IIEC/CNE Joint Exhibit 2

STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

Northern Illinois Gas Company d/b/a Nicor Gas Company	)	
	)	**Docket No. 04-0779**
Proposed general increase in gas rates, and revisions to other terms and conditions of service	)	

Rebuttal Testimony and Schedules of

Dr. Alan Rosenberg

On Behalf of

Illinois Industrial Energy Consumers
and
Constellation NewEnergy – Gas Division

May 3, 2005
Project 8319

BRUBAKER & ASSOCIATES, INC.
ST. LOUIS, MO 63141-2000

STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

Northern Illinois Gas Company d/b/a Nicor Gas Company	**)**	
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Proposed general increase in gas rates, and revisions to other terms and conditions of service	**)**	

Rebuttal Testimony of Alan Rosenberg

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A My name is Dr. Alan Rosenberg. My business address is 1215 Fern Ridge Parkway, Suite 208; St. Louis, Missouri 63141.

Q ARE YOU THE SAME ALAN ROSENBERG WHO FILED DIRECT TESTIMONY IN THIS CASE?

A Yes.

Q WHAT IS THE SUBJECT OF YOUR REBUTTAL TESTIMONY?

A I would like to respond to the rebuttal testimony of Nicor witness Mr. Bartlett and Staff Witness Mr. Borden, particularly to Mr. Bartlett's rebuttal of my direct testimony on the subject of mandatory cycling and the issue of the SBS capacity entitlement. In my direct testimony I showed that: (a) Nicor itself does not meet their own suggested maximum and minimum limits, and (b) provided a simplified illustration to show that abiding by the proposed max-min limits by transportation customers may in fact lead to higher costs for sales customers.

Q HOW DID MR. BARTLETT RESPOND TO YOUR DIRECT TESTIMONY?

A As I read his testimony, he makes a number of arguments to counter my direct testimony. If I could summarize his three main points, they are as follows:

- He asserts that I "could not be more wrong" in stating that cycling requirements are operationally unnecessary. (Nicor Exhibit 24.0, page 20 of 38, lines 452-453).
- He asserts that my illustrative example is "bizarre," "nonsensical," "assumes perfect knowledge," is "unrealistic" and irrelevant (Nicor Exhibit 24.0, pages 21-22). He then takes my example, substitutes some historic FOM gas prices and concludes that in his revised example, the cycling contributes to higher gas cost for sales customers, but less so than not cycling. (Nicor Exhibit 24.2)
- He states that transportation customers make Nicor's "job harder." (Nicor Exhibit 24.0, at 24, line 538).

Q ARE YOU PERSUADED THAT NICOR'S PROPOSAL ON CYCLING SHOULD BE ADOPTED?

A No. I will respond to Mr. Bartlett's allegations one by one. Perhaps the easiest one to respond to is the first point above. Mr. Bartlett simply misstates my testimony. I never stated or implied that the cycling requirements are operationally or physically unnecessary. To the contrary, my position was that Nicor is fully capable of physically cycling its aquifer storage fields ***even without the proposed min-max conditions on transportation banks.*** Mr. Bartlett, conceding that I actually did not make the statement he attributes to me, suggested in responses to data requests (Nicor's response to Data Request IIEC 4.12) that my testimony in IIEC/CNE Exhibit 1.0 at page 5, lines 4-8, made "it appear" to him that I "implied" that cycling requirements were unnecessary. However, what I said was:

> "**Q ARE YOU AWARE THAT NICOR'S AQUIFER STORAGE FIELDS OPERATIONALLY REQUIRE THAT GAS BE INJECTED AND WITHDRAWN OVER A YEAR IN ORDER TO MAINTAIN PEAK PERFORMANCE?**

> A I am aware that Nicor does make this claim. Note, however, that this does not imply that one necessarily has to maximize the working gas inventory on November 1 and minimize it by April 1. I do not believe the aquifer fields can read the calendar. It only means that periodically the fields have to be filled up and periodically the fields have to be emptied."

