

**Direct Testimony on Rehearing**  
**of**  
**Mike Luth**

Rates Department  
Financial Analysis Division  
Illinois Commerce Commission

Northern Illinois Gas Company d/b/a Nicor Gas Company  
Proposed general increase in natural gas rates

Docket No. 04-0779

**December 8, 2005**

Witness Identification

1 Q. Please state your name and business address.

2 A. Mike Luth, Illinois Commerce Commission, 527 East Capitol Avenue,  
3 Springfield, Illinois 62701.

4 Q. Are you the same Mike Luth who previously filed testimony in this docket?

5 A. Yes, I am.

Introduction to Testimony

6 Q. What is the subject matter of this testimony?

7 A. I am commenting on the rate design effects resulting from the Illinois  
8 Commerce Commission's ("Commission") acceptance of an adjustment  
9 recommended by the People of the State of Illinois ("AG") to Northern  
10 Illinois Gas Company's ("Nicor") test year estimate of therms distributed to  
11 Rate 1 customers. (Order dated September 20, 2005, p. 105)

12 Q. Why are you addressing the rate design effects resulting from the  
13 Commission's acceptance of the AG's adjustment to Rate 1 therms?

14 A. The Commission's Notice of Continuance of Hearing dated November 23<sup>rd</sup>,  
15 2005 includes the following question to be considered in the Rehearing of  
16 this docket:

17 Does the AG's adjustment to Rate 1 therms represent an  
18 increase in the total number of therms used for rate design, or  
19 should the increase be offset by a corresponding decrease in  
20 the number of therms used to calculate the other rates?

21 Additionally, in its November 22<sup>nd</sup>, 2005 Regular Open Meeting, the  
22 Commission asked five questions pertaining to the rehearing of the Rate 1  
23 adjustment, which were:

24 1) Should the Commission's decision to accept the AG's  
25 adjustment to test year Rate 1 therms impact the number  
26 therms used as billing determinants for any other rate  
27 classifications?,

28 2) What specific section of the Order concludes that a  
29 corresponding adjustment to the number of therms  
30 used calculate rates for Rate 4 customers is  
31 necessary?,

32 3) What specific section of the Order rules that the total  
33 estimated usage ratemaking purposes shall remain  
34 unchanged despite the finding Rate 1 usage will be  
35 higher than Nicor originally estimated?,

36 4) Is usage for Rate 4 customers underestimated if a  
37 corresponding downward adjustment is made to the  
38 number of therms used to calculate the rates for Rate  
39 4 customers?, and

40 5) If the Commission did adopt the position that a  
41 corresponding adjustment to the therms used  
42 calculate rates for another rate class is appropriate,  
43 should Rate 4 customers bare the full impact of that  
44 adjustment?

45 Thus, the Commission is seeking additional information and interpretation of  
46 the effect of an increase to estimated test year Rate 1 therms, and may re-  
47 consider the Clarification Order.

48 Q. Please summarize your direct testimony on rehearing.

49 A. I recommend that the Commission find that an adjustment to Rate 1 therms  
50 does not require an offsetting adjustment to therms distributed under any  
51 other rate. My recommendation would reverse the effects of the

52 Commission's Clarification Order issued on November 22<sup>nd</sup>, 2005  
53 ("Clarification Order") which found that the adjustment to increase the  
54 estimate of therms distributed to Rate 1 customers results in an offsetting  
55 decrease in therms distributed under Rate 4. (Clarification Order, p. 1) The  
56 Commission's conclusion appears to be based upon Nicor's contention that  
57 its projection of total therm sendout was not challenged by any party,  
58 despite the adjustment to Rate 1 therms proposed by the AG. (Clarification  
59 Order, p. 2) Under Nicor's reasoning, given an increase in Rate 1 therms,  
60 an equal offsetting decrease in therms distributed under other rates is  
61 necessary in order to preserve the projection of total sendout. Nicor further  
62 rationalized that the offsetting decrease to Rate 4 therms is necessary  
63 because the Order specified a 10.39% increase in revenues that totals  
64 \$54,239,000 from revenues at current rates of \$504,108,000 so that revised  
65 rates result in revenues totaling \$558,347,000. (Clarification Order, pp. 2  
66 and 3)

67 In the alternative, if the Order on Rehearing maintains the conclusion that  
68 an increase in Rate 1 therms necessitates an offsetting decrease in therms  
69 distributed under other rates in order to preserve Nicor's projection of total  
70 sendout, the offset should be spread among all rate classes as described  
71 later in my testimony.

