends as a proxy measure of long-term earning anticipations.[43] The difficulties just mentioned are further compounded by possible interrelations between dividend policy and leverage.[44]

II. *Implications of the Analysis for the Theory of Investment*

A. *Capital Structure and Investment Policy*

On the basis of our propositions with respect to cost of capital and financial structure (and for the moment neglecting taxes), we can derive the following simple rule for optimal investment policy by the firm:

Proposition III. If a firm in class k is acting in the best interest of the stockholders at the time of the decision, it will exploit an investment opportunity if and only if the rate of return on the investment, say ρ^*, is as large as or larger than ρ_k. That is, *the cut-off point for investment in the firm will in all cases be ρ_k and will be completely unaffected by the type of security used to finance the investment.* Equivalently, we may say that regardless of the financing used, the marginal cost of capital to a firm is equal to the average cost of capital, which is in turn equal to the capitalization rate for an unlevered stream in the class to which the firm belongs.[45]

To establish this result we will consider the three major financing alternatives open to the firm—bonds, retained earnings, and common stock issues—and show that in each case an investment is worth undertaking if, and only if, $\rho^* \geqq \rho_k$.[46]

Consider first the case of an investment financed by the sale of bonds. We know from Proposition I that the market value of the firm before the investment was undertaken was:[47]

$$V_0 = \overline{X}_0/\rho_k \tag{20}$$

[43] We suggest that failure to appreciate this difficulty is responsible for many fallacious, or at least unwarranted, conclusions about the role of dividends.

[44] In the sample of electric utilities, there is a substantial negative correlation between yields and pay-out ratios, but also between pay-out ratios and leverage, suggesting that either the association of yields and leverage or of yields and pay-out ratios may be (at least partly) spurious. These difficulties however do not arise in the case of the oil industry sample. A preliminary analysis indicates that there is here no significant relation between leverage and pay-out ratios and also no significant correlation (either gross or partial) between yields and pay-out ratios.

[45] The analysis developed in this paper is essentially a comparative-statics, not a dynamic analysis. This note of caution applies with special force to Proposition III. Such problems as those posed by expected changes in r and in ρ_k over time will not be treated here. Although they are in principle amenable to analysis within the general framework we have laid out, such an undertaking is sufficiently complex to deserve separate treatment. *Cf.* note 17.

[46] The extension of the proof to other types of financing, such as the sale of preferred stock or the issuance of stock rights is straightforward.

[47] Since no confusion is likely to arise, we have again, for simplicity, eliminated the subscripts identifying the firm in the equations to follow. Except for ρ_k, the subscripts now refer to time periods.

and that the value of the common stock was:

$$S_0 = V_0 - D_0. \tag{21}$$

If now the firm borrows I dollars to finance an investment yielding ρ^* its market value will become:

$$V_1 = \frac{\overline{X}_0 + \rho^* I}{\rho_k} = V_0 + \frac{\rho^* I}{\rho_k} \tag{22}$$

and the value of its common stock will be:

$$S_1 = V_1 - (D_0 + I) = V_0 + \frac{\rho^* I}{\rho_k} - D_0 - I \tag{23}$$

or using equation 21,

$$S_1 = S_0 + \frac{\rho^* I}{\rho_k} - I. \tag{24}$$

Hence $S_1 \gtreqless S_0$ as $\rho^* \gtreqless \rho_k$.[48]

To illustrate, suppose the capitalization rate for uncertain streams in the kth class is 10 per cent and the rate of interest is 4 per cent. Then if a given company had an expected income of 1,000 and if it were financed entirely by common stock we know from Proposition I that the market value of its stock would be 10,000. Assume now that the managers of the firm discover an investment opportunity which will require an outlay of 100 and which is expected to yield 8 per cent. At first sight this might appear to be a profitable opportunity since the expected return is double the interest cost. If, however, the management borrows the necessary 100 at 4 per cent, the total expected income of the company rises to 1,008 and the market value of the firm to 10,080. But the firm now will have 100 of bonds in its capital structure so that, paradoxically, the market value of the stock must actually be reduced from 10,000 to 9,980 as a consequence of this apparently profitable investment. Or, to put it another way, the gains from being able to tap cheap, borrowed funds are more than offset for the stockholders by the market's discounting of the stock for the added leverage assumed.

Consider next the case of retained earnings. Suppose that in the course of its operations the firm acquired I dollars of cash (without impairing

[48] In the case of bond-financing the rate of interest on bonds does not enter explicitly into the decision (assuming the firm borrows at the market rate of interest). This is true, moreover, given the conditions outlined in Section I.C, even though interest rates may be an increasing function of debt outstanding. To the extent that the firm borrowed at a rate other than the market rate the two I's in equation (24) would no longer be identical and an additional gain or loss, as the case might be, would accrue to the shareholders. It might also be noted in passing that permitting the two I's in (24) to take on different values provides a simple method for introducing underwriting expenses into the analysis.

the earning power of its assets). If the cash is distributed as a dividend to the stockholders their wealth W_0, after the distribution will be:

$$W_0 = S_0 + I = \frac{\overline{X}_0}{\rho_k} - D_0 + I \tag{25}$$

where $\overline{X}_0$ represents the expected return from the assets exclusive of the amount I in question. If however the funds are retained by the company and used to finance new assets whose expected rate of return is ρ^*, then the stockholders' wealth would become:

$$W_1 = S_1 = \frac{\overline{X}_0 + \rho^* I}{\rho_k} - D_0 = S_0 + \frac{\rho^* I}{\rho_k}\,. \tag{26}$$

Clearly $W_1 \gtreqless W_0$ as $\rho^* \gtreqless \rho_k$ so that an investment financed by retained earnings raises the net worth of the owners if and only if $\rho^* > \rho_k$.[49]

Consider finally, the case of common-stock financing. Let P_0 denote the current market price per share of stock and assume, for simplicity, that this price reflects currently expected earnings only, that is, it does not reflect any future increase in earnings as a result of the investment under consideration.[50] Then if N is the original number of shares, the price per share is:

$$P_0 = S_0/N \tag{27}$$

and the number of new shares, M, needed to finance an investment of I dollars is given by:

$$M = \frac{I}{P_0}\,. \tag{28}$$

As a result of the investment the market value of the stock becomes:

$$S_1 = \frac{\overline{X}_0 + \rho^* I}{\rho_k} - D_0 = S_0 + \frac{\rho^* I}{\rho_k} = NP_0 + \frac{\rho^* I}{\rho_k}$$

and the price per share:

$$P_1 = \frac{S_1}{N + M} = \frac{1}{N + M}\left[NP_0 + \frac{\rho^* I}{\rho_k}\right]. \tag{29}$$

[49] The conclusion that ρ_k is the cut-off point for investments financed from internal funds applies not only to undistributed net profits, but to depreciation allowances (and even to the funds represented by the current sale value of any asset or collection of assets). Since the owners can earn ρ_k by investing funds elsewhere in the class, partial or total liquidating distributions should be made whenever the firm cannot achieve a marginal internal rate of return equal to ρ_k.

[50] If we assumed that the market price of the stock did reflect the expected higher future earnings (as would be the case if our original set of assumptions above were strictly followed) the analysis would differ slightly in detail, but not in essentials. The cut-off point for new investment would still be ρ_k, but where $\rho^* > \rho_k$ the gain to the original owners would be larger than if the stock price were based on the pre-investment expectations only.

Since by equation (28), $I=MP_0$, we can add MP_0 and subtract I from the quantity in bracket, obtaining:

$$(30)\qquad \begin{aligned} P_1 &= \frac{1}{N+M}\left[(N+M)P_0 + \frac{\rho^* - \rho_k}{\rho_k} I\right] \\ &= P_0 + \frac{1}{N+M}\,\frac{\rho^* - \rho_k}{\rho_k} I > P_0 \text{ if,} \end{aligned}$$

and only if, $\rho^* > \rho_k$.

Thus an investment financed by common stock is advantageous to the current stockholders if and only if its yield exceeds the capitalization rate ρ_k.

Once again a numerical example may help to illustrate the result and make it clear why the relevant cut-off rate is ρ_k and not the current yield on common stock, i. Suppose that ρ_k is 10 per cent, r is 4 per cent, that the original expected income of our company is 1,000 and that management has the opportunity of investing 100 having an expected yield of 12 per cent. If the original capital structure is 50 per cent debt and 50 per cent equity, and 1,000 shares of stock are initially outstanding, then, by Proposition I, the market value of the common stock must be 5,000 or 5 per share. Furthermore, since the interest bill is $.04\times 5{,}000 = 200$, the yield on common stock is $800/5{,}000 = 16$ per cent. It may then appear that financing the additional investment of 100 by issuing 20 shares to outsiders at 5 per share would dilute the equity of the original owners since the 100 promises to yield 12 per cent whereas the common stock is currently yielding 16 per cent. Actually, however, the income of the company would rise to 1,012; the value of the firm to 10,120; and the value of the common stock to 5,120. Since there are now 1,020 shares, each would be worth 5.02 and the wealth of the original stockholders would thus have been increased. What has happened is that the dilution in expected earnings per share (from .80 to .796) has been more than offset, in its effect upon the market price of the shares, by the decrease in leverage.

Our conclusion is, once again, at variance with conventional views,[51] so much so as to be easily misinterpreted. Read hastily, Proposition III seems to imply that the capital structure of a firm is a matter of indifference; and that, consequently, one of the core problems of corporate finance—the problem of the optimal capital structure for a firm—is no problem at all. It may be helpful, therefore, to clear up such possible misundertandings.

[51] In the matter of investment policy under uncertainty there is no single position which represents "accepted" doctrine. For a sample of current formulations, all very different from ours, see Joel Dean [2, esp. Ch. 3], M. Gordon and E. Shapiro [5], and Harry Roberts [17].

B. *Proposition III and Financial Planning by Firms*

Misinterpretation of the scope of Proposition III can be avoided by remembering that this Proposition tells us only that the type of instrument used to finance an investment is irrelevant to the question of whether or not the investment is worth while. This does not mean that the owners (or the managers) have no grounds whatever for preferring one financing plan to another; or that there are no other policy or technical issues in finance at the level of the firm.

That grounds for preferring one type of financial structure to another will still exist within the framework of our model can readily be seen for the case of common-stock financing. In general, except for something like a widely publicized oil-strike, we would expect the market to place very heavy weight on current and recent past earnings in forming expectations as to future returns. Hence, if the owners of a firm discovered a major investment opportunity which they felt would yield much more than ρ_k, they might well prefer not to finance it via common stock at the then ruling price, because this price may fail to capitalize the new venture. A better course would be a pre-emptive issue of stock (and in this connection it should be remembered that stockholders are free to borrow and buy). Another possibility would be to finance the project initially with debt. Once the project had reflected itself in increased actual earnings, the debt could be retired either with an equity issue at much better prices or through retained earnings. Still another possibility along the same lines might be to combine the two steps by means of a convertible debenture or preferred stock, perhaps with a progressively declining conversion rate. Even such a double-stage financing plan may possibly be regarded as yielding too large a share to outsiders since the new stockholders are, in effect, being given an interest in any similar opportunities the firm may discover in the future. If there is a reasonable prospect that even larger opportunities may arise in the near future and if there is some danger that borrowing now would preclude more borrowing later, the owners might find their interests best protected by splitting off the current opportunity into a separate subsidiary with independent financing. Clearly the problems involved in making the crucial estimates and in planning the optimal financial strategy are by no means trivial, even though they should have no bearing on the basic decision to invest (as long as $\rho^* \geqq \rho_k$).[52]

Another reason why the alternatives in financial plans may not be a matter of indifference arises from the fact that managers are concerned

[52] Nor can we rule out the possibility that the existing owners, if unable to use a financing plan which protects their interest, may actually prefer to pass up an otherwise profitable venture rather than give outsiders an "excessive" share of the business. It is presumably in situations of this kind that we could justifiably speak of a shortage of "equity capital," though this kind of market imperfection is likely to be of significance only for small or new firms.

with more than simply furthering the interest of the owners. Such other objectives of the management—which need not be necessarily in conflict with those of the owners—are much more likely to be served by some types of financing arrangements than others. In many forms of borrowing agreements, for example, creditors are able to stipulate terms which the current management may regard as infringing on its prerogatives or restricting its freedom to maneuver. The creditors might even be able to insist on having a direct voice in the formation of policy.[53] To the extent, therefore, that financial policies have these implications for the management of the firm, something like the utility approach described in the introductory section becomes relevant to financial (as opposed to investment) decision-making. It is, however, the utility functions of the managers per se and not of the owners that are now involved.[54]

In summary, many of the specific considerations which bulk so large in traditional discussions of corporate finance can readily be superimposed on our simple framework without forcing any drastic (and certainly no systematic) alteration of the conclusion which is our principal concern, namely that for investment decisions, the marginal cost of capital is ρ_k.

C. *The Effect of the Corporate Income Tax on Investment Decisions*

In Section I it was shown that when an unintegrated corporate income tax is introduced, the original version of our Proposition I,

$$\overline{X}/V = \rho_k = \text{a constant}$$

must be rewritten as:

$$\frac{(\overline{X} - rD)(1 - \tau) + rD}{V} \equiv \frac{\overline{X}^\tau}{V} = \rho_k{}^\tau = \text{a constant}. \tag{11}$$

Throughout Section I we found it convenient to refer to $\overline{X}^\tau/V$ as the cost of capital. The appropriate measure of the cost of capital relevant

[53] Similar considerations are involved in the matter of dividend policy. Even though the stockholders may be indifferent as to payout policy as long as investment policy is optimal, the management need not be so. Retained earnings involve far fewer threats to control than any of the alternative sources of funds and, of course, involve no underwriting expense or risk. But against these advantages management must balance the fact that sharp changes in dividend rates, which heavy reliance on retained earnings might imply, may give the impression that a firm's finances are being poorly managed, with consequent threats to the control and professional standing of the management.

[54] In principle, at least, this introduction of management's risk preferences with respect to financing methods would do much to reconcile the apparent conflict between Proposition III and such empirical findings as those of Modigliani and Zeman [14] on the close relation between interest rates and the ratio of new debt to new equity issues; or of John Lintner [12] on the considerable stability in target and actual dividend-payout ratios.

to investment decisions, however, is the ratio of the expected return *before* taxes to the market value, *i.e.*, $\bar{X}/V$. From (11) above we find:

$$\frac{\bar{X}}{V} = \frac{\rho_k^\tau - \tau_r(D/V)}{1-\tau} = \frac{\rho_k^\tau}{1-\tau}\left[1 - \frac{\tau r D}{\rho_k^\tau V}\right], \tag{31}$$

which shows that the cost of capital now depends on the debt ratio, decreasing, as D/V rises, at the constant rate $\tau r/(1-\tau)$.[55] Thus, with a corporate income tax under which interest is a deductible expense, gains can accrue to stockholders from having debt in the capital structure, even when capital markets are perfect. The gains however are small, as can be seen from (31), and as will be shown more explicitly below.

From (31) we can develop the tax-adjusted counterpart of Proposition III by interpreting the term D/V in that equation as the proportion of debt used in any additional financing of V dollars. For example, in the case where the financing is entirely by new common stock, $D=0$ and the required rate of return ρ_k^S on a venture so financed becomes:

$$\rho_k^S = \frac{\rho_k^\tau}{1-\tau}. \tag{32}$$

For the other extreme of pure debt financing $D=V$ and the required rate of return, ρ_k^D, becomes:

$$\rho_k^D = \frac{\rho_k^\tau}{1-\tau}\left[1 - \tau\frac{r}{\rho_k^\tau}\right] = \rho_k^S\left[1 - \tau\frac{r}{\rho_k^\tau}\right] = \rho_k^S - \frac{\tau}{1-\tau}r.^{56} \tag{33}$$

For investments financed out of retained earnings, the problem of defining the required rate of return is more difficult since it involves a comparison of the tax consequences to the individual stockholder of receiving a dividend versus having a capital gain. Depending on the time of realization, a capital gain produced by retained earnings may be taxed either at ordinary income tax rates, 50 per cent of these rates, 25 per

[55] Equation (31) is amenable, in principle, to statistical tests similar to those described in Section I.E. However we have not made any systematic attempt to carry out such tests so far, because neither the Allen nor the Smith study provides the required information. Actually, Smith's data included a very crude estimate of tax liability, and, using this estimate, we did in fact obtain a negative relation between $\bar{X}/V$ and D/V. However, the correlation (−.28) turned out to be significant only at about the 10 per cent level. While this result is not conclusive, it should be remembered that, according to our theory, the slope of the regression equation should be in any event quite small. In fact, with a value of τ in the order of .5, and values of ρ_k^τ and r in the order of 8.5 and 3.5 per cent respectively (*cf.* Section I.E) an increase in D/V from 0 to 60 per cent (which is, approximately, the range of variation of this variable in the sample) should tend to reduce the average cost of capital only from about 17 to about 15 per cent.