The only reasonable implication to be drawn from my testimony is that the fields do need to be cycled, but not necessarily on specific dates.

Q DID MR. BARTLETT DISPUTE YOUR *ACTUAL* POSITION?

A No. It is incontrovertible that Nicor can still physically operate its storage fields in *whatever* manner it deems desirable, for the simple reason that it has been doing so for the last ten years that SBS service has been used. The only new circumstance that I can discern in this case is the proposed treatment of Hub revenues. To put it bluntly, Nicor *can* physically cycle its storage fields, in the manner it deems appropriate, *regardless* of how the transportation customers utilize their storage entitlements. Mr. Bartlett cannot refute that. Perhaps that is why Mr. Bartlett chose to respond to a straw-man argument.

Q TURNING TO YOUR ILLUSTRATION, HOW DO YOU RESPOND TO MR. BARTLETT'S ALLEGATION THAT IT IS BIZARRE, ASSUMES PERFECT KNOWLEDGE, UNREALISTIC, AND IRRELEVANT?

A Mr. Bartlett alleges that the proposed cycling requirement might actually harm sales customers is odd because he seems to take it as axiomatic that any type of behavior that benefits transportation customers must necessarily harm sales customers. As Mr. Bartlett puts it:

> The question the Commission must confront, and that Dr. Rosenberg should have confronted, is why would transportation customers act in a manner that is so beneficial to sales customers when, logic would dictate, it must be so harmful to transportation customers.

Mr. Bartlett believes that when transportation customers act in their own self-interest, the inevitable result must be harm to sales customers. However, when explicitly asked to explain this "logic," all Mr. Bartlett could say was that it was "based on his experience" (Nicor's response to Data Request IIEC 4.14). That weak response is neither logic nor evidence. Also, if we accept Mr. Bartlett's "logic" then we must necessarily conclude that the cycling requirement is inimical to the economic self-interest of transportation customers, although Mr. Bartlett does not accept that conclusion. Transportation customers will act in their own economic self-interest. All that I am saying is that this will not necessarily harm sales customers. Moreover, when any customer pays for the use of an asset, that customer should have the right to act in its own economic self-interest.

As to his second objection, I simply fail to see why my illustration assumes perfect knowledge. He does not explain how it assumes perfect knowledge, by whom, or what knowledge. (It should be noted that CNE/IIEC Joint Exhibit 1, Schedules 1 and 2, as well as Nicor Gas Exhibit 24.2, use a single gas price for the month, while actual gas prices can fluctuate from day to day. This is an expedient, however, for the sake of clarity. It does not fundamentally alter the underlying concepts illustrated.) In fact, the only assumptions inherent in my illustration are that: (a) average gas prices are higher in the withdrawal period than in the injection period; (b) Nicor continues to cycle its storage fields in the manner in which it has on a historic basis, regardless of the behavior of the transportation customers, and (c) transportation customers cycle their gas in a parallel manner in one case (for

IIEC/CNE Joint Exhibit 1, Schedule 1) and do not cycle their gas at all in another case (Schedule 2).

The fact of the matter is Nicor does not have perfect knowledge of many factors that will impact the storage balances, such as sales customers' usage or NYMEX future prices. Moreover, Nicor is not proposing to limit injections or withdrawals from storage based on NYMEX future prices. It should also be noted that Nicor itself acknowledges that the primary drivers for Nicor's own storage utilization are not gas prices, but the operational demands of the system (Nicor's response to Data Request IIEC 4.17). Consequently, Mr. Bartlett's protests are simply a smoke-screen he throws up because the indications of my example do not conform to his pre-conceived notions.

As to his allegations that my example is unrealistic and irrelevant, I need only point out that Mr. Bartlett used a similar illustration, with only the monthly gas prices changed from my scenarios, in an attempt to refute my central point.

Q WHAT WAS YOUR CENTRAL POINT?