72 Q. Please explain why the adjustment to Rate 1 sales does not require an  
73 offsetting adjustment to therms distributed under any other rate.

74 A. Nothing in the AG's adjustment suggests that an offsetting Rate 4  
75 adjustment is necessary or required. The adjustment refers only to a  
76 recommended increase in Nicor's estimated Rate 1 sales. (AG Exhibit 1.0,  
77 p. 18, line 11 through p. 19, line 19; and AG Exhibit 1.0, Schedule C-1)  
78 Nicor's Emergency Motion Regarding Compliance Tariffs filed October 5,  
79 2005, which initiated the Clarification Order, suggests that because the AG  
80 did not recommend an increase in Nicor's projected total sendout, it is  
81 necessary to offset the Rate 1 adjustment accepted by the Commission  
82 with a reduction in therms to another rate. Without any apparent basis,  
83 Nicor selected test year Rate 4 therm sales as an offset to the Rate 1  
84 increase. The AG's silence on the effect of its adjustment to Rate 1 therms  
85 does not amount to a validation of Nicor's estimate of total therm sendout.  
86 The AG's Rate 1 adjustment indicates that a factor in Nicor's estimate of  
87 total therm sendout was wrong and should be corrected. Since the  
88 Commission found that a factor in Nicor's estimate of total therm sendout  
89 was in need of adjustment, total therm sendout should also be considered  
90 to be adjusted. Since the AG's adjustment increased Rate 1 therm sales,  
91 total therms should be increased by the same amount. I explain the need  
92 and appropriateness of such an adjustment later in my testimony.

93 Q. Is it appropriate to adjust Rate 4 therms to maintain the same level of total  
94 therms?

95 A. No, it would not be proper or appropriate to adjust Rate 4 therms to  
96 maintain the same level of total therms. It is intuitive that there is not an

97 inverse relationship between Rate 1 therms and Rate 4 therms, in which an  
98 increase in Rate 1 therms causes a decrease in Rate 4 therms. Nicor has  
99 not demonstrated an inverse relationship between Rate 1 therms and Rate  
100 4 therms. Without a demonstrated inverse relationship between Rate 1  
101 therms and Rate 4 therms, it is improper to offset an increase in Rate 1  
102 therms with a decrease in Rate 4 therms. In its Order on Rehearing, the  
103 Commission should find that Rate 4 therms remain at the level presented in  
104 the Company's surrebuttal testimony. (Nicor Gas Exhibit 44.4, p. 3 of 26,  
105 column (C), lines 20 through 22)

106 Q. Have you reviewed any materials that indicate that an adjustment to an  
107 element of the Company's forecast of total sendout would necessarily also  
108 affect total sendout, rather than necessitating an offsetting adjustment to  
109 another element of the Company's forecast of total sendout?

110 A. Yes, I have. In its response to Staff data request ML 3.02, Nicor agreed  
111 that a change in the number of assumed or estimated residential customers  
112 would affect total sendout (See Attachment A for relevant Nicor response to  
113 Staff data request ML 3.02). The number of assumed or estimated  
114 residential customers is a change in one of the factors or inputs into Nicor's  
115 forecast of total sendout, and is similar to the change in therms resulting  
116 from customer growth represented by the AG's adjustment in that both  
117 customer count and therms are inputs into the forecast of total therms. The  
118 AG's adjustment, accepted by the Commission, was based upon Nicor's  
119 lack of support for an assumed loss of therms under Rate 1 from the 2004

120 to 2005 despite growth in the number of Rate 1 customers. With the  
121 Commission's acceptance of the AG's adjustment to one of the factors in  
122 the total sendout forecast, loss of Rate 1 therms, it logically follows that  
123 total sendout would be affected in the same direction as the change  
124 resulting from the AG's adjustment. Lacking an inverse relationship  
125 between Rate 1 therms and Rate 4 therms, Nicor's reduction of Rate 4  
126 therms as a result of the Commission acceptance of the AG's increase to  
127 Rate 1 therms is inappropriate.