[56] This conclusion does not extend to preferred stocks even though they have been classed with debt issues previously. Since preferred dividends except for a portion of those of public utilities are not in general deductible from the corporate tax, the cut-off point for new financing via preferred stock is exactly the same as that for common stock.

cent, or zero, if held till death. The rate on any dividends received in the event of a distribution will also be a variable depending on the amount of other income received by the stockholder, and with the added complications introduced by the current dividend-credit provisions. If we assume that the managers proceed on the basis of reasonable estimates as to the average values of the relevant tax rates for the owners, then the required return for retained earnings $\rho_k{}^R$ can be shown to be:

$$\rho_k{}^R = \rho_k{}^\tau \frac{1}{1-\tau} \frac{1-\tau_d}{1-\tau_g} = \frac{1-\tau_d}{1-\tau_g} \rho_k{}^* \tag{34}$$

where τ_d is the assumed rate of personal income tax on dividends and τ_g is the assumed rate of tax on capital gains.

A numerical illustration may perhaps be helpful in clarifying the relationship between these required rates of return. If we take the following round numbers as representative order-of-magnitude values under present conditions: an after-tax capitalization rate $\rho_k{}^\tau$ of 10 per cent, a rate of interest on bonds of 4 per cent, a corporate tax rate of 50 per cent, a marginal personal income tax rate on dividends of 40 per cent (corresponding to an income of about $25,000 on a joint return), and a capital gains rate of 20 per cent (one-half the marginal rate on dividends), then the required rates of return would be: (1) 20 per cent for investments financed entirely by issuance of new common shares; (2) 16 per cent for investments financed entirely by new debt; and (3) 15 per cent for investments financed wholly from internal funds.

These results would seem to have considerable significance for current discussions of the effect of the corporate income tax on financial policy and on investment. Although we cannot explore the implications of the results in any detail here, we should at least like to call attention to the remarkably small difference between the "cost" of equity funds and debt funds. With the numerical values assumed, equity money turned out to be only 25 per cent more expensive than debt money, rather than something on the order of 5 times as expensive as is commonly supposed to be the case.[57] The reason for the wide difference is that the traditional

[57] See *e.g.*, D. T. Smith [18]. It should also be pointed out that our tax system acts in other ways to reduce the gains from debt financing. Heavy reliance on debt in the capital structure, for example, commits a company to paying out a substantial proportion of its income in the form of interest payments taxable to the owners under the personal income tax. A debt-free company, by contrast, can reinvest in the business all of its (smaller) net income and to this extent subject the owners only to the low capital gains rate (or possibly no tax at all by virtue of the loophole at death). Thus, we should expect a high degree of leverage to be of value to the owners, even in the case of closely held corporations, primarily in cases where their firm was not expected to have much need for additional funds to expand assets and earnings in the future. To the extent that opportunities for growth were available, as they presumably would be for most successful corporations, the interest of the stockholders would tend to be better served by a structure which permitted maximum use of retained earnings.

view starts from the position that debt funds are several times cheaper than equity funds even in the absence of taxes, with taxes serving simply to magnify the cost ratio in proportion to the corporate rate. By contrast, in our model in which the repercussions of debt financing on the value of shares are taken into account, the *only* difference in cost is that due to the tax effect, and its magnitude is simply the tax on the "grossed up" interest payment. Not only is this magnitude likely to be small but our analysis yields the further paradoxical implication that the stockholders' gain from, and hence incentive to use, debt financing is actually smaller the lower the rate of interest. In the extreme case where the firm could borrow for practically nothing, the advantage of debt financing would also be practically nothing.

III. *Conclusion*

With the development of Proposition III the main objectives we outlined in our introductory discussion have been reached. We have in our Propositions I and II at least the foundations of a theory of the valuation of firms and shares in a world of uncertainty. We have shown, moreover, how this theory can lead to an operational definition of the cost of capital and how that concept can be used in turn as a basis for rational investment decision-making within the firm. Needless to say, however, much remains to be done before the cost of capital can be put away on the shelf among the solved problems. Our approach has been that of static, partial equilibrium analysis. It has assumed among other things a state of atomistic competition in the capital markets and an ease of access to those markets which only a relatively small (though important) group of firms even come close to possessing. These and other drastic simplifications have been necessary in order to come to grips with the problem at all. Having served their purpose they can now be relaxed in the direction of greater realism and relevance, a task in which we hope others interested in this area will wish to share.

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Corporate Income Taxes and the Cost of Capital: A Correction

Franco Modigliani; Merton H. Miller

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equanimity a writing-down of the value of their reserves, or unless one is prepared to forego the possibility of exchange-rate adjustment, any major extension of the gold exchange standard is dependent upon the introduction of guarantees. It is misleading to suggest that the multiple key-currency system is an alternative to a guarantee, as implied by Roosa [6, pp. 5-7 and 9-12].

IV. *Conclusion*

The most noteworthy conclusion to be drawn from this analysis is that the successful operation of a multiple key-currency system would require both exchange guarantees and continuing cooperation between central bankers of a type that would effectively limit their choice as to the form in which they hold their reserves. Yet these are two of the conditions whose undesirability has frequently been held to be an obstacle to implementation of the alternative proposal to create a world central bank. The multiple key-currency proposal represents an attempt to avoid the impracticality supposedly associated with a world central bank, but if both proposals in fact depend on the fulfillment of similar conditions, it is difficult to convince oneself that the sacrifice of the additional liquidity that an almost closed system would permit is worth while. Unless, of course, the object of the exercise is to reinforce discipline rather than to expand liquidity.

JOHN WILLIAMSON*

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* The author is instructor in economics at Princeton University. He acknowledges the helpful comments of Fritz Machlup. Views expressed are those of the author alone.

Corporate Income Taxes and the Cost of Capital: A Correction

The purpose of this communication is to correct an error in our paper "The Cost of Capital, Corporation Finance and the Theory of Investment" (this *Review*, June 1958). In our discussion of the effects of the present method of taxing corporations on the valuation of firms, we said (p. 272):

> The deduction of interest in computing taxable corporate profits will prevent the arbitrage process from making the value of all firms in a given class proportional to the expected returns generated by their

physical assets. Instead, it can be shown (by the same type of proof used for the original version of Proposition I) that *the market values of firms in each class must be proportional in equilibrium to their expected returns net of taxes (that is, to the sum of the interest paid and expected net stockholder income)*. (Italics added.)

The statement in italics, unfortunately, is wrong. For even though one firm may have an *expected* return after taxes (our $\overline{X}^\tau$) twice that of another firm in the same risk-equivalent class, it will not be the case that the *actual* return after taxes (our X^τ) of the first firm will always be twice that of the second, if the two firms have different degrees of leverage.[1] And since the distribution of returns after taxes of the two firms will not be proportional, there can be no "arbitrage" process which forces their values to be proportional to their expected after-tax returns.[2] In fact, it can be shown—and this time it really will be shown—that "arbitrage" will make values within any class a function not only of expected after-tax returns, but of the tax rate and the degree of leverage. This means, among other things, that the tax advantages of debt financing are somewhat greater than we originally suggested and, to this extent, the quantitative difference between the valuations implied by our position and by the traditional view is narrowed. It still remains true, however, that under our analysis the tax advantages of debt are the *only* permanent advantages so that the gulf between the two views in matters of interpretation and policy is as wide as ever.

I. *Taxes, Leverage, and the Probability Distribution of After-Tax Returns*

To see how the distribution of after-tax earnings is affected by leverage, let us again denote by the random variable X the (long-run average) earnings before interest and taxes generated by the currently owned assets of a given firm in some stated risk class, k.[3] From our definition of a risk class it follows that X can be expressed in the form $\overline{X}Z$, where $\overline{X}$ is the expected value of X, and the random variable $Z=X/\overline{X}$, having the same value for all firms in class k, is a drawing from a distribution, say $f_k(Z)$. Hence the

[1] With some exceptions, which will be noted when they occur, we shall preserve here both the notation and the terminology of the original paper. A working knowledge of both on the part of the reader will be presumed.

[2] Barring, of course, the trivial case of universal linear utility functions. Note that in deference to Professor Durand (see his Comment on our paper and our reply, this *Review*, Sept. 1959, *49*, 639–69) we here and throughout use quotation marks when referring to arbitrage.

[3] Thus our X corresponds essentially to the familiar EBIT concept of the finance literature. The use of EBIT and related "income" concepts as the basis of valuation is strictly valid only when the underlying real assets are assumed to have perpetual lives. In such a case, of course, EBIT and "cash flow" are one and the same. This was, in effect, the interpretation of X we used in the original paper and we shall retain it here both to preserve continuity and for the considerable simplification it permits in the exposition. We should point out, however, that the perpetuity interpretation is much less restrictive than might appear at first glance. Before-tax cash flow and EBIT can also safely be equated even where assets have finite lives as soon as these assets attain a steady state age distribution in which annual replacements equal annual depreciation. The subject of finite lives of assets will be further discussed in connection with the problem of the cut-off rate for investment decisions.

random variable X^τ, measuring the after-tax return, can be expressed as:

$$(1) \quad X^\tau = (1-\tau)(X-R) + R = (1-\tau)X + \tau R = (1-\tau)\bar{X}Z + \tau R$$

where τ is the marginal corporate income tax rate (assumed equal to the average), and R is the interest bill. Since $E(X^\tau) \equiv \bar{X}^\tau = (1-\tau)\bar{X} + \tau R$ we can substitute $\bar{X}^\tau - \tau R$ for $(1-\tau)\bar{X}$ in (1) to obtain:

$$(2) \qquad X^\tau = (\bar{X}^\tau - \tau R)Z + \tau R = \bar{X}^\tau\left(1 - \frac{\tau R}{\bar{X}^\tau}\right)Z + \tau R.$$

Thus, if the tax rate is other than zero, the shape of the distribution of X^τ will depend not only on the "scale" of the stream $\bar{X}^\tau$ and on the distribution of Z, but also on the tax rate and the degree of leverage (one measure of which is $R/\bar{X}^\tau$). For example, if Var $(Z) = \sigma^2$, we have:

$$\text{Var}\,(X^\tau) = \sigma^2(\bar{X}^\tau)^2\left(1 - \tau\frac{R}{\bar{X}^\tau}\right)^2$$

implying that for given $\bar{X}^\tau$ the variance of after-tax returns is smaller, the higher τ and the degree of leverage.[4]

II. *The Valuation of After-Tax Returns*

Note from equation (1) that, from the investor's point of view, the long-run average stream of after-tax returns appears as a sum of two components: (1) an uncertain stream $(1-\tau)\bar{X}Z$; and (2) a sure stream τR.[5] This suggests that the equilibrium market value of the combined stream can be found by capitalizing each component separately. More precisely, let ρ^τ be the rate at which the market capitalizes the expected returns net of tax of an unlevered company of size $\bar{X}$ in class k, i.e.,

$$\rho^\tau = \frac{(1-\tau)\bar{X}}{V_U} \quad \text{or} \quad V_U = \frac{(1-\tau)\bar{X}}{\rho^\tau};$$[6]

[4] It may seem paradoxical at first to say that leverage *reduces* the variability of outcomes, but remember we are here discussing the variability of total returns, interest plus net profits. The variability of stockholder net profits will, of course, be greater in the presence than in the absence of leverage, though relatively less so than in an otherwise comparable world of no taxes. The reasons for this will become clearer after the discussion in the next section.

[5] The statement that τR—the tax saving per period on the interest payments—is a sure stream is subject to two qualifications. First, it must be the case that firms can always obtain the tax benefit of their interest deductions either by offsetting them directly against other taxable income in the year incurred; or, in the event no such income is available in any given year, by carrying them backward or forward against past or future taxable earnings; or, in the extreme case, by merger of the firm with (or its sale to) another firm that can utilize the deduction. Second, it must be assumed that the tax rate will remain the same. To the extent that neither of these conditions holds exactly then some uncertainty attaches even to the tax savings, though, of course, it is of a different kind and order from that attaching to the stream generated by the assets. For simplicity, however, we shall here ignore these possible elements of delay or of uncertainty in the tax saving; but it should be kept in mind that this neglect means that the subsequent valuation formulas overstate, if anything, the value of the tax saving for any given permanent level of debt.

[6] Note that here, as in our original paper, we neglect dividend policy and "growth" in the

and let r be the rate at which the market capitalizes the sure streams generated by debts. For simplicity, assume this rate of interest is a constant independent of the size of the debt so that

$$r = \frac{R}{D} \quad \text{or} \quad D = \frac{R}{r}.[7]$$

Then we would expect the value of a levered firm of size $\bar{X}$, with a permanent level of debt D_L in its capital structure, to be given by:

$$V_L = \frac{(1-\tau)\bar{X}}{\rho^\tau} + \frac{\tau R}{r} = V_U + \tau D_L.[8] \tag{3}$$

In our original paper we asserted instead that, within a risk class, market value would be proportional to expected after-tax return $\bar{X}^\tau$ (cf. our original equation [11]), which would imply:

$$V_L = \frac{\bar{X}^\tau}{\rho^\tau} = \frac{(1-\tau)\bar{X}}{\rho^\tau} + \frac{\tau R}{\rho^\tau} = V_U + \frac{r}{\rho^\tau}\tau D_L. \tag{4}$$

We will now show that if (3) does not hold, investors can secure a more efficient portfolio by switching from relatively overvalued to relatively undervalued firms. Suppose first that unlevered firms are overvalued or that

$$V_L - \tau D_L < V_U.$$

An investor holding m dollars of stock in the unlevered company has a right to the fraction m/V_U of the eventual outcome, i.e., has the uncertain income

$$Y_U = \left(\frac{m}{V_U}\right)(1-\tau)\bar{X}Z.$$

Consider now an alternative portfolio obtained by investing m dollars as follows: (1) the portion,

$$m\left(\frac{S_L}{S_L + (1-\tau)D_L}\right),$$

is invested in the stock of the levered firm, S_L; and (2) the remaining portion,

$$m\left(\frac{(1-\tau)D_L}{S_L + (1-\tau)D_L}\right),$$

sense of opportunities to invest at a rate of return greater than the market rate of return. These subjects are treated extensively in our paper, "Dividend Policy, Growth and the Valuation of Shares," *Jour. Bus.*, Univ. Chicago, Oct. 1961, 411–33.

[7] Here and throughout, the corresponding formulas when the rate of interest rises with leverage can be obtained merely by substituting $r(L)$ for r, where L is some suitable measure of leverage.

[8] The assumption that the debt is permanent is not necessary for the analysis. It is employed here both to maintain continuity with the original model and because it gives an upper bound on the value of the tax saving. See in this connection footnote 5 and footnote 9.

is invested in its bonds. The stock component entitles the holder to a fraction,

$$\frac{m}{S_L + (1-\tau)D_L},$$

of the net profits of the levered company or

$$\left(\frac{m}{S_L + (1-\tau)D_L}\right)[(1-\tau)(\overline{X}Z - R_L)].$$

The holding of bonds yields

$$\left(\frac{m}{S_L + (1-\tau)D_L}\right)[(1-\tau)R_L].$$

Hence the total outcome is

$$Y_L = \left(\frac{m}{(S_L + (1-\tau)D_L)}\right)[(1-\tau)\overline{X}Z]$$

and this will dominate the uncertain income Y_U if (and only if)

$$S_L + (1-\tau)D_L \equiv S_L + D_L - \tau D_L \equiv V_L - \tau D_L < V_U.$$

Thus, in equilibrium, V_U cannot exceed $V_L - \tau D_L$, for if it did investors would have an incentive to sell shares in the unlevered company and purchase the shares (and bonds) of the levered company.