A My central point was that requiring transportation customer to cycle their storage balances in a manner parallel to how the storage field is operated (filled and depleted) might actually <u>increase</u> purchased gas costs for sales customers relative to the case where the transportation customers do not cycle their gas at all. This of course was meant to refute Mr. Bartlett's claim in his direct testimony that the min-max proposal was needed to protect sales customers.

Q HOW DO THE TWO EXAMPLES – THE ONE YOU PRESENTED IN YOUR DIRECT TESTIMONY (IIEC/CNE JOINT EXHIBIT 1, SCHEDULES 1 AND 2) AND THE MODIFIED ONE MR. BARTLETT PRESENTS IN HIS REBUTTAL TESTIMONY (NICOR EXHIBIT 24.2) – COMPARE?

A The following table contrasts my example with Mr. Bartlett's:

TABLE 1
Effect on Sales Customers

Scenario	CNE/IIEC Jt. Ex. Schs. 1 & 2	Nicor Gas Exhibit 24.2
Transportation Customers Cycle Gas Balances	Sales Customers Benefit by ~ $40 M	Sales Customers Harmed by ~ $8 M
Transportation Customers Do Not Cycle Gas Balances	Sales Customers Benefit by ~ $80 M	Sales Customers Harmed by ~ $12 M

In other words, my exhibit showed that cycling of transportation gas reduced the benefit of the storage for the PGA customers while Mr. Bartlett's exhibit showed that the cycling produced a small benefit for the PGA customers vis-à-vis no cycling.

Q HOW DO YOU EXPLAIN THE DISPARATE RESULTS OF THE TWO EXHIBITS?

A There is a simple explanation. The *only* reason the two exhibits show disparate results is that in my exhibit I used hypothetical gas prices which displayed higher gas prices in the withdrawal season relative to the injection season, while Mr. Bartlett's exhibit used Chicago City Gate prices for the period November 2003 through October 2004, which displayed an opposite pattern, i.e., higher gas prices in the warm weather months (May through October) than in the cold weather months.

Q IS MR. BARTLETT'S EXHIBIT REALISTIC?

A It is realistic in the sense that it occasionally happens – however it is far from typical. Over the last 11 years, there were only three times when the average prices during the months of May through October were higher than they were the ensuing six months. Consequently, I find it ironic that Mr. Bartlett calls my exhibit unrealistic. In fact, had Mr. Bartlett taken the most recent twelve month period (May 2004 through April 2005) instead of the period he used (November 2003 through October 2004), his exhibit would look like Schedule 1 of this rebuttal testimony. It would have demonstrated the same conclusion that I made in my direct testimony – the transportation cycling scenario produces a *worse* result for the sales customers than the scenario with absolutely no transportation cycling.

Q WHAT CONCLUSION CAN BE DRAWN FROM MR. BARTLETT'S EXHIBIT?

A To recapitulate, Mr. Bartlett concluded that if transportation customers cycled their balances, the PGA was $8 million higher as a result of Nicor's storage activities while with no cycling the PGA was $12 million higher. What Mr. Bartlett did not show was what would happen *if there were no transportation storage whatsoever*. To examine that scenario I took Mr. Bartlett's exhibit and *completely zeroed out all transportation volumes*. The result is shown in Schedule 2 of this rebuttal testimony. The interesting thing to note here is that with no transportation storage whatsoever, the commodity cost of the PGA is also $12 million higher – *exactly the same result with no cycling whatsoever*. (Of course, we are here discussing only the hedging benefit of storage and not its value in reducing the need for pipeline capacity for low load factor customers.) In other words, transportation customers' complete failure to cycle their gas would have the same effect as having no transportation storage at all!

Thus, Mr. Bartlett's complaint cannot be with the actions of the transportation customers' storage activity (or inactivity), but only with Nicor's inability to anticipate those actions.