128 Based upon estimates of test year therms distributed under Rate 4, an  
129 adjustment to reduce Rate 4 therms solely on the basis as an offset to the  
130 increase to Rate 1 therms in order to preserve the original, unadjusted total  
131 sendout projection would underestimate Rate 4 therms. During the course  
132 of testimony in the docket, no party, including Nicor, suggested that an  
133 increase in Rate 1 therms would result in a corresponding decrease in Rate  
134 4 therms, or in therms distributed under any other rate. Without any  
135 testimony to suggest that Rate 4 therms should be reduced, the Order  
136 properly does not contain any discussion that total estimated usage for  
137 ratemaking should remain unchanged despite the finding that Rate 1 will be  
138 higher than Nicor originally estimated, nor does the Order rule that a  
139 corresponding offsetting adjustment should be made to reduce Rate 4  
140 therms for the purpose of determining rates.

141 Q. Have you reviewed any materials that confirm the lack of an inverse  
142 relationship between Rate 1 and Rate 4 therms?

143 A. Yes. In Staff data request ML 3.04, the Company was asked whether it  
144 was the Company's position that an inverse relationship exists between  
145 Rate 1 therms and Rate 4 therms. Nicor's response did not address  
146 whether or not an inverse relationship exists between Rate 1 and Rate 4  
147 therms. Instead, Nicor attempted to defend the unassailability of its  
148 projection of total sendout, indicating that an increase in Rate 1 therms  
149 must necessarily be offset by a decrease in therms distributed to another  
150 rate class so that total sendout would be unchanged by the Rate 1  
151 adjustment. The Company's lack of a response to a direct inquiry as to  
152 whether it is Nicor's position that an inverse relationship exists between  
153 Rate 1 and Rate 4 therms indicates that Nicor has no reason to believe that  
154 there is an inverse relationship between Rate 1 and Rate 4 therms. (See  
155 Attachment A for relevant Nicor Response to Staff Data Request ML-3.04)  
156 Without a demonstrated inverse relationship between Rate 1 therms and  
157 Rate 4 therms, in which an increase to Rate 1 therms causes a  
158 corresponding decrease by the same volume as the Rate 1 increase in  
159 Rate 4 therms, the Commission's acceptance of the adjustment to increase  
160 Rate 1 therms should not impact therms used to determine rates for Rate 4  
161 customers or any other rate class.

162 Q. Please explain the nature and extent of the relationship among (1) the AG's  
163 adjustment accepted by the Commission, (2) test year revenue

164 requirement, (3) revenues at current and existing rates, and (4) the  
165 calculation or design of rates to recover the revenue requirement.

166 A. By accepting the AG's adjustment to Rate 1 therms, the Commission  
167 concluded that Nicor had understated Rate 1 therms for the test year. With  
168 an increase in test year Rate 1 therms distributed, Rate 1 sales are  
169 increased at both current rates and at revised rates. With an increase in  
170 sales, revenues are increased at both current rates and at revised rates. A  
171 simple example would be a preliminary test year estimate of 1,000 therms  
172 at a hypothetical current rate of 20¢ per therm resulting in test year  
173 revenues of \$200 at current rates. A conclusion that the 1,000 therms  
174 estimate is understated and should be 1,100 therms results in test year  
175 revenues of \$220 at current rates. With a test year revenue requirement of  
176 \$330, revised rates would be 30¢ per therm (\$330 divided by 1,100  
177 therms), resulting in a 50 percent increase (30¢ divided by 20¢). If test  
178 year therms had not been adjusted, revised rates would have been 33¢ per  
179 therm (\$330 divided by 1,000 therms), resulting in a 65 percent increase  
180 (33¢ divided by 20¢). This simple illustration shows that there is a  
181 relationship between revenues and rate design, and that revenues and rate  
182 design are not mutually exclusive. Rates multiplied by billing units such as  
183 therms show what revenues are recovered by current rates, while revenue  
184 requirement divided by billing units such as therms determines the  
185 revisions to rates from current rates necessary to recover test year revenue  
186 requirement.