Suppose now that $V_L - \tau D_L > V_U$. An investment of m dollars in the stock of the levered firm entitles the holder to the outcome

$$\begin{aligned} Y_L &= (m/S_L)[(1-\tau)(\overline{X}Z - R_L)] \\ &= (m/S_L)(1-\tau)\overline{X}Z - (m/S_L)(1-\tau)R_L. \end{aligned}$$

Consider the following alternative portfolio: (1) borrow an amount $(m/S_L)(1-\tau)D_L$ for which the interest cost will be $(m/S_L)(1-\tau)R_L$ (assuming, of course, that individuals and corporations can borrow at the same rate, r); and (2) invest m plus the amount borrowed, i.e.,

$$m + \frac{m(1-\tau)D_L}{S_L} = m\frac{S_L + (1-\tau)D_L}{S_L} = (m/S_L)[V_L - \tau D_L]$$

in the stock of the unlevered firm. The outcome so secured will be

$$(m/S_L)\left(\frac{V_L - \tau D_L}{V_U}\right)(1-\tau)\overline{X}Z.$$

Subtracting the interest charges on the borrowed funds leaves an income of

$$Y_U = (m/S_L)\left(\frac{V_L - \tau D_L}{V_U}\right)(1-\tau)\overline{X}Z - (m/S_L)(1-\tau)R_L$$

which will dominate Y_L if (and only if) $V_L - \tau D_L > V_U$. Thus, in equilibrium, both $V_L - \tau D_L > V_U$ and $V_L - \tau D_L < V_U$ are ruled out and (3) must hold.

III. *Some Implications of Formula* (3)

To see what is involved in replacing (4) with (3) as the rule of valuation, note first that both expressions make the value of the firm a function of leverage and the tax rate. The difference between them is a matter of the size and source of the tax advantages of debt financing. Under our original formulation, values within a class were strictly proportional to expected earnings after taxes. Hence the tax advantage of debt was due solely to the fact that the deductibility of interest payments implied a higher level of after-tax income for any given level of before-tax earnings (i.e., higher by the amount τR since $\bar{X}^{\tau}=(1-\tau)\bar{X}+\tau R$). Under the corrected rule (3), however, there is an additional gain due to the fact that the extra after-tax earnings, τR, represent a sure income in contrast to the uncertain outcome $(1-\tau)\bar{X}$. Hence τR is capitalized at the more favorable certainty rate, $1/r$, rather than at the rate for uncertain streams, $1/\rho^{\tau}$.[9]

Since the difference between (3) and (4) is solely a matter of the rate at which the tax savings on interest payments are capitalized, the required changes in all formulas and expressions derived from (4) are reasonably straightforward. Consider, first, the before-tax earnings yield, i.e., the ratio of expected earnings before interest and taxes to the value of the firm.[10] Dividing both sides of (3) by V and by $(1-\tau)$ and simplifying we obtain:

$$\frac{\bar{X}}{V}=\frac{\rho^{\tau}}{1-\tau}\left[1-\tau\frac{D}{V}\right] \tag{31.c}$$

which replaces our original equation (31) (p. 294). The new relation differs from the old in that the coefficient of D/V in the original (31) was smaller by a factor of r/ρ^{τ}.

Consider next the after-tax earnings yield, i.e., the ratio of interest payments plus profits after taxes to total market value.[11] This concept was discussed extensively in our paper because it helps to bring out more clearly the differences between our position and the traditional view, and because it facilitates the construction of empirical tests of the two hypotheses about the valuation process. To see what the new equation (3) implies for this yield we need merely substitute $\bar{X}^{\tau}-\tau R$ for $(1-\tau)\bar{X}$ in (3) obtaining:

[9] Remember, however, that in one sense formula (3) gives only an upper bound on the value of the firm since $\tau R/r=\tau D$ is an exact measure of the value of the tax saving only where both the tax rate and the level of debt are assumed to be fixed forever (and where the firm is certain to be able to use its interest deduction to reduce taxable income either directly or via transfer of the loss to another firm). Alternative versions of (3) can readily be developed for cases in which the debt is not assumed to be permanent, but rather to be outstanding only for some specified finite length of time. For reasons of space, we shall not pursue this line of inquiry here beyond observing that the shorter the debt period considered, the closer does the valuation formula approach our original (4). Hence, the latter is perhaps still of some interest if only as a lower bound.

[10] Following usage common in the field of finance we referred to this yield as the "average cost of capital." We feel now, however, that the term "before-tax earnings yield" would be preferable both because it is more immediately descriptive and because it releases the term "cost of capital" for use in discussions of optimal investment policy (in accord with standard usage in the capital budgeting literature).

[11] We referred to this yield as the "after-tax cost of capital." Cf. the previous footnote.

(5) $$V = \frac{\overline{X}^\tau - \tau R}{\rho^\tau} + \tau D = \frac{\overline{X}^\tau}{\rho^\tau} + \tau \frac{\rho^\tau - r}{\rho^\tau} D,$$

from which it follows that the after-tax earnings yield must be:

(11.c) $$\frac{\overline{X}^\tau}{V} = \rho^\tau - \tau(\rho^\tau - r)D/V.$$

This replaces our original equation (11) (p. 272) in which we had simply $\overline{X}^\tau/V = \rho^\tau$. Thus, in contrast to our earlier result, the corrected version (11.c) implies that even the after-tax yield is affected by leverage. The predicted rate of decrease of $\overline{X}^\tau/V$ with D/V, however, is still considerably smaller than under the naive traditional view, which, as we showed, implied essentially $\overline{X}^\tau/V = \rho^\tau - (\rho^\tau - r)D/V$. See our equation (17) and the discussion immediately preceding it (p. 277).[12] And, of course, (11.c) implies that the effect of leverage on $\overline{X}^\tau/V$ is *solely* a matter of the deductibility of interest payments whereas, under the traditional view, going into debt would lower the cost of capital regardless of the method of taxing corporate earnings.

Finally, we have the matter of the after-tax yield on *equity* capital, i.e., the ratio of net profits after taxes to the value of the shares.[13] By subtracting D from both sides of (5) and breaking $\overline{X}^\tau$ into its two components—expected net profits after taxes, $\bar{\pi}^\tau$, and interest payments, $R = rD$—we obtain after simplifying:

(6) $$S = V - D = \frac{\bar{\pi}^\tau}{\rho^\tau} - (1 - \tau)\left(\frac{\rho^\tau - r}{\rho^\tau}\right)D.$$

From (6) it follows that the after-tax yield on equity capital must be:

(12.c) $$\frac{\bar{\pi}^\tau}{S} = \rho^\tau + (1 - \tau)[\rho^\tau - r]D/S$$

which replaces our original equation (12), $\bar{\pi}^\tau/S = \rho^\tau + (\rho^\tau - r)D/S$ (p. 272). The new (12.c) implies an increase in the after-tax yield on equity capital as leverage increases which is smaller than that of our original (12) by a factor of $(1-\tau)$. But again, the linear increasing relation of the corrected (12.c) is still fundamentally different from the naive traditional view which asserts the cost of equity capital to be completely independent of leverage (at least as long as leverage remains within "conventional" industry limits).

IV. *Taxes and the Cost of Capital*

From these corrected valuation formulas we can readily derive corrected measures of the cost of capital in the capital budgeting sense of the minimum prospective yield an investment project must offer to be just worth

[12] The i_k^* of (17) is the same as ρ^τ in the present context, each measuring the ratio of net profits to the value of the shares (and hence of the whole firm) in an unlevered company of the class.

[13] We referred to this yield as the "after-tax cost of equity capital." Cf. footnote 9.

undertaking from the standpoint of the present stockholders. If we interpret earnings streams as perpetuities, as we did in the original paper, then we actually have two equally good ways of defining this minimum yield: either by the required increase in before-tax earnings, $d\bar{X}$, or by the required increase in earnings net of taxes, $d\bar{X}(1-\tau)$.[14] To conserve space, however, as well as to maintain continuity with the original paper, we shall concentrate here on the before-tax case with only brief footnote references to the net-of-tax concept.

Analytically, the derivation of the cost of capital in the above sense amounts to finding the minimum value of $d\bar{X}/dI$ for which $dV=dI$, where I denotes the level of new investment.[15] By differentiating (3) we see that:

$$\frac{dV}{dI} = \frac{1-\tau}{\rho^\tau}\frac{d\bar{X}}{dI} + \tau\frac{dD}{dI} \geq 1 \qquad \text{if } \frac{d\bar{X}}{dI} \geq \frac{1-\tau\frac{dD}{dI}}{1-\tau}\rho^\tau. \tag{7}$$

Hence the before tax required rate of return cannot be defined without reference to financial policy. In particular, for an investment considered as being financed entirely by new equity capital $dD/dI=0$ and the required rate of return or marginal cost of equity financing (neglecting flotation costs) would be:

$$\rho^S = \frac{\rho^\tau}{1-\tau}.$$

This result is the same as that in the original paper (see equation [32], p. 294) and is applicable to any other sources of financing where the remuneration to the suppliers of capital is not deductible for tax purposes. It applies, therefore, to preferred stock (except for certain partially deductible issues of public utilities) and would apply also to retained earnings were it not for the favorable tax treatment of capital gains under the personal income tax.

For investments considered as being financed entirely by new debt capital $dI=dD$ and we find from (7) that:

$$\rho^D = \rho^\tau \tag{33.c}$$

which replaces our original equation (33) in which we had:

$$\rho^D = \rho^S - \frac{\tau}{1-\tau}r. \tag{33}$$

[14] Note that we use the term "earnings net of taxes" rather than "earnings after taxes." We feel that to avoid confusion the latter term should be reserved to describe what will actually appear in the firm's accounting statements, namely the net cash flow including the tax savings on the interest (our $\bar{X}^\tau$). Since financing sources cannot in general be allocated to particular investments (see below), the after-tax or accounting concept is not useful for capital budgeting purposes, although it can be extremely useful for valuation equations as we saw in the previous section.

[15] Remember that when we speak of the minimum required yield on an investment we are referring in principle only to investments which increase the *scale* of the firm. That is, the new

Thus for borrowed funds (or any other tax-deductible source of capital) the marginal cost or before-tax required rate of return is simply the market rate of capitalization for net of tax unlevered streams and is thus independent of both the tax rate and the interest rate. This required rate is lower than that implied by our original (33), but still considerably higher than that implied by the traditional view (see esp. pp. 276–77 of our paper) under which the before-tax cost of borrowed funds is simply the interest rate, r.

Having derived the above expressions for the marginal costs of debt and equity financing it may be well to warn readers at this point that these expressions represent at best only the hypothetical extremes insofar as costs are concerned and that neither is directly usable as a cut-off criterion for investment planning. In particular, care must be taken to avoid falling into the famous "Liquigas" fallacy of concluding that if a firm intends to float a bond issue in some given year then its cut-off rate should be set that year at ρ^D; while, if the next issue is to be an equity one, the cut-off is ρ^S. The point is, of course, that no investment can meaningfully be regarded as 100 per cent equity financed if the firm makes any use of debt capital—and most firms do, not only for the tax savings, but for many other reasons having nothing to do with "cost" in the present static sense (cf. our original paper pp. 292–93). And no investment can meaningfully be regarded as 100 per cent debt financed when lenders impose strict limitations on the maximum amount a firm can borrow relative to its equity (and when most firms actually plan on normally borrowing less than this external maximum so as to leave themselves with an emergency reserve of unused borrowing power). Since the firm's long-run capital structure will thus contain both debt and equity capital, investment planning must recognize that, over the long pull, *all* of the firm's assets are really financed by a mixture of debt and equity capital even though only one kind of capital may be raised in any particular year. More precisely, if L^* denotes the firm's long-run "target" debt ratio (around which its actual debt ratio will fluctuate as it "alternately" floats debt issues and retires them with internal or external equity) then the firm can assume, to a first approximation at least, that for any particular investment $dD/dI = L^*$. Hence, the relevant marginal cost of capital for investment planning, which we shall here denote by ρ^*, is:

$$\rho^* = \frac{1 - \tau_L^*}{1 - \tau} \rho^\tau = \rho^S - \frac{\tau}{1 - \tau} \rho^D L^* = \rho^S(1 - L^*) + \rho^D L^*.$$

That is, the appropriate cost of capital for (repetitive) investment decisions over time is, to a first approximation, a weighted average of the costs of debt and equity financing, the weights being the proportions of each in the "target" capital structure.[16]

assets must be in the same "class" as the old. See in this connection, J. Hirshleifer, "Risk, the Discount Rate and Investment Decisions," *Am. Econ. Rev.*, May 1961, *51*, 112–20 (especially pp. 119–20). See also footnote 16.

[16] From the formulas in the text one can readily derive corresponding expressions for the required net-of-tax yield, or net-of-tax cost of capital for any given financing policy. Specifi-

V. *Some Concluding Observations*

Such, then, are the major corrections that must be made to the various formulas and valuation expressions in our earlier paper. In general, we can say that the force of these corrections has been to increase somewhat the estimate of the tax advantages of debt financing under our model and consequently to reduce somewhat the quantitative difference between the estimates of the effects of leverage under our model and under the naive traditional view. It may be useful to remind readers once again that the existence of a tax advantage for debt financing—even the larger advantage of the corrected version—does not necessarily mean that corporations should at all times seek to use the maximum possible amount of debt in their capital structures. For one thing, other forms of financing, notably retained earnings, may in some circumstances be cheaper still when the tax status of investors under the personal income tax is taken into account. More important, there are, as we pointed out, limitations imposed by lenders (see pp. 292–93), as well as many other dimensions (and kinds of costs) in real-world problems of financial strategy which are not fully comprehended within the framework of static equilibrium models, either our own or those of the traditional variety. These additional considerations, which are typically grouped under the rubric of "the need for preserving flexibility," will normally imply the maintenance by the corporation of a substantial reserve of untapped borrowing power. The tax advantage of debt may well tend to lower the optimal size of that reserve, but it is hard to believe that advantages of the size contemplated under our model could justify any substantial reduction, let alone their complete elimination. Nor do the data

cally, let $\bar{\rho}(L)$ denote the required net-of-tax yield for investment financed with a proportion of debt $L=dD/dI$. (More generally L denotes the proportion financed with tax deductible sources of capital.) Then from (7) we find:

$$\bar{\rho}(L) = (1-\tau)\frac{d\bar{X}}{dI} = (1-L\tau)\rho^{\tau} \tag{8}$$

and the various costs can be found by substituting the appropriate value for L. In particular, if we substitute in this formula the "target" leverage ratio, L^*, we obtain:

$$\bar{\rho}^* \equiv \bar{\rho}(L^*) = (1-\tau L^*)\rho^{\tau}$$

and $\bar{\rho}^*$ measures the average net-of-tax cost of capital in the sense described above.

Although the before-tax and the net-of-tax approaches to the cost of capital provide equally good criteria for investment decisions when assets are assumed to generate perpetual (i.e., non-depreciating) streams, such is not the case when assets are assumed to have finite lives (even when it is also assumed that the firm's assets are in a steady state age distribution so that our X or *EBIT is approximately the same as the net cash flow before taxes). See footnote* 3 above. In the latter event, the correct method for determining the desirability of an investment would be, in principle, to discount the net-of-tax stream at the net-of-tax cost of capital. Only under this net-of-tax approach would it be possible to take into account the deductibility of depreciation (and also to choose the most advantageous depreciation policy for tax purposes). Note that we say that the net-of-tax approach is correct "in principle" because, strictly speaking, nothing in our analysis (or anyone else's, for that matter) has yet established that it is indeed legitimate to "discount" an uncertain stream. One can hope that subsequent research will show the analogy to discounting under the certainty case is a valid one; but, at the moment, this is still only a hope.

indicate that there has in fact been a substantial increase in the use of debt (except relative to preferred stock) by the corporate sector during the recent high tax years.[17]

As to the differences between our modified model and the traditional one, we feel that they are still large in quantitative terms and still very much worth trying to detect. It is not only a matter of the two views having different implications for corporate financial policy (or even for national tax policy). But since the two positions rest on fundamentally different views about investor behavior and the functioning of the capital markets, the results of tests between them may have an important bearing on issues ranging far beyond the immediate one of the effects of leverage on the cost of capital.

FRANCO MODIGLIANI AND MERTON H. MILLER*

[17] See, e.g., Merton H. Miller, "The Corporate Income Tax and Corporate Financial Policies," in *Staff Reports to the Commission on Money and Credit* (forthcoming).

* The authors are, respectively, professor of industrial management, School of Industrial Management, Massachusetts Institute of Technology, and professor of finance, Graduate School of Business, University of Chicago.