Q WHAT OTHER CONCLUSIONS CAN BE DRAWN FROM MR. BARTLETT'S NICOR EXHIBIT 24.2?

A There is another conclusion that can be drawn from Mr. Bartlett's Nicor Exhibit 24.2. Page 1 of that Exhibit illustrates a scenario where transportation customers follow exactly the same injection/withdrawal pattern as the physical injection/withdrawals of Nicor's reservoirs, while page 2 illustrates a scenario with no cycling whatsoever. I have produced a third scenario, which is illustrated in Schedule 3 of this rebuttal testimony. This exhibit makes just one change from Mr. Bartlett's Exhibit 24.2. Instead of using *hypothetical* transportation storage patterns, I used *actual* historic patterns from the same time period Mr. Bartlett chose to use. Schedule 3 shows that even under Mr. Bartlett's choice of time frame, with actual transportation storage banks, sales customers benefited by $23.4 million, rather than being harmed as Mr. Bartlett's contrived exhibit shows. Consequently, the evidence does not support Mr. Bartlett's contention that lack of cycling is harming sales customers.

Q PLEASE RESPOND TO MR. BARTLETT'S FINAL POINT IN HIS REBUTTAL, I.E., THAT THE MIN-MAX REQUIREMENTS ARE NECESSARY BECAUSE TRANSPORTATION STORAGE IS MAKING NICOR'S JOB HARDER.

A Mr. Bartlett was not very explicit about this point. In fact, when invited to expand upon that allegation, all Mr. Bartlett could say was:

> The storage pattern of the transportation customers often has not been consistent with the injection pattern dictated by prudent management of the storage fields and in fact has at times involved withdrawals which run counter to the need for injections. (Nicor's response to Data Request IIEC 4.29)

While I can sympathize with Mr. Bartlett's wish that Nicor's job was easier, that is not a valid point for limiting the flexibility – and hence raising the energy costs – of transportation service that is so necessary for the economic health of the region. Transportation customers have every right to react to market prices, as well as their individualized gas requirements, to the extent that they pay for the use of the storage. Transportation customers are not "second class citizens" of the system.

Moreover, the nub of Mr. Bartlett's complaint appears to be Nicor's alleged difficulty with forecasting the storage activity of the transportation customers as a group. However, there is no need for onerous parameters in order to improve Nicor's clarity. Nicor already knows the transportation nominations well in advance of the gas day. Nicor can probably forecast transportation usage as well as, if not better, than sales usage. By looking at the cash price of gas relative to future prices, Nicor should be able to anticipate marketer and transportation buying behavior. And if Nicor wishes it could simply ask their customers for good faith forecasts.

Q HAS NICOR EVER REQUESTED TRANSPORTATION CUSTOMERS TO FORECAST THEIR STORAGE BALANCES?

A No.

Q PLEASE SUMMARIZE YOUR POSITION ON THE MIN-MAX REQUIREMENT.

A Contrary to Mr. Bartlett's rebuttal testimony (Nicor Exhibit 24.0, lines 22-23), I never argued that unrestricted storage and withdrawal by transportation customers is

actually good for the sales customer. A careful reading of my testimony (IIEC/CNE Joint Exhibit 1, page 6, line 15, through page 8, line 2) will show that what I argued – and demonstrated – was that the max-min restrictions being proposed by Nicor are not necessarily helpful, and in fact may be harmful, for the sales customers. I would also note that storage usage by transportation customers is not unrestricted. There are already parameters in place that restrict injections and withdrawals by transportation customers. Furthermore these restrictions, which have been in place for a number of years, were proposed by Nicor and approved by the Commission. Recent investigations into causes for adverse PGA impacts were not focused on transportation storage parameters. They were focused on Nicor itself. Finally I would point out that ultimately the decision on whether or not a storage restriction is appropriate should not hinge on whether it is good for sales customers or bad for sales customers. Rather the decision should hinge on whether the restriction is appropriate for the service paid for or necessary for the safe and reliable operation of the system. On that basis the min/max proposal of Nicor should be rejected.