187 Q. How should the Order on Rehearing present the AG's adjustment?

188 A. A column should be added to the "Adjustments to Operating Income" pages  
189 in Appendix A attached to the Commission's Amending Order  
190 ("Amending Order") (Amending Order dated September 28, 2005,  
191 Appendix, pp. 2 through 4) which would present the amount of revenues at  
192 current (now former) rates corresponding to the AG's adjustment to Rate 1  
193 terms, or \$5.398 million (AG Exhibit 1.0, Schedule C). The revenues  
194 adjustment would appear on line no. 1 in a column on pages 2, 3, or 4 of  
195 the appendix. The adjustment would carry over to page 1 of the appendix,  
196 columns (c) and (d), line no. 1.

197 Appearance of the AG's adjustment in the Amending Order's Appendix A  
198 revenue requirement would not affect the total revenue requirement  
199 approved in the Order. The AG's adjustment increases the amount of  
200 revenues recovered at current (now former) rates, so the amount of the  
201 overall increase in revenues would be reduced when determining revised  
202 rates based upon the Order. This treatment of the AG's adjustment, and  
203 the results to the amount and percentage of increase is not unlike the  
204 Accumulated Deferred Income Taxes adjustment that necessitated the  
205 Amending Order. The Amending Order increased the revenue  
206 requirement presented in Appendix A compared to the Order dated  
207 September 20<sup>th</sup>, 2005 so that the revenue requirement in the Appendix  
208 agreed to the conclusions in the Order pertaining to Section 263A  
209 Accumulated Deferred Income Taxes. Finding (7) of the Amending Order

210 revised Finding (7) of the original Order from \$549,689,000 in base rate  
211 operating revenues to \$558,347,000. Finding (10) of the Amendatory  
212 Order revised Finding (10) of the original Order from \$549,689,000 in base  
213 rate operating revenues to \$558,347,000; for a gross increase revised to  
214 \$54,239,000 or 10.39% from a gross increase of \$45,581,000 or 8.73%.  
215 The changes that should be made to the Order's appendix are shown on  
216 Schedule 1 attached to this testimony.

217 The revision to the Amendatory Order that I am recommending will  
218 maintain the same \$558,347,000 revenue requirement, reduce the increase  
219 from \$54,239,000 to approximately \$48,841,000 because revenues at  
220 present rates will be increased, and reduce the percentage increase from  
221 10.39% to 9.26%. Schedule 2 attached to this testimony revises Finding  
222 (10) of the Amendatory Order so that it is consistent with my  
223 recommendations. These revisions demonstrate that the AG's adjustment  
224 is not a revenue requirement adjustment, and therefore not circular,  
225 because total test year revenue requirement is not affected by the  
226 adjustment.

227 Q. If, on Rehearing, the Commission concludes that an increase in Rate 1  
228 therms necessitates an offsetting decrease in therms distributed under  
229 other rates in order to preserve Nicor's projection of total sendout, should  
230 the offsetting adjustment be limited to Rate 4, as proposed by Nicor?

231 A. No. Nicor has not shown that an inverse relationship exists between Rate  
232 1 and Rate 4 therms, nor has Nicor shown that an inverse relationship  
233 exists between Rate 1 therms and any other rates. As a result, limiting the  
234 offset of the Rate 1 adjustment to Rate 4 is arbitrary. Thus, if the Order on  
235 Rehearing maintains the Clarification Order's conclusion that the Rate 1  
236 adjustment should be offset to preserve Nicor's forecast of total sendout,  
237 the offset should be spread among all rate classes. The offset should be  
238 based upon the percentage of total test year therms sent out under each  
239 rate class, as shown on Schedule 3 attached to this testimony. Since a  
240 demonstrable inverse relationship between Rate 1 and any other rate does  
241 not exist, spreading the offset to the Rate 1 adjustment among other rates  
242 based upon the percentage of therms distributed under each rate is  
243 reasonable because it does not arbitrarily select one specific rate to fully  
244 absorb the offset. Nicor's choice of Rate 4 to fully absorb the offset to the  
245 increase in Rate 1 therms should therefore be rejected.