Consumption, Savings and Windfall Gains: Comment

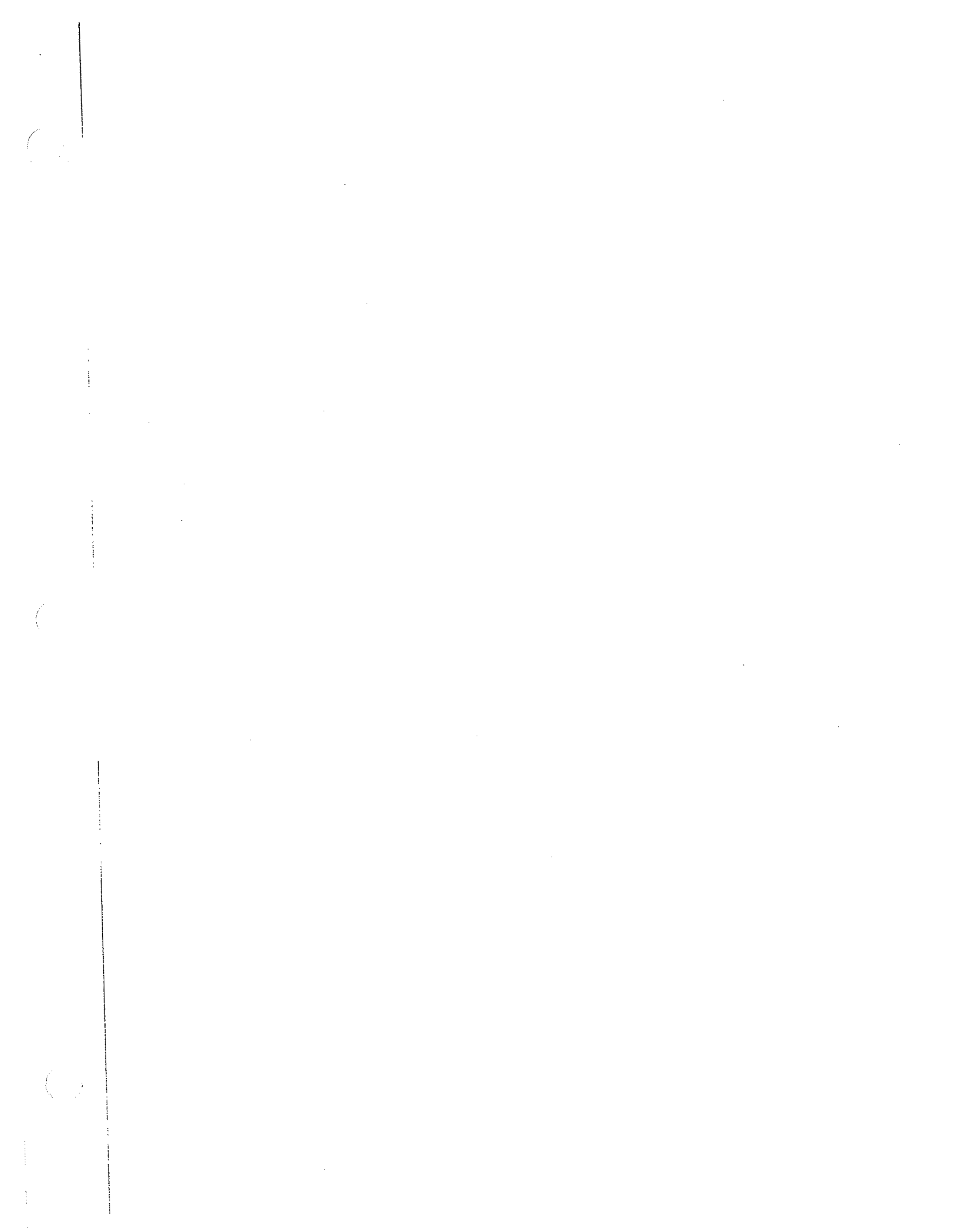
In her recent article in this *Review* [3], Margaret Reid attempted to answer previous articles by Bodkin [1] and Jones [2] challenging the validity of the permanent income hypothesis. Bodkin and Jones used income and expenditure data for those consumer units who had received the soldiers' bonus (National Service Life Insurance dividends) during 1950, the year of the urban consumption survey [4]. These bonuses were regarded as windfall gains for the purposes of their analyses.

Professor Reid used data from the same survey, but her windfall gains were represented by "other money receipts." These are defined as "inheritances and occasional large gifts of money from persons outside the family . . . and net receipts from the settlement of fire and accident policies" [4, Vol. 1, p. xxix]. She assumed that the soldiers' bonus was included, and that it accounted for about one-half of other money receipts. Here she made an unfortunate mistake in interpreting the data for the main critical purpose of her article.

The soldiers' bonus is not part of "other money receipts" (O) but rather a part of "disposable money income" (Y). It is the main part of an item in the disposable money income category called "military pay, allotments, and pensions" [4, Vol. 11, p. xxix].

This would appear to alter completely the relationship of Professor Reid's main findings to the Bodkin results and to change the windfall interpretation of the O variable. Surely, fire and accident policy settlements are not windfall income, but rather a (partial) recovery of real assets previously lost. Likewise, inheritances are probably best considered as a long-anticipated increase in assets—not an increase in transitory income.

The discovery of this error probably does not affect whatever importance Professor Reid's secondary finding may have: "*. . . the need, in any study of*



BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 95

The questions in this section refer to the testimony of Paul R. Moul:

With reference to Appendix E, please provide the individual company data and calculations used in developing the leverage factor. Please provide the data in hard copy and electronic formats (Microsoft Excel), with all data and equations left intact. In addition, please indicate the source of the data.

Response of Columbia Gas of Kentucky:

Please refer to the Excel spreadsheet that is attached for these data. The source of the data is the Annual Reports (or SEC Form 10-K) for each company, which can be obtained from the website of each company.

Gas Group
Year End 2005

Fiscal Year		AGL Resources 12/31/05	Atmos Energy 09/30/05	Laclede Group 09/30/05	New Jersey Resources 09/30/05	NICOR 12/31/05	Northwest Natural 12/31/05	Piedmont Natural Gas 10/31/05	South Jersey Industries 12/31/05	WGL Holdings 09/30/05	Average
Capitalization at Fair Values											
	Debt(D)	1,784,000	2,078,300	413,524	266,800	565,000	579,382	753,267	334,300	626,800	
	Preferred(P)	0	0	1,009	0	600	0	0	0	28,200	
	Equity(E)	2,704,737	2,275,238	687,879	1,266,571	1,736,715	942,660	1,814,675	844,548	1,564,870	1,537,544
	Total	4,488,737	4,353,538	1,102,412	1,533,371	2,302,315	1,522,042	2,567,942	1,178,848	2,219,870	
Capital Structure Ratios											
	Debt(D)	39.74%	47.74%	37.51%	17.40%	24.54%	38.07%	29.33%	28.36%	28.24%	32.33%
	Preferred(P)	0.00%	0.00%	0.09%	0.00%	0.03%	0.00%	0.00%	0.00%	1.27%	0.15%
	Equity(E)	60.26%	52.26%	62.40%	82.60%	75.43%	61.93%	70.67%	71.64%	70.49%	67.52%
	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Common Stock											
	Issued	77,700.000	80,539.401	21,172.009	28,183.032	44,179.972	27,579.296	76,698.000	28,982.440	48,704.340	
	Treasury	0.000	0.000	0.000	636.895	0.000	0.000	0.000	0.000	0.000	
	Outstanding	77,700.000	80,539.401	21,172.009	27,546.137	44,179.972	27,579.296	76,698.000	28,982.440	48,704.340	
	Year-End Price	$34.81	$28.25	$32.49	$45.98	$39.31	$34.18	$23.66	$29.14	$32.13	
Capitalization at Carrying Amounts						18.36					
	Debt(D)	1,615,000	2,190,142	380,433	264,800	540,000	529,500	660,000	321,400	584,200	
	Preferred(P)	0	0	1,009	0	600	0	0	0	28,200	
	Equity(E)	1,499,000	1,602,422	366,525	438,052	811,300	586,931	884,192	391,185	893,992	
	Total	3,114,000	3,792,564	747,967	702,852	1,351,900	1,116,431	1,544,192	712,585	1,506,392	
Capital Structure Ratios											
	Debt(D)	51.86%	57.75%	50.86%	37.68%	39.94%	47.43%	42.74%	45.10%	38.78%	45.79%
	Preferred(P)	0.00%	0.00%	0.13%	0.00%	0.04%	0.00%	0.00%	0.00%	1.87%	0.23%
	Equity(E)	48.14%	42.25%	49.00%	62.32%	60.01%	52.57%	57.26%	54.90%	59.35%	53.98%
	Total	100.00%	100.00%	99.99%	100.00%	99.99%	100.00%	100.00%	100.00%	100.00%	100.00%
Betas	Value Line	0.95	0.75	0.85	0.80	1.20	0.75	0.80	0.70	0.80	0.84

Hamada	Bl	=	Bu	[1+	(1 - t)	D/E	+	P/E	]
	0.84	=	Bu	[1+	(1-0.35)	0.4788	+	0.0022	]
	0.84	=	Bu	[1+	0.65	0.4788	+	0.0022	]
	0.84	=	Bu	1.3134					
	0.64	=	Bu						
Hamada	Bl	=	0.64	[1+	(1 - t)	D/E	+	P/E	]
	Bl	=	0.64	[1+	0.65	0.8484	+	0.0042	]
	Bl	=	0.64	1.5557					
	Bl	=	1.00						

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 95

The questions in this section refer to the testimony of Paul R. Moul:

With reference to Appendix E, please provide the individual company data and calculations used in developing the leverage factor. Please provide the data in hard copy and electronic formats (Microsoft Excel), with all data and equations left intact. In addition, please indicate the source of the data.

Response of Columbia Gas of Kentucky:

Please refer to the Excel spreadsheet that is attached for these data. The source of the data is the Annual Reports (or SEC Form 10-K) for each company, which can be obtained from the website of each company.

Gas Group
Year End 2005

Fiscal Year			AGL Resources 12/31/05	Atmos Energy 09/30/05	Laclede Group 09/30/05	New Jersey Resources 09/30/05	NICOR 12/31/05	Northwest Natural 12/31/05	Piedmont Natural Gas 10/31/05	South Jersey Industries 12/31/05	WGL Holdings 09/30/05	Average
Capitalization at Fair Values												
	Debt(D)		1,784,000	2,078,300	413,524	266,800	565,000	579,382	753,267	334,300	626,800	
	Preferred(P)		0	0	1,009	0	600	0	0	0	28,200	
	Equity(E)		2,704,737	2,275,238	687,879	1,266,571	1,736,715	942,660	1,814,675	844,548	1,564,870	1,537,544
	Total		4,488,737	4,353,538	1,102,412	1,533,371	2,302,315	1,522,042	2,567,942	1,178,848	2,219,870	
Capital Structure Ratios												
	Debt(D)		39.74%	47.74%	37.51%	17.40%	24.54%	38.07%	29.33%	28.36%	28.24%	32.33%
	Preferred(P)		0.00%	0.00%	0.09%	0.00%	0.03%	0.00%	0.00%	0.00%	1.27%	0.15%
	Equity(E)		60.26%	52.26%	62.40%	82.60%	75.43%	61.93%	70.67%	71.64%	70.49%	67.52%
	Total		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Common Stock												
	Issued		77,700.000	80,539.401	21,172.009	28,183.032	44,179.972	27,579.296	76,698.000	28,982.440	48,704.340	
	Treasury		0.000	0.000	0.000	636.895	0.000	0.000	0.000	0.000	0.000	
	Outstanding		77,700.000	80,539.401	21,172.009	27,546.137	44,179.972	27,579.296	76,698.000	28,982.440	48,704.340	
	Year-End Price		$34.81	$28.25	$32.49	$45.98	$39.31	$34.18	$23.66	$29.14	$32.13	
Capitalization at Carrying Amounts							18.36					
	Debt(D)		1,615,000	2,190,142	380,433	264,800	540,000	529,500	660,000	321,400	584,200	
	Preferred(P)		0	0	1,009	0	600	0	0	0	28,200	
	Equity(E)		1,499,000	1,602,422	366,525	438,052	811,300	586,931	884,192	391,185	893,992	
	Total		3,114,000	3,792,564	747,967	702,852	1,351,900	1,116,431	1,544,192	712,585	1,506,392	
Capital Structure Ratios												
	Debt(D)		51.86%	57.75%	50.86%	37.68%	39.94%	47.43%	42.74%	45.10%	38.78%	45.79%
	Preferred(P)		0.00%	0.00%	0.13%	0.00%	0.04%	0.00%	0.00%	0.00%	1.87%	0.23%
	Equity(E)		48.14%	42.25%	49.00%	62.32%	60.01%	52.57%	57.26%	54.90%	59.35%	53.98%
	Total		100.00%	100.00%	99.99%	100.00%	99.99%	100.00%	100.00%	100.00%	100.00%	100.00%
Betas	Value Line		0.95	0.75	0.85	0.80	1.20	0.75	0.80	0.70	0.80	0.84
Hamada	Bl	=	Bu	[1+	(1 - t)	D/E	+	P/E	]			
	0.84	=	Bu	[1+	(1-0.35)	0.4788	+	0.0022	]			
	0.84	=	Bu	[1+	0.65	0.4788	+	0.0022	]			
	0.84	=	Bu	1.3134								
	0.64	=	Bu									
Hamada	Bl	=	0.64	[1+	(1 - t)	D/E	+	P/E	]			
	Bl	=	0.64	[1+	0.65	0.8484	+	0.0042	]			
	Bl	=	0.64	1.5557								
	Bl	=	1.00									

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Question No. 96

The questions in this section refer to the testimony of Paul R. Moul:

With reference to page 40 and Appendix E, please provide all details (dates, amounts, underwriter, SEC filings, etc.) concerning all debt and equity offerings by the Company or its parent (CEG or NiSource) in the past two years (2005-2007).

Response of Columbia Gas of Kentucky:

Debt:

The requested debt information is provided in attachment 1a, which details the debt issued by the Company in the past two years (or later if applicable). The supporting documents related to the debt issued are included in attachments A-E for the Company.

Attachment A – E – Promissory Notes related to the Company debt issued.

Equity:

NiSource issued the following amounts of new common equity: 2006 $21.9 million, 2005 $40.0 million, 2004 $160.8 million, 2003 $354.7 million, and 2002 $734.9 million. Attachment 1b provides the detail of the 2002 equity offerings. The Company has supplied the SEC filings for the 2002 equity offerings in attachments F, G, and H. Attachments I and J will support the remarketing of PIES debentures in 2003. Attachments K provide a summary of Stock Options Exercised in 2004, 2005, and 2006. Further detail of these stock options is available on page 102 of the NiSource 2006 10K. Schedule L support a remarketing of SAILS in 2004.

Attachment F – 8K related to NiSource Equity Offering
Attachment G – Prospectus Supplement related to NiSource Equity Offering
Attachment H – Underwriting Agreement related to NiSource Equity Offering
Attachment I – Investor Relations announcement of successful remarketing of PIES debentures
Attachment J – February 13, 2003 Prospectus Supplement
Attachment K – Stock Options Exercised Summary for 2004, 2005, 2006
Attachment L – Investor Relations announcement of forward equity arrangements

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY
PSC CASE NO. 2007-00008
INFORMATION REQUESTED BY THE ATTORNEY GENERAL
DATED APRIL 10, 2007

Columbia Gas of Kentucky, Inc.
Long-term Note Issuances
2005-2007

Date of Issuance	Date of Maturity	Amount Outstanding
January 5, 2005	January 5, 2016	$10,750,000
January 5, 2005	January 5, 2026	$12,375,000
January 5, 2005	January 5, 2017	$4,210,000
January 5, 2005	January 5, 2013	$14,720,000
November 1, 2006	November 1, 2021	$16,000,000

Note: Copies of the Promissory Notes are included as separate attachments A - E.

PROMISSORY NOTE

$14,720,000

Issue Date: January 5, 2006
Due Date: January 7, 2013

FOR VALUE RECEIVED, the undersigned, Columbia Gas of Kentucky, Inc., a Kentucky corporation ("Borrower"), hereby unconditionally promises to pay to NiSource Finance Corp., an Indiana corporation ("Lender"), at such place as Lender may from time to time designate in writing, in lawful money of the United States of America, the principal sum of Fourteen Million Seven Hundred Twenty Thousand Dollars ($14,720,000) together with interest on the principal balance hereof from time to time outstanding at the rate of 5.28% per annum from the date such principal is advanced until payment in full thereof. The principal indebtedness evidenced hereby shall be payable on January 7, 2013. Borrower may prepay the principal amount hereof in whole or in part, without premium or penalty, at any time after the first anniversary of the date hereof. Any payment on this Note shall be applied first to accrued but unpaid interest until paid in full and second to the unpaid principal amount hereof.

Interest shall be payable semi-annually in arrears on the first business day of June and December (commencing on June 1, 2006) and on the date on which the principal balance hereof is paid in full. Interest shall be calculated on the basis of a 365 day year for the actual number of days elapsed. Notwithstanding the foregoing, in no contingency or event whatsoever shall interest charged hereunder, however such interest may be characterized or computed, exceed the highest rate permissible under any law which a court of competent jurisdiction shall, in a final determination, deem applicable hereto. In the event that such a court determines that Lender has received interest hereunder in excess of the highest rate applicable hereto, Lender shall promptly refund such excess interest to Borrower.