Q IF THE MIN/MAX PROPOSAL OF NICOR IS REJECTED, IS THERE ANY NEED FOR A PENALTY FOR "NON-COMPLIANCE"?

A No, there is not. Moreover, it seems to me to be counterproductive to impose further restrictions on injections and withdrawals if the ostensible goal is to encourage transportation customers to more fully utilize their storage entitlements.

SBS Capacity Allocation

Q WHAT DID NICOR PROPOSE REGARDING SBS CAPACITY LIMITATIONS?

A Nicor proposed that SBS capacity be reduced from the current 26 days of MDCQ to only 23 days of MDCQ.

Q WHAT WAS STAFF'S POSITION ON THIS ISSUE?

A Mr. Borden stated that while he does not wish to see the transportation customers' allocation of storage capacity diminished, he accepted the Company's analysis of this issue. He also stated that he was "open to recommendations from transportation customers."

Q ON WHAT WAS THE COMPANY'S DETERMINATION OF THE 23 DAY LIMIT BASED?

A It was incorrectly based on dividing 120 Bcf of cycled storage by the estimated peak day sendout.

Q WHY DO YOU BELIEVE THAT IS INCORRECT?

A The storage entitlement of the transportation customers is articulated in terms of capacity, i.e., so much *capacity* times the MDCQ, which is the transportation customers' analogue of peak day. However the 120 Bcf is not a *capacity* figure. Rather the 120 Bcf is only an expected *cycling* figure. Consequently, to treat transportation customers in a non-discriminatory manner, it is necessary to use the total *capacity* of the working gas or top gas of the storage field for the analogy (from the operational parameters of the Nicor system to the billing parameters of the SBS customer) to be consistent.

Q WHAT IS THE WORKING GAS CAPACITY OF NICOR'S AQUIFER STORAGE FIELDS?

A The capacity is 149.74 Bcf. That would equate to 28 days (1,497,400,000 therms ÷ 52,580,000 therms per day), and that would even be without taking into account diversity.

Q WHAT DO YOU MEAN BY DIVERSITY?

A Diversity means that not all transportation customers max out their storage at the same time. Thus if transportation customers as a group should have 28 days times their aggregate peak, each individual transportation customer could be allowed somewhat more than 28 days worth of storage. My recommendation, however, does not take diversity into account. Thus, 28 days is a conservative position.

Q MR. BARTLETT CLAIMS THAT 149.74 BCF IS ONLY THE SUM OF THE CAPACITY OF ALL THE FIELDS BUT THAT IT DOES NOT REFLECT THE CAPACITY OF THE SYSTEM AT A SINGLE POINT IN TIME. HE STATES THAT THE ACTUAL VALUE OF THIS "COINCIDENT PEAK" WAS ABOUT 132 BCF IN 2004. HOW DO YOU RESPOND?

A First, it should be noted that in response to discovery, Mr. Bartlett could not produce any engineering studies that purport to demonstrate that the fields could not be filled to 149.74 Bcf. He only states that it is "highly unlikely" that each individual reservoir would be filled on the same day. (Nicor's response to Data Request IIEC 4.08). Moreover it should be noted that Mr. Bartlett never even offered a figure as to what the maximum coincident demand would be. The 132 Bcf figure was for one year only.

Q DID YOU REQUEST THE MAXIMUM SINGLE DAY WORKING GAS CAPACITY IN EACH OF THE YEARS 1999 THROUGH 2003?

A Yes, in Nicor's response to Data Request IIEC 4.09.

Q WHAT DID THE RESPONSE TO THAT DATA REQUEST SHOW?

A The response showed that the average for the years 1999 through 2004 was approximately 143 Bcf and that the average for the years 1995 through 2004 (all the years shown in the response) was approximately 139.5 Bcf. Thus even if we accept Mr. Bartlett's argument for a "coincident peak", it would not be appropriate to use anything less than 140 Bcf for the numerator, which would yield a capacity entitlement of 27 times MDCQ.