246 Q. Does this conclude your direct testimony on rehearing?

247 A. Yes, it does.

**Northern Illinois Gas Company  
d/b/a Nicor Gas Company  
Response to:  
Illinois Commerce Commission  
III. C. C. Docket No. 04-0779  
ML Third Data Request**

ML 3.02 Q. Would a change in assumptions concerning the number of customers in one customer class affect total sendout “statistically developed by the Company . . . based on a ‘Gas Sendout/Customer’ regression methodology”, as described in Nicor Gas Exhibit 17.0, page 27, lines 596-599? For example, if the number of assumed or projected Rate 1 customers were reduced to zero, would a different total sendout result when compared to approximately 1,929,264 Rate 1 customers assumed or projected in Nicor Gas Company Exhibit 17.6, page 1 of 6, line no. 2 (23,151,170 divided by 12 monthly billings per Rate 1 customer)? If the Company does not expect that total sendout would be affected by a reduction of 1,929,264 assumed or projected Rate 1 customers to zero, please explain why total sendout would not be affected.

ML 3.02 A.<sup>1</sup> If the value of inputs into Nicor Gas’ forecasting models are changed or other underlying assumptions are modified, then forecasted sendout would change.

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ML 3.04 Q. Is the Company’s position that an inverse relationship exists between Rate 1 distribution and Rate 4 distribution, where an increase in gas distributed under Rate 1 causes a decrease, by the same amount, in gas distributed under Rate 4? If it is the Company’s position that an inverse relationship exists between gas distributed under Rate 1 and gas distributed under Rate 4, explain what factors cause the inverse relationship.

ML 3.04 A.<sup>1</sup> It is Nicor Gas’ position that the Commission accepted a specified total amount of therms over which the Company would obtain its revenue requirements. Additionally, no other party proposed a different total magnitude of therms. Consequently, increasing the therms for one rate class without a corresponding decrease in therms for another rate class violates the Commission’s approval of the total therm amount.

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<sup>1</sup> Partial response. Remainder of full response was not relevant to question asked.



**Northern Illinois Gas Company**  
**Adjustments to Operating Income**  
 For the Test Year Ending December 31, 2005  
 (In Thousands)

Line No.	Description	Subtotal Operating Statement Adjustments	Budget Payment Plan- Interest Expense (Per Order)	Customer Deposits- Interest Expense (Per Order)	Uncoll. Expense 31-Mar-05 Update (Per Order)	Gas Storage Losses 31-Mar-05 Update (Per Order)	Rate 1 Growth (Per Order)	(x)	Total Operating Statement Adjustments
	(a)	(r)	(s)	(t)	(u)	(v)	(w)	(x)	(y)
1	Base Rates Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,398	\$ -	\$ 5,398
2	PGA Revenues	-	-	-	-	-	-	-	-
3	ECR Revenues (Coal Tar)	-	-	-	-	-	-	-	-
4	Other Revenues	-	-	-	-	-	-	-	-
5	Total Operating Revenue	-	-	-	-	-	5,398	-	5,398
6	Uncollectibles Expense	23,417	-	-	1,722	-	76	-	25,215
7	Cost of Gas	-	-	-	-	-	-	-	-
8	Storage	9,972	-	-	-	1,463	-	-	11,435
9	Transmission	-	-	-	-	-	-	-	-
10	Distribution	-	-	-	-	-	-	-	-
11	Customer Accounts	-	-	-	-	-	-	-	-
12	Customer Services and Informational Services	-	-	-	-	-	-	-	-
13	Sales	-	-	-	-	-	-	-	-
14	Administrative and General	(14,438)	1,428	477	-	-	-	-	(12,533)
15	Depreciation	(124)	-	-	-	-	-	-	(124)
16	Taxes Other Than Income	(504)	-	-	-	-	-	-	(504)
17	Total Operating Expense	18,323	1,428	477	1,722	1,463	76	-	23,489
18	Before Income Taxes								
19	State Income Tax	(894)	(104)	(35)	(126)	(107)	389	-	(877)
20	Federal Income Tax	(3,979)	(463)	(155)	(559)	(475)	1,727	-	(3,904)
21	Deferred Taxes and ITCs Net	-	-	-	-	-	-	-	-
22	Total Operating Expenses	13,450	861	287	1,037	881	2,192	-	18,708
23	NET OPERATING INCOME	\$ (13,450)	\$ (861)	\$ (287)	\$ (1,037)	\$ (881)	\$ 3,206	\$ -	\$ (13,310)