Borrower shall be in default hereunder if: (a) any amount payable to Lender under this Note is not paid within five (5) business days of the date it is due, (b) Borrower shall make any assignment for the benefit of creditors, or (c) there shall be commenced any bankruptcy or insolvency proceedings by or against Borrower. Upon and after the occurrence of a default hereunder, this Note may, at the option of Lender, and without demand, notice or legal process of any kind, be declared, and thereupon immediately shall become, due and payable in full.

Presentment, protest and notice of nonpayment and protest are hereby waived by Borrower.

This Note has been delivered at and shall be deemed to have been made at Merrillville, Indiana, and shall be interpreted, and the rights and liabilities of the parties hereto determined, in accordance with the internal laws (as opposed to conflicts of law provisions) and decisions of the State of Indiana. Whenever possible each provision of this Note shall be interpreted in such manner as to be effective and valid under applicable law, but if any provisions of this Note shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Note. Whenever in this Note reference is made to Lender or Borrower, such reference shall be deemed to include their respective representatives, successors and assigns. Notwithstanding anything herein to the contrary, Borrower may not assign or otherwise transfer any of its rights or obligations under this Note without the prior written consent of Lender.

IN WITNESS WHEREOF, the undersigned has executed this Note on the issue date set forth above.

COLUMBIA GAS OF KENTUCKY, INC.

By: ________________________________

Title: ________________________________

PROMISSORY NOTE

$10,750,000

Issue Date: January 5, 2006
Due Date: January 5, 2016

FOR VALUE RECEIVED, the undersigned, Columbia Gas of Kentucky, Inc., a Kentucky corporation ("Borrower"), hereby unconditionally promises to pay to NiSource Finance Corp., an Indiana corporation ("Lender"), at such place as Lender may from time to time designate in writing, in lawful money of the United States of America, the principal sum of Ten Million Seven Hundred Fifty Thousand Dollars ($10,750,000) together with interest on the principal balance hereof from time to time outstanding at the rate of 5.41% per annum from the date such principal is advanced until payment in full thereof. The principal indebtedness evidenced hereby shall be payable on January 5, 2016. Borrower may prepay the principal amount hereof in whole or in part, without premium or penalty, at any time after the first anniversary of the date hereof. Any payment on this Note shall be applied first to accrued but unpaid interest until paid in full and second to the unpaid principal amount hereof.

Interest shall be payable semi-annually in arrears on the first business day of June and December (commencing on June 1, 2006) and on the date on which the principal balance hereof is paid in full. Interest shall be calculated on the basis of a 365 day year for the actual number of days elapsed. Notwithstanding the foregoing, in no contingency or event whatsoever shall interest charged hereunder, however such interest may be characterized or computed, exceed the highest rate permissible under any law which a court of competent jurisdiction shall, in a final determination, deem applicable hereto. In the event that such a court determines that Lender has received interest hereunder in excess of the highest rate applicable hereto, Lender shall promptly refund such excess interest to Borrower.

Borrower shall be in default hereunder if: (a) any amount payable to Lender under this Note is not paid within five (5) business days of the date it is due, (b) Borrower shall make any assignment for the benefit of creditors, or (c) there shall be commenced any bankruptcy or insolvency proceedings by or against Borrower. Upon and after the occurrence of a default hereunder, this Note may, at the option of Lender, and without demand, notice or legal process of any kind, be declared, and thereupon immediately shall become, due and payable in full.

Presentment, protest and notice of nonpayment and protest are hereby waived by Borrower.

This Note has been delivered at and shall be deemed to have been made at Merrillville, Indiana, and shall be interpreted, and the rights and liabilities of the parties hereto determined, in accordance with the internal laws (as opposed to conflicts of law provisions) and decisions of the State of Indiana. Whenever possible each provision of this Note shall be interpreted in such manner as to be effective and valid under applicable law, but if any provisions of this Note shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Note. Whenever in this Note reference is made to Lender or Borrower, such reference shall be deemed to include their respective representatives, successors and assigns. Notwithstanding anything herein to the contrary, Borrower may not assign or otherwise transfer any of its rights or obligations under this Note without the prior written consent of Lender.

IN WITNESS WHEREOF, the undersigned has executed this Note on the issue date set forth above.

COLUMBIA GAS OF KENTUCKY, INC.

By: ______________________________

Title: ______________________________

PROMISSORY NOTE

$4,210,000

Issue Date: January 5, 2006
Due Date: January 5, 2017

FOR VALUE RECEIVED, the undersigned, Columbia Gas of Kentucky, Inc., a Kentucky corporation ("Borrower"), hereby unconditionally promises to pay to NiSource Finance Corp., an Indiana corporation ("Lender"), at such place as Lender may from time to time designate in writing, in lawful money of the United States of America, the principal sum of Four Million Two Hundred Ten Thousand Dollars ($4,210,000) together with interest on the principal balance hereof from time to time outstanding at the rate of 5.45% per annum from the date such principal is advanced until payment in full thereof. The principal indebtedness evidenced hereby shall be payable on January 5, 2017. Borrower may prepay the principal amount hereof in whole or in part, without premium or penalty, at any time after the first anniversary of the date hereof. Any payment on this Note shall be applied first to accrued but unpaid interest until paid in full and second to the unpaid principal amount hereof.

Interest shall be payable semi-annually in arrears on the first business day of June and December (commencing on June 1, 2006) and on the date on which the principal balance hereof is paid in full. Interest shall be calculated on the basis of a 365 day year for the actual number of days elapsed. Notwithstanding the foregoing, in no contingency or event whatsoever shall interest charged hereunder, however such interest may be characterized or computed, exceed the highest rate permissible under any law which a court of competent jurisdiction shall, in a final determination, deem applicable hereto. In the event that such a court determines that Lender has received interest hereunder in excess of the highest rate applicable hereto, Lender shall promptly refund such excess interest to Borrower.

Borrower shall be in default hereunder if: (a) any amount payable to Lender under this Note is not paid within five (5) business days of the date it is due, (b) Borrower shall make any assignment for the benefit of creditors, or (c) there shall be commenced any bankruptcy or insolvency proceedings by or against Borrower. Upon and after the occurrence of a default hereunder, this Note may, at the option of Lender, and without demand, notice or legal process of any kind, be declared, and thereupon immediately shall become, due and payable in full.

Presentment, protest and notice of nonpayment and protest are hereby waived by Borrower.

This Note has been delivered at and shall be deemed to have been made at Merrillville, Indiana, and shall be interpreted, and the rights and liabilities of the parties hereto determined, in accordance with the internal laws (as opposed to conflicts of law provisions) and decisions of the State of Indiana. Whenever possible each provision of this Note shall be interpreted in such manner as to be effective and valid under applicable law, but if any provisions of this Note shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Note. Whenever in this Note reference is made to Lender or Borrower, such reference shall be deemed to include their respective representatives, successors and assigns. Notwithstanding anything herein to the contrary, Borrower may not assign or otherwise transfer any of its rights or obligations under this Note without the prior written consent of Lender.

IN WITNESS WHEREOF, the undersigned has executed this Note on the issue date set forth above.

COLUMBIA GAS OF KENTUCKY, INC.

By: ______________________________

Title: ______________________________

PROMISSORY NOTE

$12,375,000

Issue Date: January 5, 2006
Due Date: January 5, 2026

FOR VALUE RECEIVED, the undersigned, Columbia Gas of Kentucky, Inc., a Kentucky corporation ("Borrower"), hereby unconditionally promises to pay to NiSource Finance Corp., an Indiana corporation ("Lender"), at such place as Lender may from time to time designate in writing, in lawful money of the United States of America, the principal sum of Twelve Million Three Hundred Seventy-Five Thousand Dollars ($12,375,000) together with interest on the principal balance hereof from time to time outstanding at the rate of 5.92% per annum from the date such principal is advanced until payment in full thereof. The principal indebtedness evidenced hereby shall be payable on January 5, 2026. Borrower may prepay the principal amount hereof in whole or in part, without premium or penalty, at any time after the first anniversary of the date hereof. Any payment on this Note shall be applied first to accrued but unpaid interest until paid in full and second to the unpaid principal amount hereof.

Interest shall be payable semi-annually in arrears on the first business day of June and December (commencing on June 1, 2006) and on the date on which the principal balance hereof is paid in full. Interest shall be calculated on the basis of a 365 day year for the actual number of days elapsed. Notwithstanding the foregoing, in no contingency or event whatsoever shall interest charged hereunder, however such interest may be characterized or computed, exceed the highest rate permissible under any law which a court of competent jurisdiction shall, in a final determination, deem applicable hereto. In the event that such a court determines that Lender has received interest hereunder in excess of the highest rate applicable hereto, Lender shall promptly refund such excess interest to Borrower.

Borrower shall be in default hereunder if: (a) any amount payable to Lender under this Note is not paid within five (5) business days of the date it is due, (b) Borrower shall make any assignment for the benefit of creditors, or (c) there shall be commenced any bankruptcy or insolvency proceedings by or against Borrower. Upon and after the occurrence of a default hereunder, this Note may, at the option of Lender, and without demand, notice or legal process of any kind, be declared, and thereupon immediately shall become, due and payable in full.

Presentment, protest and notice of nonpayment and protest are hereby waived by Borrower.

This Note has been delivered at and shall be deemed to have been made at Merrillville, Indiana, and shall be interpreted, and the rights and liabilities of the parties hereto determined, in accordance with the internal laws (as opposed to conflicts of law provisions) and decisions of the State of Indiana. Whenever possible each provision of this Note shall be interpreted in such manner as to be effective and valid under applicable law, but if any provisions of this Note shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Note. Whenever in this Note reference is made to Lender or Borrower, such reference shall be deemed to include their respective representatives, successors and assigns. Notwithstanding anything herein to the contrary, Borrower may not assign or otherwise transfer any of its rights or obligations under this Note without the prior written consent of Lender.

IN WITNESS WHEREOF, the undersigned has executed this Note on the issue date set forth above.

COLUMBIA GAS OF KENTUCKY, INC.

By: ______________________________

Title: ______________________________

PROMISSORY NOTE

$16,000,000

Issue Date: November 1, 2006
Due Date: November 1, 2021

FOR VALUE RECEIVED, the undersigned, Columbia Gas of Kentucky, Inc., a Kentucky corporation ("Borrower"), hereby unconditionally promises to pay to NiSource Finance Corp., an Indiana corporation ("Lender"), at such place as Lender may from time to time designate in writing, in lawful money of the United States of America, the principal sum of Sixteen Million Dollars ($16,000,000) together with interest on the principal balance hereof from time to time outstanding at the rate of 6.015% per annum from the date such principal is advanced until payment in full thereof. The principal indebtedness evidenced hereby shall be payable on November 1, 2021. Borrower may prepay the principal amount hereof in whole or in part, without premium or penalty, at any time after the first anniversary of the date hereof. Any payment on this Note shall be applied first to accrued but unpaid interest until paid in full and second to the unpaid principal amount hereof.

Interest shall be payable semi-annually in arrears on the first business day of June and December (commencing on December 1, 2006) and on the date on which the principal balance hereof is paid in full. Interest shall be calculated on the basis of a 365 day year for the actual number of days elapsed. Notwithstanding the foregoing, in no contingency or event whatsoever shall interest charged hereunder, however such interest may be characterized or computed, exceed the highest rate permissible under any law which a court of competent jurisdiction shall, in a final determination, deem applicable hereto. In the event that such a court determines that Lender has received interest hereunder in excess of the highest rate applicable hereto, Lender shall promptly refund such excess interest to Borrower.

Borrower shall be in default hereunder if: (a) any amount payable to Lender under this Note is not paid within five (5) business days of the date it is due, (b) Borrower shall make any assignment for the benefit of creditors, or (c) there shall be commenced any bankruptcy or insolvency proceedings by or against Borrower. Upon and after the occurrence of a default hereunder, this Note may, at the option of Lender, and without demand, notice or legal process of any kind, be declared, and thereupon immediately shall become, due and payable in full.

Presentment, protest and notice of nonpayment and protest are hereby waived by Borrower.

This Note has been delivered at and shall be deemed to have been made at Merrillville, Indiana, and shall be interpreted, and the rights and liabilities of the parties hereto determined, in accordance with the internal laws (as opposed to conflicts of law provisions) and decisions of the State of Indiana. Whenever possible each provision of this Note shall be interpreted in such manner as to be effective and valid under applicable law, but if any provisions of this Note shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Note. Whenever in this Note reference is made to Lender or Borrower, such reference shall be deemed to include their respective representatives, successors and assigns. Notwithstanding anything herein to the contrary, Borrower may not assign or otherwise transfer any of its rights or obligations under this Note without the prior written consent of Lender.

IN WITNESS WHEREOF, the undersigned has executed this Note on the issue date set forth above.

COLUMBIA GAS OF KENTUCKY, INC.

By: ______________________________

Title: ______________________________

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SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934

Date of report (Date of earliest event reported): November 6, 2002

NISOURCE INC.
(Exact Name of Registrant as Specified in Charter)

Delaware (State or Other Jurisdiction of Incorporation)	001-16189 (Commission File Number)	35-2108964 (IRS Employer Identification No.)

NISOURCE FINANCE CORP.
(Exact Name of Registrant as Specified in Charter)

Indiana (State or Other Jurisdiction of Incorporation)	333-49330-01 (Commission File Number)	35-2105468 (IRS Employer Identification No.)

801 East 86th Avenue,
Merrillville, Indiana 46410
(877) 647-5990
(Address and Telephone Number
of Principal Executive Offices)

ITEM 5. OTHER EVENTS

On November 6, 2002, NiSource Inc. entered into a Terms Agreement with Banc of America Securities LLC, Credit Suisse First Boston Corporation, Dresdner Kleinwort Wasserstein Securities LLC, Salomon Smith Barney Inc., TD Securities (USA) Inc. and Wachovia Securities, Inc. with respect to the offering and sale of 36,000,000 shares of NiSource Inc. common stock at a price to public of $18.30 per share. The sale is scheduled to close on November 13, 2002. In connection with the offering, NiSource granted the underwriters a 30-day option to purchase up to an additional 5,400,000 shares of common stock to

cover over-allotments, if any. The Terms Agreement incorporates by reference an Underwriting Agreement of NiSource Inc. with respect to common stock, preferred stock and guaranties of debt securities and NiSource Finance Corp. with respect to debt securities, dated November 6, 2002 (the "Underwriting Agreement")

A copy of the Underwriting Agreement is filed as Exhibits 1.1 to this Report on Form 8-K, and is hereby incorporated by reference herein.

ITEM 7. FINANCIAL STATEMENTS, PRO FORMA FINANCIAL INFORMATION AND EXHIBITS.

(c) Exhibits

The following exhibit is filed herewith:

99.1 Underwriting Agreement, dated November 6, 2002

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

NISOURCE INC.

Date: November 7, 2002

By: /s/ Jeffrey W. Grossman

Name: Jeffrey W. Grossman
Title: Vice President and Controller

NISOURCE FINANCE CORP.

Date: November 7, 2002

By: /s/ Jeffrey W. Grossman

Name: Jeffrey W. Grossman
Title: Vice President

EXHIBIT INDEX

Exhibit No.	Description
99.1	Underwriting Agreement, dated November 6, 2002

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Prospectus Supplement

(To Prospectus Dated November 20, 2000)

36,000,000 Shares

NiSource Inc.

Common Stock

Our common stock is listed on The New York Stock Exchange under the trading symbol "NI." The last reported sale price on November 6, 2002 was $18.30 per share.

Investing in our common stock involves risks. See "Risk Factors" on page S-6.

	Per Share	Total
Offering Price	$ 18.30	$658,800,000
Discounts and Commissions to Underwriters	$ 0.549	$ 19,764,000
Offering Proceeds to NiSource	$17.751	$639,036,000

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the prospectus to which it relates is truthful or complete. Any representation to the contrary is a criminal offense.

NiSource has granted the underwriters the right to purchase up to an additional 5,400,000 shares of common stock to cover any over-allotments. The underwriters can exercise this right at any time within 30 days after the offering. The underwriters expect to deliver the shares of common stock to investors on or about November 13, 2002.