Q MR. BORDEN ALSO ACCEPTED THE COMPANY PROPOSAL THAT THE CRITICAL DAY WITHDRAWAL RATE BE REDUCED FROM 2.3% TO 2.1%. HOW DO YOU RESPOND?

A I agree with Mr. Borden, but only if the storage entitlement is set at its proper level of 27 or 28 days. If the Company proposal on 23 days is accepted, I cannot agree with that restriction. Reducing both the storage entitlement and the withdrawal amount would be a double penalty.

Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A Yes.

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NORTHERN ILLINOIS GAS COMPANY
d/b/a Nicor Gas Company

Hypothetical Example of Impact of Banking Service on Cost of Sales Gas
Transportation Customers Follow Same Pattern as Physical Injections/Withdrawals

Line	Month	Cost of Gas (A)	End of Month (B)	Physical Withdrawal/ Injection (C)	Implied Sales Purchases (D)	Transportation Bank (E)	Transport Imbalance (F)	Sales Cost (G)
Assumed beginning balances			10,000			3,000		
1	May 04	$ 5.85	27,700	17,700	12,390	8,310	5,310	$ 72,482
2	Jun	$ 6.63	46,810	19,110	13,377	14,043	5,733	$ 88,690
3	Jul	$ 6.36	66,282	19,472	13,630	19,885	5,842	$ 86,689
4	Aug	$ 5.97	85,030	18,748	13,124	25,509	5,624	$ 78,348
5	Sep	$ 5.20	107,016	21,986	15,390	32,105	6,596	$ 80,029
6	Oct	$ 5.48	122,943	15,927	11,149	36,883	4,778	$ 61,096
7	Nov	$ 8.08	116,416	(6,527)	(4,569)	34,925	(1,958)	$ (36,917)
8	Dec	$ 7.29	88,765	(27,651)	(19,356)	26,630	(8,295)	$ (141,103)
9	Jan 05	$ 6.23	57,454	(31,311)	(21,918)	17,236	(9,393)	$ (136,547)
10	Feb	$ 6.34	30,502	(26,952)	(18,866)	9,151	(8,086)	$ (119,613)
11	Mar	$ 6.17	10,164	(20,338)	(14,237)	3,049	(6,101)	$ (87,840)
12	Apr	$ 7.14	5,329	(4,835)	(3,385)	1,599	(1,451)	$ (24,165)
13	Total							$ (78,852)

(A) Cost of Gas: FOM from May 2004- April 2005
(B) Equal to previous month balance plus (minus) that month injection (withdrawal)
(C) Equal to actual operation of Nicor fields per response IIEC 1-28
(D) Incremental flow gas purchases made by Nicor (Column (C) less Column (F))
(E) Assumed to be 30% of actual top gas volume every month or perfect cycling
(F) Current month transportation bank less previous month bank
(G) Cost of Sales gas (PGA) avoided by storage equal to Column (D) times Column (A)

NORTHERN ILLINOIS GAS COMPANY
d/b/a Nicor Gas Company

Hypothetical Example of Impact of Banking Service on Cost of Sales Gas
Transportation Customers Fail to Cycle any Gas Whatsoever