Nicor Gas Company  
Restatement of Order Finding (10)  
Based upon Adjustment to Rate 1 Therms

- (10) Nicor should be authorized to place into effect tariff sheets designed to produce annual base rate revenues of \$558,347,000, which represent a gross increase of ~~\$54,239,000~~ \$48,842,000 or ~~10.39%~~ 9.26%; such revenues will provide Nicor with an opportunity to earn the rate of return set forth in Finding (6) above; based on the record in this proceeding, this return is just and reasonable;

Nicor Gas Company  
 Allocation of Offset to AG Adjustment  
 For the test year ending December 31st, 2005

	<u>Nicor Exhibit 44.4</u>	<u>Percentage of Total, excluding Rate 1</u>	<u>AG Adjustment</u>	<u>Revised</u>
<u>Rate 1</u>				
1st Block	419,938		18,684	438,622
2nd Block	409,096		8,378	417,474
3rd Block	1,427,062		18,827	1,445,889
<u>Rate 4</u>				
1st Block	179,574	0.07137	(3,275)	176,299
2nd Block	554,789	0.22050	(10,119)	544,670
3rd Block	129,807	0.05159	(2,368)	127,439
<u>Rate 5 - summer</u>				
1st Block	313	0.00012	(6)	307
2nd Block	2,308	0.00092	(42)	2,266
3rd Block	3,510	0.00140	(64)	3,446
<u>Rate 5 - winter</u>				
1st Block	25	0.00001	(0)	25
2nd Block	38	0.00002	(1)	37
3rd Block	6	0.00000	(0)	6
Rate 6	7,867	0.00313	(143)	7,724
Rate 7		-	-	-
<u>Rate 10</u>				
1st Block	15	0.00001	(0)	15
2nd Block	160	0.00006	(3)	157
3rd Block	15	0.00001	(0)	15
<u>Rate 11</u>				
1st Block	33	0.00001	(1)	32
2nd Block	82	0.00003	(1)	81
3rd Block	16	0.00001	(0)	16
Rates 17 and 19	392,710	0.15608	(7,163)	385,547
<u>Rate 74</u>				
1st Block	18,942	0.00753	(345)	18,597
2nd Block	216,720	0.08614	(3,953)	212,767
3rd Block	331,280	0.13167	(6,042)	325,238

Nicor Gas Company  
 Allocation of Offset to AG Adjustment  
 For the test year ending December 31st, 2005

	<u>Nicor Exhibit 44.4</u>	<u>Percentage of Total, excluding Rate 1</u>	<u>AG Adjustment</u>	<u>Revised</u>
<u>Rate 75 - summer</u>				
1st Block	83	0.00003	(2)	81
2nd Block	2,279	0.00091	(42)	2,237
3rd Block	21,946	0.00872	(400)	21,546
<u>Rate 75 - winter</u>				
1st Block	19	0.00001	(0)	19
2nd Block	184	0.00007	(3)	181
3rd Block	284	0.00011	(5)	279
Rate 76	329,401	0.13092	(6,008)	323,393
Rate 77	<u>323,616</u>	<u>0.12862</u>	<u>(5,902)</u>	<u>317,714</u>
	<u><u>4,772,118</u></u>	<u><u>1.00000</u></u>	<u><u>(0)</u></u>	<u><u>4,772,118</u></u>