Joint Book-Running Managers

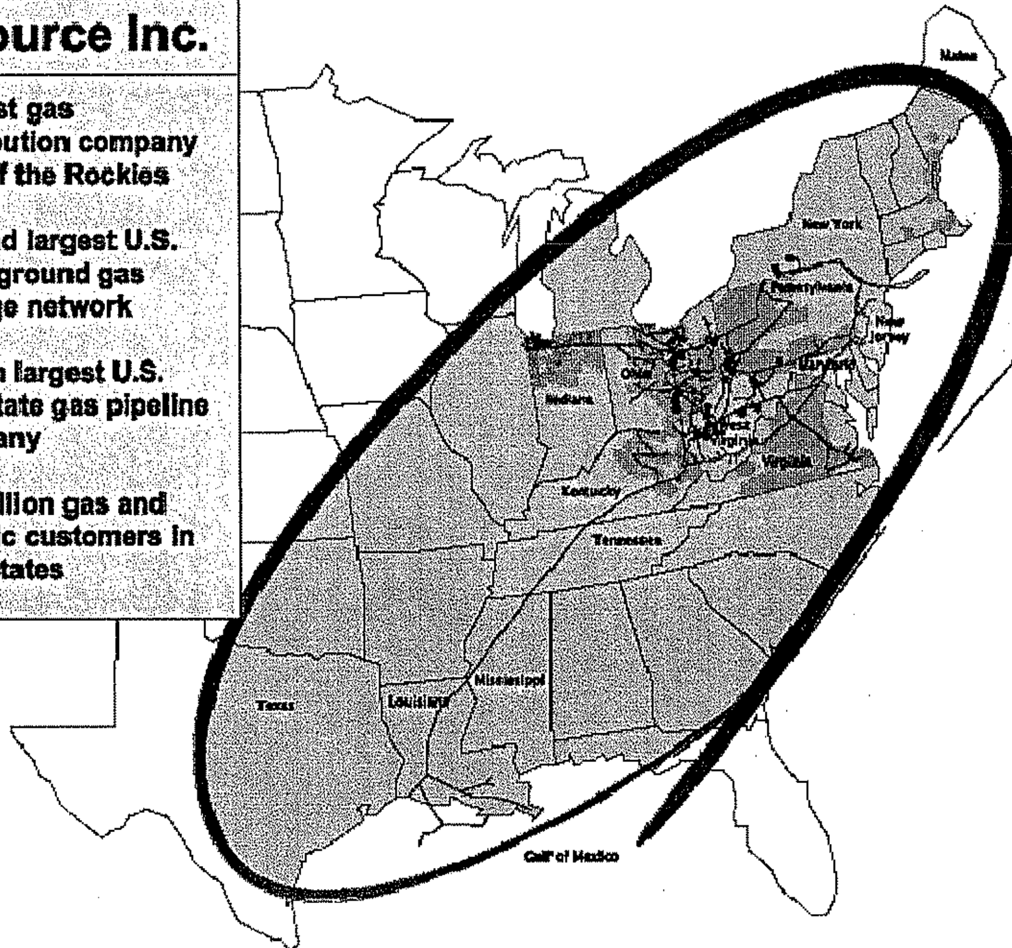
Banc of America Securities LLC **Credit Suisse First Boston**

Dresdner Kleinwort Wasserstein **Salomon Smith Barney**

TD Securities **Wachovia Securities**

November 6, 2002.

The Energy Corridor



This document is in two parts. The first is this prospectus supplement, which describes the specific terms of this common stock offering. The second part, the accompanying prospectus, gives more general information, some of which may not apply to this offering.

If the description of the offering varies between this prospectus supplement and the accompanying prospectus, you should rely on the information in this prospectus supplement.

You should rely only on the information contained in this document or to which we have referred you. We have not authorized anyone to provide you with information that is different. This document may only be used where it is legal to sell these securities. The information in this document may only be accurate on the date of this document.

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INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" information into this prospectus and prospectus supplement. This means that we can disclose important information to you by referring you to another document that NiSource has filed separately with the SEC. The information incorporated by reference is considered to be part of this prospectus and prospectus supplement. Information that NiSource files with the SEC after the date of this prospectus supplement will automatically modify and supersede the information included or incorporated by reference in this prospectus and prospectus supplement to the extent that the subsequently filed information modifies or supersedes the existing information. We incorporate by reference

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2001, filed February 22, 2002;
- our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2002 and June 30, 2002;
- our Current Reports on Form 8-K filed May 21, 2002 and November 1, 2002; and
- any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 until we sell all of the securities offered by the prospectus supplement.

You may request a copy of any of these filings at no cost by writing to or telephoning us at the following address and telephone number: Gary W. Pottorff, NiSource Inc., 801 East 86th Avenue, Merrillville, Indiana 46410, telephone: (877) 647-5990.

SUMMARY

This summary highlights certain information appearing elsewhere in this document. This summary is not complete and does not contain all of the information that you should consider before purchasing the common stock. You should carefully read the "Risk Factors" section beginning on page S-6 of this prospectus supplement to determine whether an investment in our common stock is appropriate for you. Unless the context requires otherwise, references to "we," "us" or "our" refer collectively to NiSource and its subsidiaries.

NiSource

Overview

NiSource is a super-regional energy holding company that provides natural gas, electricity and other products and services to 3.6 million customers located within the energy corridor that runs from the Gulf Coast through the Midwest to New England.

We are the largest regulated natural gas distribution company, as measured by number of customers, operating east of the Rockies. Our principal subsidiaries include the Columbia Energy Group, a vertically-integrated natural gas distribution, transmission and storage holding company whose subsidiaries provide service to customers in the Midwest, the Mid-Atlantic and the Northeast; Northern Indiana Public Service Company, a vertically-integrated natural gas and electric company providing service to customers in northern Indiana; and Bay State Gas Company, a natural gas distribution company serving customers in New England. We derive substantially all our revenues and earnings from the operating results of our subsidiaries. Our primary businesses are:

- gas distribution;
- gas transmission and storage; and
- electric operations.

As discussed in "Recent Developments" below, we recently announced our intention to sell the operations of our exploration and production segment.

Strategy

We are focused on utilizing our core regulated gas and electric businesses to serve customers throughout the energy-intensive corridor that extends from the supply areas in the Gulf Coast through the consumption centers in the Midwest, Mid-Atlantic and

Northeast. This corridor is home to 30% of the nation's population and 40% of its energy consumption. The acquisition of Columbia Energy Group in November 2000 furthered this strategy by combining NiSource's natural gas distribution assets in Indiana and New England with Columbia's natural gas distribution and storage assets in Ohio and the Mid-Atlantic and Columbia's interstate transmission assets. We are committed to maximizing our efficiency in our core regulated operations without compromising customer service and safety.

Gas Distribution

We are the nation's second largest regulated gas distribution company based on volume of gas sales, with on average over 2.3 billion cubic feet per day. Through our wholly-owned subsidiary, Columbia Energy Group, we own five distribution subsidiaries that provide natural gas under the Columbia Gas name to approximately 2.1 million residential, commercial and industrial customers in Ohio, Pennsylvania, Virginia, Kentucky and Maryland. We also distribute natural gas to approximately 765,000 customers in northern Indiana through three subsidiaries: Northern Indiana Public Service Company, Kokomo Gas and Fuel Company and Northern Indiana Fuel and Light Company, Inc. Additionally, our subsidiaries Bay State Gas Company and Northern Utilities, Inc. distribute natural gas to more than 327,000 customers in the areas of Brockton, Lawrence and Springfield, Massachusetts, Lewiston and Portland, Maine, and Portsmouth, New Hampshire.

Gas Transmission and Storage

Our gas and transmission storage subsidiaries own and operate an interstate pipeline network of approximately 16,130 miles extending from offshore in the Gulf of Mexico to Lake Erie, New York and the eastern seaboard. Together, the companies serve customers in 17 northeastern, mid-Atlantic, midwestern and southern states, as well as the District of Columbia. In addition, Columbia Gas Transmission Corporation operates one of the nation's largest underground natural gas storage systems, capable of storing approximately 670 billion cubic feet of natural gas.

Columbia Gas Transmission is also participating in the proposed 442-mile Millennium Pipeline Project. As proposed, the project will transport approximately 700 billion cubic feet of natural gas per day from the Lake Erie region to markets in New York and the northeast United States. The Federal Energy Regulatory Commission recently issued a certificate authorizing construction and operation of the pipeline.

Electric Operations

We generate and distribute electricity to the public through our subsidiary Northern Indiana Public Service Company. Northern Indiana provides electric service to approximately 434,000 customers in 21 counties in the northern part of Indiana. Northern Indiana owns and operates three coal-fired electric generating stations with a net capacity of 2,694 megawatts, three gas fired combustion turbine generating units with a net capacity of 186 megawatts and two hydroelectric generating plants with a net capacity of 10 megawatts, for a total system net capacity of 2,890 megawatts. Northern Indiana is interconnected with five neighboring electric utilities. During the year ended December 31, 2001, Northern Indiana generated 93.2% and purchased 6.8% of its electric requirements.

Other Operations

We provide energy-related services including gas marketing, electric transmission, bulk power and power trading, and participate in the development of merchant power projects. Through our subsidiary EnergyUSA-TPC Corp., we provide natural gas sales to industrial and commercial customers and engage in natural gas marketing activities. Through our subsidiary, Primary Energy, Inc., we develop, build, own, operate and manage industrial based energy projects. Primary Energy develops on-site, industrial-based energy solutions for large complexes having multiple energy flows, such as electricity, steam, by-product fuels or heated water. We participate in real estate, telecommunications and other businesses. We have built a fiber optics network for voice and data communication along our pipeline rights-of-way between New York and Washington D.C.

Non-Core Divestitures

On January 28, 2002, we sold the stock of SM&P Utility Resources, Inc. to The Laclede Group, Inc. for $37.9 million, recognizing an after-tax gain of $12.5 million. The net assets of SM&P were reported as assets held for sale on the consolidated balance sheets as of December 31, 2001.

On April 30, 2002, we sold the assets of the Indianapolis Water Company and other assets of IWC Resources Corporation and its subsidiaries to the City of Indianapolis for $540 million, resulting in an after-tax gain of $7.5 million. Also in April 2002, we sold our interest in White River Environmental Partnership, an IWC investment, to the other partners for $8 million, approximating book value. At March 31, 2002 and December 31, 2001, the water utilities' operations were reported as discontinued operations.

On July 1, 2002, in order to scale back our energy trading portfolio, we sold our net obligations under a significant portion of our gas forward transaction portfolio, physical storage inventory and associated agreements to a third party. In accordance with the terms of the agreement, we paid $6.8 million to settle the net obligations.

On October 11, 2002, we announced our intention to sell Columbia Energy Resources, Inc. and its subsidiaries, including Columbia Natural Resources, Inc., our natural gas exploration and production business.

THE OFFERING

Common stock offered	36,000,000
Common stock to be outstanding after the offering	243,792,000
Use of proceeds	We will use the net proceeds from the sale of common stock to repay $281.5 million of Columbia Energy Group debentures due November 28, 2002 and to repay short-term borrowings.
New York Stock Exchange symbol	NI

The number of shares of common stock offered and to be outstanding immediately after this offering does not include:

- shares of common stock that the underwriters have an option to purchase from us within 30 days of the date of this prospectus supplement;
- shares issuable upon the exercise of outstanding stock options held by our employees, executive officers and directors; and
- shares issuable upon settlement of our Corporate Premium Income Equity Securities (PIES) or our Stock Appreciation Income Linked Securities (SAILS).

RISK FACTORS

In deciding whether to invest in our common stock, you should consider carefully the following factors that could cause our operating results and financial condition to be materially adversely affected. Although we have tried to discuss key factors, please be aware that other risks may prove to be important in the future. New risks may emerge at any time, and we cannot predict those risks or estimate the extent to which they may affect our financial performance. You should also consider the information included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2001, as updated by our subsequent reports on Form 10-Q and Form 8-K. Each of the risks described below could result in a decrease in the value of our common stock and your investment therein.

We have substantial indebtedness, which could adversely affect our financial condition.

We have a significant amount of indebtedness outstanding as a result of our acquisition of Columbia Energy Group. We had total consolidated indebtedness of approximately $7.7 billion outstanding as of November 1, 2002.

Our substantial indebtedness could have important consequences to you. For example, it could:

- limit our ability to borrow additional funds or increase the cost of borrowing additional funds;
- limit our ability to pay dividends at the current rate;
- reduce the availability of cash flow from operations to fund working capital, capital expenditures and other general corporate purposes;
- limit our flexibility in planning for, or reacting to, changes in our business and the industries in which we operate;
- lead parties with whom we do business to require additional credit support, such as letters of credit, in order for us to transact such business;
- place us at a competitive disadvantage compared to our competitors that are less leveraged;
- result in a downgrade in our ratings; and
- increase our vulnerability to general adverse economic and industry conditions.

Some of our debt obligations contain financial covenants related to debt-to-capital ratios and interest coverage ratios and cross-default provisions. Our failure to comply with any of these covenants could result in an event of default which, if not cured or waived, could result in the acceleration of our outstanding debt obligations. Any such acceleration would cause a material adverse change in our financial condition.

Our strategy to improve our balance sheet is dependent on our ability to access capital markets.

We have historically relied on commercial paper markets and fixed income capital markets as a source of liquidity for capital requirements not satisfied by the cash flow from our operations.

In January 2002, Standard and Poor's reaffirmed our BBB senior unsecured long-term credit rating and our A2 commercial paper rating with a negative outlook. However, on February 1, 2002, Moody's Investor Service downgraded our senior unsecured long-term credit rating to Baa3 and our commercial paper rating to P3 with a negative outlook. As a split-rated A2/ P3 commercial paper issuer, we have had our access to the commercial paper market significantly constrained and have met our liquidity needs by using our $500 million revolving credit facility, which expires in March 2003, and our $1.25 billion dollar facility, which expires in March 2004. As of November 1, 2002, $473.0 million was available under these facilities. We expect to refinance a portion of our short-term borrowing requirements in the fixed-income capital markets.

If we are not able to access capital at competitive rates, our ability to implement our strategy to improve our balance sheet will be adversely affected. This could result in a ratings downgrade. A further downgrade of our

credit rating will further adversely affect our ability to access one or more financial markets, which could negatively affect our financial results.

Further credit ratings downgrades will increase our financing costs and the costs of maintaining certain contractual relationships.

If our current ratings are downgraded, our borrowing costs will increase, as will the costs of maintaining certain contractual relationships. Additionally, if our ratings were to decline below investment grade, we would lose the ability to finance under certain receivables sales facilities.

Columbia Energy Group's current unsecured long-term credit is rated BBB by Standard & Poor's and Baa2 by Moody's. If either of these ratings were to decline below its current level, Columbia would be immediately required to post approximately $261 million in collateral (including letters of credit) to support an indemnity obligation relating to a forward sale of natural gas made by its exploration and production business. Posting collateral would adversely impact our liquidity. The exploration and production business is currently for sale.

We will need additional capital to refinance indebtedness that is scheduled to mature and for other working capital purposes, which we may not be able to obtain.

After this offering, we will be required to obtain significant additional capital in 2002 and 2003 to execute our business plan, meet working capital needs and repay existing indebtedness scheduled to mature during the period. In particular, we will be required to repay, refinance or extend the following indebtedness:

- $281.5 million of Columbia's 6.61% Series B Debentures due November 28, 2002;
- $300 million of NiSource's 5 3/4% Notes due April 15, 2003;
- $750 million of NiSource's 7 1/2% Notes due November 15, 2003; and
- NiSource's $500 million 364-day credit facility expiring March 20, 2003.

If we are unable to obtain additional capital to repay this debt, are unable to extend or renew our 364-day credit facility, are unable to remarket the securities underlying our PIES, or are unable to consummate the sale of our exploration and production segment in a timely manner, our operations could be materially adversely affected.

The terms of our settlement with the Indiana Utility Regulatory Commission will result in credits to consumers.

On September 23, 2002, the Indiana Utility Regulatory Commission approved a settlement agreement that entitles electric customers of Northern Indiana Public Service Company to receive an amount intended to approximate $55.0 million each year in credits to their electric bills for 49 months. Northern Indiana's electric customers, other than those on certain contract rates, will receive a credit of approximately six percent of the electric portion of their monthly Northern Indiana bill. The settlement was the result of months of negotiations among Northern Indiana, the Indiana Office of Utility Consumer Counselor, and a group of commercial and industrial customers.

The Indiana Utility Regulatory Commission has denied a petition for reconsideration, and the approval of the settlement is currently being appealed. There can be no assurances that the appeal will not result in further proceedings before the Indiana Utility Regulatory Commission, or that such proceedings will not result in a further reduction in rates.

Increased federal and state environmental regulation of NOx emissions will require us to incur large capital expenditures.

The Environmental Protection Agency has recently approved Indiana state rules intended to reduce nitrogen oxide (NOx) levels from several sources, including industrial and utility boilers. The rules are part of a program

intended to reduce ozone levels in the eastern United States. Compliance with the NOx limits contained in these rules is required by May 31, 2004. Capital estimates of our NOx control compliance costs range from $200 to $300 million over the next two years. Actual compliance costs may vary depending on a number of factors including market demand/resource constraints, uncertainty of future equipment and construction costs, and the potential need for additional control technology.

A significant portion of the gas and electricity we sell is used for heating and air conditioning. Accordingly, our operating results fluctuate depending on the weather.

Our energy sales are sensitive to variations in weather conditions. We forecast energy sales on the basis of normal weather, which represents a long-term historical average. Significant variations from normal weather could have, and have had, a material impact on energy sales. For example, record warm weather in our markets in the first quarter of 2002 negatively affected basic earnings by 16 cents per share, when compared to the long-term historical average, and by 12 cents per share, when compared to the comparable period in 2001.

Our electric operations are subject to economic conditions in certain industries.

Our electric operations in northern Indiana have been and may continue to be adversely affected by substantial declines in sales to industrial customers, particularly to steel and steel related industries. While there recently has been some recovery in steel and steel related industries, there can be no assurances as to whether this trend will continue or, if so, whether sales will return to historical levels.

Recent events that are beyond our control have increased the level of public and regulatory scrutiny of our industry. Governmental and market reactions to these events may have negative impacts on our business, financial condition and access to capital.

As a result of the energy crisis in California during the summer of 2001, the recent volatility of natural gas prices in North America, the bankruptcy filing by Enron Corporation, recently discovered accounting irregularities at public companies in general and energy companies in particular, and investigations by governmental authorities into energy trading activities, companies in the regulated and unregulated utility business have been under a generally increased amount of public and regulatory scrutiny and suspicion. Recently discovered accounting irregularities have caused regulators and legislators to review current accounting practices, financial disclosures and companies' relationships with their independent auditors. The capital markets and ratings agencies also have increased their level of scrutiny. We believe that we are complying with all applicable laws and accounting standards, but it is difficult or impossible to predict or control what

effect these types of events may have on our business, financial condition or access to the capital markets.

As a result of these events, Congress passed the Sarbanes-Oxley Act of 2002. It is unclear what additional laws or regulations may develop, and we cannot predict the ultimate impact of any future changes in accounting regulations or practices in general with respect to public companies, the energy industry or our operations specifically. Any new accounting standards could affect the way we are required to record revenues, assets and liabilities. These changes in accounting standards could lead to negative impacts on reported earnings or increases in liabilities that could, in turn, affect our reported results of operations.

Our Whiting merchant energy project is operating at a loss.

Our Primary Energy subsidiary has developed a merchant energy facility at BP's Whiting, Indiana refinery. This facility uses natural gas to generate electricity for sale in the wholesale markets and is expected, after plant modifications, to generate steam for industrial use. Recent developments in the wholesale power market have resulted in depressed wholesale power prices, which have substantially reduced revenues for participants in the market. We expect that the facility will operate at a loss in the near term based on the current market view of forward pricing for gas and electricity. We estimate that the after-tax loss for 2002 will be approximately $20.0 million. The profitability of the project in future periods will depend on, among other things, prevailing prices in the energy markets and regional load dispatch patterns.

Your ability to recover from our former auditors, Arthur Andersen LLP, may be limited.

On May 21, 2002, the Board of Directors of NiSource, upon recommendation of its Audit Committee, dismissed Arthur Andersen LLP as the independent public accountants for NiSource and its subsidiaries, Columbia and Northern Indiana, and retained Deloitte & Touche LLP to serve as the independent public accountants of NiSource and its subsidiaries for 2002.

Andersen completed its audit of NiSource's consolidated financial statements for the year ended December 31, 2001 and issued its report with respect to such consolidated financial statements on January 29, 2002. Subsequently, Andersen was convicted of obstruction of justice for activities relating to its previous work for Enron Corp. and has ceased to audit publicly held companies. Because Andersen is unlikely to survive, purchasers of the common stock may not be able to recover against Andersen for any claims they may have under securities or other laws as a result of Andersen's previous role as our independent public accountants and as author of the audit report for the audited financial statements incorporated by reference in this prospectus supplement.

RECENT DEVELOPMENTS

Financial Results

On October 28, 2002, we reported our financial results for the quarter ended September 30, 2002. For the third quarter of 2002, net income was $23.2 million, or $0.11 per share, compared to a net loss of $21.0 million, or a loss of $0.10 share, in the third quarter of 2001. For the nine months ended September 30, 2002, we reported net income of $290.4 million, or $1.41 per share, compared to $149.3 million, or $0.73 per share, for the first nine months of 2001. All per share amounts are for basic shares.

Proposed Sale of Exploration and Production Business

On October 11, 2002, we announced our intention to sell our natural gas exploration and production business, consisting of Columbia Energy Resources, Inc. and its subsidiaries, including Columbia Natural Resources, Inc.

Adjustments to Minimum Pension Liability

Due to the decline in the equity markets, the fair value of our pension fund assets has decreased since September 30, 2001. In addition, the discount rate used to measure the accumulated benefit obligation has decreased. These events have resulted in an increase in our estimated minimum pension liability. We recorded an additional minimum pension liability adjustment at September 30, 2002. The adjustment resulted in a decrease to stockholders' equity of $196.5 million after-tax.

EITF Issue No. 02-3

At meetings held in June 2002, the Emerging Issues Task Force (EITF) reached a consensus on Issue 1 of EITF Issue No. 02-3, requiring that all gains and losses on energy trading contracts and related physical transactions must be shown net in the income statement. The consensus was effective for financial statements issued for periods ending after July 15, 2002. On October 28, 2002, we reported our earnings for the three- and nine-month periods ended September 30, 2002 and, in accordance with the EITF consensus, reflected all trading transactions on a net basis. The information in the press release regarding prior periods also was adjusted to reflect the new presentation.

A summary of the EITF meeting held on October 25, 2002, which was not made available until October 30, indicates that the EITF effectively superseded the consensus reached during the June meetings. The summary indicates that the requirement to present gains and losses on energy trading contracts on a net basis would be applicable to fiscal periods beginning after December 15, 2002. We expect a draft of the minutes of the EITF meeting to be made available after November 7, 2002.

If the minutes are issued as expected, we will adopt the rules requiring net presentation effective January 1, 2003 and will continue to report trading activities for physically-settled contracts on a gross basis, in accordance with our historical practice, through the end of 2002. If the information contained in our October 28, 2002 press release had been presented in accordance with our historical practice, each of consolidated gross revenues and consolidated cost of sales for the three months ended September 30, 2002 and 2001 would have been higher by $106.0 million and $621.2 million, respectively, and for the nine months ended September 30, 2002 and 2001 would have been higher by $870.9 million and $2,406.1 million, respectively. All of the increase is attributable to our merchant operations. Operating income for all periods would remain as reported in the press release.

USE OF PROCEEDS

Our net proceeds from the sale of the 36,000,000 shares of our common stock in this offering after deducting underwriting discounts and commissions and estimated offering expenses payable by us will be $638,736,000 ($734,591,400 if the underwriters' over-allotment option in this offering is exercised in full). We expect to use approximately $290.8 million of the net proceeds from the sale of our common stock in this offering to repay all of Columbia's outstanding 6.61% Series B Debentures due November 28, 2002, and to advance the balance of the proceeds to NiSource Finance Corp. to repay short-term bank borrowings having an annual interest rate of 2.49% as of October 31, 2002.

CAPITALIZATION

The following table shows our capitalization and short-term indebtedness at June 30, 2002. The "As Adjusted" column shows our capitalization and short term indebtedness at June 30, 2002, after giving effect to the sale of the common stock pursuant to this offering and the anticipated use of net proceeds, as described under the caption "Use of Proceeds." This table should be read in conjunction with our audited consolidated financial statements and related notes for the year ended December 31, 2001, incorporated by reference in this prospectus supplement and accompanying prospectus.

	June 30, 2002	
	Actual	***As Adjusted***
	(in thousands)	
Long-term debt (excluding amounts due within one year)	$ 5,930.5	$ 5,930.5
Company-obligated mandatorily redeemable security of trust holding solely parent company debentures (PIES)	345.0	345.0

Cumulative preferred stocks	86.1	86.1
Common shareholders' equity	3,579.7	4,218.4
Total capitalization	$ 9,941.3	$ 10,580.0
Short-term borrowings (including current portion of long-term debt) (a)	$ 1,693.5	$ 1,054.8

(a) Excludes $43.0 million of preferred stock redeemed on October 14, 2002 pursuant to mandatory redemption provisions.

PRICE RANGE OF COMMON STOCK AND DIVIDEND POLICY

Our common stock is traded on the New York Stock Exchange under the symbol "NI." The following table sets forth, for the periods indicated, the range of high and low sale prices for our common stock. On November 6, 2002, the last reported sale price for our common stock was $18.30 per share.

	Common Stock	
	High	**Low**
Year Ended December 31, 2000		
First Quarter	$21.69	$12.75
Second Quarter	$19.31	$16.13
Third Quarter	$26.56	$18.13
Fourth Quarter	$31.50	$23.56
Year Ended December 31, 2001		

First Quarter	$31.20	$25.87
Second Quarter	$32.55	$26.15
Third Quarter	$28.70	$22.20
Fourth Quarter	$24.48	$18.25
Year Ended December 31, 2002		
First Quarter	$24.14	$19.00
Second Quarter	$24.99	$20.71
Third Quarter	$22.05	$16.25
Fourth Quarter (through November 6, 2002)	$18.52	$14.51

As of October 31, 2002, there were 47,743 holders of record of our common stock.

Annual dividends paid in 2001 were $1.16 per share and paid or declared in 2002 were $1.16 per share. Our board of directors declared the most recent dividend on

August 27, 2002, which will be paid on November 20, 2002 to holders of record as of October 31, 2002. Future dividends will be paid at the discretion of the board of directors and will be determined after consideration of various factors, including the earnings and financial condition of NiSource and its subsidiaries.

SELECTED HISTORICAL CONSOLIDATED FINANCIAL INFORMATION

The following financial information is only a summary, and you should read it together with our historical consolidated financial statements and the related notes incorporated by reference in this document.

	Year Ended December 31,			Six Months Ended June 30, 2002
	1999(a)	2000(a)	2001	
	($ in millions)			
Income Statement Data				
Gross revenues	$3,273.5	$6,030.7	$9,458.7	$3,582.0
Operating income	437.9	557.4	1,008.9	680.3
Income from continuing operations (b)	153.9	141.1	212.1	262.7
Cash Flow				

Information

EBITDA (c)	732.9	935.5	1,650.6	956.7
Cash interest, net of amounts capitalized	152.7	244.5	518.0	223.7
Capital expenditures	313.0	357.3	668.1	249.8
Cash flows from operations	418.1	(15.2)	1,042.6	876.1

	As of June 30, 2002
	($ in millions)
Balance Sheet Data	
Total assets	$16,757.2

Short-term borrowings	1,693.5
Capitalization:	
Long-term debt	5,930.5
Company-obligated mandatorily redeemable preferred securities of subsidiary trust holding solely Company debentures	345.0
Preferred stocks of subsidiaries	86.1
Common stockholders' equity	3,579.7
Total capitalization	9,941.3

(a) Results for 1999 and 2000 are not directly comparable to results for 2001 due to the acquisition of Columbia, which occurred on November 1, 2000.

(b) Includes our exploration and production operations, which we announced on October 11, 2002 are for sale.

(c) EBITDA is defined as operating income before depreciation and amortization (excludes other income and income taxes). EBITDA is not a measure of performance under GAAP. While EBITDA should not be considered as a substitute for net income, cash flows from operating activities and other income or cash flow statement data prepared in accordance with GAAP, or as a measure of profitability or liquidity, management understands that EBITDA is customarily used as a measure in evaluating companies.

MATERIAL UNITED STATES TAX CONSEQUENCES TO NON-UNITED STATES HOLDERS

The following summary describes the material United States federal income and estate tax consequences of the purchase, ownership and disposition of common stock by a Non-United States Holder (as defined below) as of the date hereof. This discussion does not address all aspects of United States federal income and estate taxes and does not deal with foreign, state and local consequences that may be relevant to Non-United States Holders in light of their personal circumstances. Special rules may apply to certain Non-United States Holders, such as certain United States expatriates, "controlled foreign corporations," "passive foreign investment companies," "foreign personal holding companies," corporations that accumulate earnings to avoid United States federal income tax, financial institutions, insurance companies, tax-exempt organizations, certain former citizens or former long-term residents of the United States, broker-dealers, traders in securities and Non-United States Holders that hold our common stock as part of a "straddle," "hedge," "conversion transaction," "synthetic security" or other integrated investments, that are subject to special treatment under the Internal Revenue Code of 1986, as amended (the "Code"). Such Non-United States Holders should consult their own tax advisors to determine the United States federal, state, local and other tax consequences that may be relevant to them. Furthermore, the discussion below is based upon the provisions of the Code and regulations, rulings and judicial decisions thereunder as of the date hereof, and such authorities may be repealed, revoked or modified so as to result in United States federal income and estate tax consequences different from those discussed below.

If a partnership holds common stock, the tax treatment of a partner will generally depend on the status of the partner and the activities of the partnership. Persons who are partners of partnerships holding common stock should consult their own tax advisors.

As used herein, a "United States Holder" means a holder of common stock that for United States federal income tax purposes is (i) a citizen or resident of the United States, (ii) a corporation created or organized in or under the laws of the United States or any political subdivision thereof or treated as a United States corporation under the Code or the United States Treasury regulations, (iii) an estate the income of which is subject to United States federal income taxation regardless of its source or (iv) a trust if (1) its administration is subject to the primary supervision of a court within the United States and one or more United States persons have the authority to control all substantial decisions of the trust or (2) it has a valid election in effect under applicable U.S. Treasury regulations to be treated as a United States person. A "Non-United States Holder" is a holder that is not a United States Holder.

An individual may be treated as a resident of the United States in any calendar year for United States federal income tax purposes, instead of a nonresident, by, among other ways, being present in the United States on at least 31 days in that calendar year and for

an aggregate of at least 183 days during a 3-year period ending in the current calendar year. For purposes of this calculation, you would count all of the days present in the current year, one-third of the days present in the immediately preceding year and one-sixth of the days present in the second preceding year. Residents are taxed for United States federal income purposes in the same manner as United States citizens. Such Non-United States Holders should consult their own tax advisors for any United States federal income tax consequences arising pursuant to this calculation.

IN CONSIDERING THE PURCHASE, OWNERSHIP OR DISPOSITION OF COMMON STOCK, YOU SHOULD CONSULT YOUR OWN TAX ADVISOR CONCERNING THE UNITED STATES FEDERAL INCOME TAX CONSEQUENCES IN LIGHT OF YOUR PARTICULAR SITUATION AS WELL AS ANY CONSEQUENCES ARISING UNDER THE LAWS OF ANY OTHER TAXING JURISDICTION.

Dividends

Dividends paid to a Non-United States Holder of common stock generally will be subject to withholding of United States federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. However, dividends that are effectively connected with the conduct of a trade or business by the Non-United States Holder within the United States, and, where a tax treaty applies, are attributable to a United States permanent establishment of the Non-United States Holder, are not subject to the withholding tax, but instead are subject to United States federal income tax on a net income basis at applicable graduated individual or corporate rates. Certain certification and disclosure requirements must be satisfied for effectively connected

income to be exempt from withholding. Any such effectively connected dividends received by a foreign corporation may be subject to an additional "branch profits tax" at a 30% rate or such lower rate as may be specified by an applicable income tax treaty.

A Non-United States Holder that wishes to claim the benefit of an applicable treaty rate (and avoid backup withholding as discussed below in "— Information Reporting and Backup Withholding Tax") for dividends paid will be required (a) to complete Internal Revenue Service ("IRS") Form W-8BEN (or other applicable form) and certify under penalties of perjury that such holder is not a United States person or (b) if the common stock is held through certain foreign intermediaries, to satisfy the relevant certification requirements of applicable U.S. Treasury regulations. Special certification and other requirements apply to certain Non-United States Holders that are entities rather than individuals.

A Non-United States Holder eligible for a reduced rate of United States withholding tax pursuant to an income tax treaty may obtain a refund of any excess amounts withheld by filing an appropriate claim for refund with the IRS.

Gain on Disposition of Common Stock

A Non-United States Holder generally will not be subject to United States federal income tax or any withholding thereof with respect to gain realized on a sale or other disposition of our common stock unless one of the following applies:

- The gain is effectively connected with the Non-United States Holder's conduct of a trade or business in the United States or, alternatively, if an income tax treaty applies, is attributable to a permanent establishment maintained by the Non-United States Holder in the United States. In these cases, the Non-United States Holder will generally be taxed on its net gain derived from the disposition at the regular graduated rates and in the manner applicable to United States persons and, if the Non-United States Holder is a foreign corporation, the "branch profits tax" described above may also apply.

- The Non-United States Holder is an individual who is present in the United States for 183 days or more in the taxable year of the disposition and meets certain other requirements. In this case, the Non-United States Holder will be subject to a 30% tax on the gain derived from the disposition.

- Our common stock constitutes a United States real property interest by reason of our status as a "United States real property holding corporation," or a "USRPHC," for United States federal income tax purposes at any time during the shorter of the 5-year period ending on the date you dispose of our common stock or the period the Non-U.S. Holder held our common stock. We believe that we are not currently and will

not become a USRPHC. The determination of whether we are a USRPHC depends on the fair market value of our United States real property interests relative to the fair market value of our other business assets, and there can be no assurance that we will not become a USRPHC in the future. As long as our common stock is "regularly traded on an established securities market" within the meaning of Section 897(c)(3) of the Code, however, such common stock will be treated as a United States real property interest only if you owned directly or indirectly more than 5 percent of our common stock during the shorter of the 5-year period ending on the date you dispose of such regularly traded common stock or the period you held our common stock and we were a USRPHC during such period. If we are or were to become a USRPHC and a Non-United States Holder owned directly or indirectly more than 5% of our common stock during the period described above or our common stock is not "regularly traded on an established securities market," then a Non-United States Holder would generally be subject to United States federal income tax on its net gain derived from the disposition of our common stock at regular graduated rates.

Federal Estate Tax

Common stock owned or treated as owned by an individual who is not a citizen or resident of the United States for federal estate tax purposes at the time of death will be included in that individual's gross estate for United States federal estate tax purposes, unless an applicable estate tax or other treaty provides otherwise and,

therefore, may be subject to United States federal estate tax. Estates of non-resident aliens are generally allowed a statutory credit that has the effect of offsetting the United States federal estate tax imposed on the first $60,000 of the taxable estate.

Information Reporting and Backup Withholding Tax

We must report annually to the IRS and to each Non-United States Holder the amount of dividends paid to that holder and the tax withheld from those dividends. These reporting requirements apply regardless of whether withholding was reduced or eliminated by an applicable tax treaty. Copies of the information returns reporting those dividends and withholding may also be made available to the tax authorities in the country in which the Non-United States Holder is a resident under the provisions of an applicable income tax treaty or agreement.

Under some circumstances, United States Treasury regulations require backup withholding and additional information reporting on reportable payments on common stock. The gross amount of dividends paid to a Non-United States Holder that fails to certify its Non-United States Holder status in accordance with applicable United States Treasury regulations generally will be reduced by backup withholding at the applicable rate (currently 30%).

The payment of the proceeds of the sale or other disposition of common stock by a Non-United States Holder to or through the United States office of any broker, United States or foreign, generally will be reported to the IRS and reduced by backup withholding, unless the Non-United States Holder either certifies its status as a Non-United States Holder under penalties of perjury or otherwise establishes an exemption. The payment of the proceeds of the disposition of common stock by a Non-United States Holder to or through a non-United States office of a non-United States broker will not be reduced by backup withholding or reported to the IRS, unless the non-United States broker has certain enumerated connections with the United States. In general, the payment of proceeds from the disposition of common stock by or through a non-United States office of a broker that is a United States person or has certain enumerated connections with the United States will be reported to the IRS and may be reduced by backup withholding at the applicable rate (currently 30%) unless the broker receives a statement from the Non-United States Holder that certifies its status as a Non-United States Holder under penalties of perjury or the broker has documentary evidence in its files that the holder is a Non-United States Holder.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a Non-United States Holder can be refunded or credited against the Non-United States Holder's U.S. federal income tax liability, if any, provided that the required information is furnished to the IRS in a timely manner. These backup withholding and information reporting rules are complex and Non-United States

Holders are urged to consult their own tax advisors regarding the application of these rules to them.

UNDERWRITING

We are offering the shares of our common stock described in this prospectus supplement through a number of underwriters. Banc of America Securities LLC and Credit Suisse First Boston Corporation are acting as representatives of the underwriters. We have entered into an underwriting agreement with the underwriters. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters, and each of the underwriters has severally agreed to purchase from us, the number of shares of common stock listed next to its name in the following table:

Underwriter	Number of Shares
Banc of America Securities LLC	13,500,000
Credit Suisse First Boston Corporation	13,500,000
Dresdner Kleinwort Wasserstein Securities LLC	2,250,000
Salomon Smith Barney Inc.	2,250,000
TD Securities (USA) Inc.	2,250,000
Wachovia Securities, Inc.	2,250,000
Total	36,000,000

The underwriting agreement is subject to a number of terms and conditions and provides that the underwriters must buy all of the shares if they buy any of them. The underwriters will sell the shares to the public when and if the underwriters buy the shares from us.

The underwriters will initially offer the shares to the public at the price specified on the cover page of this prospectus supplement. The underwriters may allow to selected dealers a concession of not more than $0.3294 per share. The underwriters may also allow, and any dealers may reallow, a concession of not more than $0.10 per share to selected other dealers. If all the shares are not sold at the public offering price, the underwriters may change the public offering price and the other selling terms. Our common stock is offered subject to a number of conditions, including:

- receipt and acceptance of our common stock by the underwriters, and
- the underwriters' right to reject orders in whole or in part.

We have granted the underwriters an option to purchase up to 5,400,000 additional shares of our common stock at the public offering price less the underwriting discounts and commissions. The underwriters may exercise this option solely for the purpose of covering any over-allotments made in connection with this offering. The underwriters have 30 days from the date of this prospectus supplement to exercise this option. If the underwriters exercise this option, they will each purchase additional shares approximately in proportion to the amounts specified in the table above.

The following table shows, on a per share and total basis, the public offering price, underwriting discounts and commissions to be paid to the underwriters and proceeds before expenses to us, assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

	Per Share	**No Exercise**	**Full Exercise**
Public offering price	$ 18.30	$658,800,000	$757,620,000
Underwriting discounts and commissions	$ 0.549	$ 19,764,000	$ 22,728,600

Proceeds to NiSource	$17.751	$639,036,000	$734,891,400

We estimate that the expenses of this offering, not including the underwriting discounts and commissions, will be approximately $300,000. These expenses are payable by us.

We have entered into a lock-up agreement with the underwriters. Under this agreement, we may not, without the prior written approval of the representatives, offer, sell, contract to sell or otherwise dispose of or hedge our common stock or securities convertible into or exchangeable for our common stock (other than issuances of common stock pursuant to the conversion or exchange of convertible securities or the exercise of warrants or options, grants of employee stock options or issuance of common stock pursuant to the exercise of such options).

These restrictions will be in effect for a period of 90 days after the date of this prospectus supplement. At any time and without notice, the representatives may, in their sole discretion, release all or some of the securities from this lock-up agreement.

We will indemnify the underwriters against various liabilities, including liabilities under the Securities Act. If we are unable to provide this indemnification, we will contribute to payments the underwriters may be required to make in respect of those liabilities.

Our common stock is listed on the New York Stock Exchange under the symbol "NI."

In connection with this offering, the underwriters may engage in activities that stabilize, maintain or otherwise affect the price of our common stock, including:

- stabilizing transactions;
- short sales;
- syndicate covering transactions;
- imposition of penalty bids; and
- purchases to cover positions created by short sales.

Stabilizing transactions consist of bids or purchases made for the purpose of preventing or retarding a decline in the market price of our common stock while this offering is in progress. Stabilizing transactions may include making short sales of our common stock, which involves the sale by the underwriters of a greater number of shares of common stock than they are required to purchase in this offering, and purchasing shares of common stock from us or in the open market to cover positions created by short sales. Short sales may be "covered" shorts, which are short positions in an amount not greater than the underwriters' over-allotment option referred to above, or may be "naked" shorts, which are short positions in excess of that amount.

The underwriters may close out any covered short position either by exercising their over-allotment option, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the price of shares available for purchase in the open market compared to the price at which the underwriters may purchase shares pursuant to the over-allotment option.

A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market that could adversely affect investors who purchased in this offering. To the extent that the underwriters create a naked short position, they will purchase shares in the open market to cover the position.

The representatives may also impose a penalty bid on underwriters and selling group members. This means that if the representatives purchase shares in the open market in stabilizing transactions or to cover short sales, the representatives can require the underwriters or selling group members that sold those shares as part of this offering to repay the concession received by them.

As a result of these activities, the price of our common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them at any time. The underwriters may carry out these transactions on the New York Stock Exchange, in the over-the-counter market or otherwise.

The underwriters and their affiliates have provided certain commercial banking, financial advisory and investment banking services to us and our affiliates for which they have received customary fees. Credit Suisse First Boston, a Swiss bank and an affiliate of Credit Suisse First Boston Corporation, is a lead arranger, syndication agent and a lender under our three-year revolving credit agreement. Citibank, N.A., an affiliate of Salomon Smith Barney Inc., and Toronto Dominion (Texas), Inc., an affiliate of TD Securities (USA) Inc., are co-documentation agents, and Bank of America, N.A., an affiliate of Banc of America Securities LLC, Citicorp USA, Inc., Toronto Dominion (Texas), Inc. and Wachovia Bank, National Association, formerly known as First Union National Bank, an affiliate of Wachovia Securities, Inc. are lenders, under our three-year revolving credit agreement. Bank of America, N.A., Credit Suisse First Boston, Citicorp USA, Inc., Toronto Dominion (Texas),

Inc. and Wachovia Bank, National Association are lenders under our 364-day revolving credit agreement. In addition, we have retained Credit Suisse First Boston Corporation as financial advisor in connection with our intended sale of Columbia Energy Resources and its affiliates, our natural gas exploration and production business. The underwriters and their affiliates may from time to time engage in future transactions with us and our affiliates and provide services to us and our affiliates in the ordinary course of their business.

Approximately $170.2 million of the proceeds of this offering will be paid to affiliates of the underwriters to reduce borrowings under our three-year revolving credit agreement and our 364-day revolving credit agreement. Because more than ten percent of the proceeds of this offering, not including underwriting compensation, will be received by members or affiliates of members of the National Association of Securities Dealers participating in this offering, this offering is being conducted in compliance with the NASD Conduct Rule 2710(c)(8). Pursuant to that rule, the appointment of a qualified independent underwriter is not necessary in connection with this offering, as a bona fide independent market (as defined in the NASD Conduct Rules) exists for our common stock.

NOTICE TO CANADIAN RESIDENTS

Resale Restrictions

The distribution of our common stock in Canada is being made only on a private placement basis exempt from the requirement that we prepare and file a prospectus with the securities regulatory authorities in each province where trades of common stock are made. Any resale of our common stock in Canada must be made under applicable securities laws which will vary depending on the relevant jurisdiction, and which may require resales to be made under available statutory exemptions or under a discretionary exemption granted by the applicable Canadian securities regulatory authority. Canadian purchasers are advised to seek legal advice prior to any resale of our common stock.

Representations of Purchasers

By purchasing our common stock in Canada and accepting a purchase confirmation a purchaser is representing to us and the dealer from whom the purchase confirmation is received that

- the purchaser is entitled under applicable provincial securities laws to purchase the common stock without the benefit of a prospectus qualified under those securities laws;
- where required by law, that the purchaser is purchasing as principal and not as agent; and
- the purchaser has reviewed the text above under Resale Restrictions.

Rights of Action — Ontario Purchasers Only

Under Ontario securities legislation, a purchaser who purchases a security offered by this prospectus during the period of distribution will have a statutory right of action for damages, or while still the owner of the shares, for rescission against us in the event that this prospectus contains a misrepresentation. A purchaser will be deemed to have relied on the misrepresentation. The right of action for damages is exercisable not later than the earlier of 180 days from the date the purchaser first had knowledge of the facts giving rise to the cause of action and three years from the date on which payment is made for the shares. The right of action for rescission is exercisable not later than 180 days from the date on which payment is made for the shares. If a purchaser elects to exercise the right of action for rescission, the purchaser will have no right of action for damages against us. In no case will the amount recoverable in any action exceed the price at which the shares were offered to the purchaser and if the purchaser is shown to have purchased the

securities with knowledge of the misrepresentation, we will have no liability. In the case of an action for damages, we will not be liable for all or any portion of the damages that are proven to not represent the depreciation in value of the shares as a result of the misrepresentation relied upon. These rights are in addition to, and without derogation from, any other rights or remedies available at law to an Ontario purchaser. The foregoing is a summary of the rights available to an Ontario purchaser. Ontario purchasers should refer to the complete text of the relevant statutory provisions.

Enforcement of Legal Rights

All of our directors and officers as well as the experts named herein may be located outside of Canada and, as a result, it may not be possible for Canadian purchasers to effect service of process within Canada upon us or those persons. All or a substantial portion of our assets and the assets of those persons may be located outside of Canada and, as a result, it may not be possible to satisfy a judgment against us or those persons in Canada or to enforce a judgment obtained in Canadian courts against us or those persons outside of Canada.

Taxation and Eligibility for Investment

Canadian purchasers of our common stock should consult their own legal and tax advisors with respect to the tax consequences of an investment in the common stock in their particular circumstances and about the eligibility of the common stock for investment by the purchaser under relevant Canadian legislation.

Relationship with Affiliates of Certain Underwriters

We are in compliance with the terms of the indebtedness owed by us to affiliates of Credit Suisse First Boston Corporation, Banc of America Securities LLC, Salomon Smith Barney Inc., TD Securities (USA) Inc. and Wachovia Securities, Inc. The decision of Credit Suisse First Boston Corporation, Banc of America Securities LLC, Salomon Smith Barney Inc., TD Securities (USA) Inc. and Wachovia Securities, Inc. to distribute our shares of common stock was not influenced by their respective affiliates that are our lenders and those affiliates had no involvement in determining whether or when to distribute our shares of common stock under this offering or the terms of this offering. Credit Suisse First Boston Corporation, Banc of America Securities LLC, Salomon Smith Barney Inc., TD Securities (USA) Inc. and Wachovia Securities, Inc. will not receive any benefit from this offering other than the underwriting discounts and commissions paid by us.

LEGAL MATTERS

The validity of the common stock will be passed upon for us by Schiff Hardin & Waite, Chicago, Illinois. Peter V. Fazio, Jr., a partner of the firm who also serves as executive vice president and general counsel of NiSource, holds approximately 11,400 shares of NiSource's common stock. The underwriters have been represented by Dewey Ballantine LLP, New York, New York.

EXPERTS

The consolidated financial statements and schedules of NiSource incorporated by reference herein have been audited by Arthur Andersen LLP, independent public accountants, as indicated in their reports with respect thereto, and are incorporated by reference herein in reliance upon the authority of said firm as experts in giving said reports.

PROSPECTUS

$2,500,000,000

NiSource Inc.

Common Stock

Preferred Stock
Guarantees of Debt Securities

NiSource Finance Corp.

Debt Securities

Guaranteed as Set Forth in This Prospectus by NiSource Inc.

NiSource Inc. may offer, from time to time, in amounts, at prices and on terms that it will determine at the time of offering, any or all of the following:

- shares of common stock, including preferred stock purchase rights;
- shares of preferred stock, in one or more series.

NiSource Finance Corp., a wholly owned subsidiary of NiSource, may offer from time to time in amounts, at prices and on terms to be determined at the time of the offering, one or more series of its debt securities. NiSource will fully and unconditionally guarantee the obligations of NiSource Finance under any debt securities issued under this prospectus or any prospectus supplement.

We will provide specific terms of these securities, including their offering prices, in prospectus supplements to this prospectus. The prospectus supplements may also add, update or change information contained in this prospectus. You should read this prospectus and any prospectus supplement carefully before you invest.

We may offer these securities to or through underwriters, through dealers or agents, directly to you or through a combination of these methods. You can find additional

information about our plan of distribution for the securities under the heading "Plan of Distribution" beginning on page 19 of this prospectus. We will also describe the plan of distribution for any particular offering of these securities in the applicable prospectus supplement. This prospectus may not be used to sell our securities unless it is accompanied by a prospectus supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved these securities or determined if this Prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is November 20, 2000.