Line	Month	Cost of Gas (A)	End of Month (B)	Physical Withdrawal/ Injection (C)	Implied Sales Purchases (D)	Transportation Bank (E)	Transport Imbalance (F)	Sales Cost (G)
Assumed beginning balances			10,000			36,000		
1	May 04	$ 5.85	27,700	17,700	17,700	36,000	-	$ 103,545
2	Jun	$ 6.63	46,810	19,110	19,110	36,000	-	$ 126,699
3	Jul	$ 6.36	66,282	19,472	19,472	36,000	-	$ 123,842
4	Aug	$ 5.97	85,030	18,748	18,748	36,000	-	$ 111,926
5	Sep	$ 5.20	107,016	21,986	21,986	36,000	-	$ 114,327
6	Oct	$ 5.48	122,943	15,927	15,927	36,000	-	$ 87,280
7	Nov	$ 8.08	116,416	(6,527)	(6,527)	36,000	-	$ (52,738)
8	Dec	$ 7.29	88,765	(27,651)	(27,651)	36,000	-	$ (201,576)
9	Jan 05	$ 6.23	57,454	(31,311)	(31,311)	36,000	-	$ (195,068)
10	Feb	$ 6.34	30,502	(26,952)	(26,952)	36,000	-	$ (170,876)
11	Mar	$ 6.17	10,164	(20,338)	(20,338)	36,000	-	$ (125,485)
12	Apr	$ 7.14	5,329	(4,835)	(4,835)	36,000	-	$ (34,522)
13	Total							$ (112,646)

(A) Cost of Gas: FOM from May 2004- April 2005
(B) Equal to previous month balance plus (minus) that month injection (withdrawal)
(C) Equal to actual operation of Nicor fields per response IIEC 1-28
(D) Incremental flow gas purchases made by Nicor (Column (C) less Column (F))
(E) Assumed to be constant
(F) Current month transportation bank less previous month bank
(G) Cost of Sales gas (PGA) avoided by storage equal to Column (D) times Column (A)

NORTHERN ILLINOIS GAS COMPANY
d/b/a Nicor Gas Company

Hypothetical Example of Impact of Banking Service on Cost of Sales Gas
Transportation Customers Follow Same Pattern as Physical Injections/Withdrawals

Line	Month	Cost of Gas (A)	End of Month (B)	Physical Withdrawal/ Injection (C)	Implied Sales Purchases (D)	Transportation Bank (E)	Transport Imbalance (F)	Sales Cost (G)
Assumed beginning balances			120,000			-		
1	Nov 03	$ 4.67	113,473	(6,527)	(6,527)	-	-	$ (30,481)
2	Dec	$ 4.93	85,822	(27,651)	(27,651)	-	-	$(136,319)
3	Jan 04	$ 6.31	54,511	(31,311)	(31,311)	-	-	$(197,572)
4	Feb	$ 5.93	27,559	(26,952)	(26,952)	-	-	$(159,825)
5	Mar	$ 5.17	7,221	(20,338)	(20,338)	-	-	$(105,147)
6	Apr	$ 5.41	2,386	(4,835)	(4,835)	-	-	$ (26,157)
7	May	$ 5.85	20,086	17,700	17,700	-	-	$ 103,545
8	Jun	$ 6.63	39,196	19,110	19,110	-	-	$ 126,699
9	Jul	$ 6.36	58,668	19,472	19,472	-	-	$ 123,842
10	Aug	$ 5.97	77,416	18,748	18,748	-	-	$ 111,926
11	Sep	$ 5.20	99,402	21,986	21,986	-	-	$ 114,327
12	Oct	$ 5.48	115,329	15,927	15,927	-	-	$ 87,280
13	Total							$ 12,116

(A) Cost of Gas: FOM from November 2003-October 2004
(B) Equal to previous month balance plus (minus) that month injection (withdrawal)
(C) Equal to actual operation of Nicor fields per response IIEC 1-28
(D) Incremental flow gas purchases made by Nicor (Column (C) less Column (F))
(E) Assumed to be constant
(F) Current month transportation bank less previous month bank
(G) Cost of Sales gas (PGA) avoided by storage equal to Column (D) times Column (A)

NORTHERN ILLINOIS GAS COMPANY
d/b/a Nicor Gas Company

Hypothetical Example of Impact of Banking Service on Cost of Sales Gas
Transportation Customers Follow Same Pattern as Physical Injections/Withdrawals

Line	Month	Cost of Gas (A)	End of Month (B)	Physical Withdrawal/ Injection (C)	Implied Sales Purchases (D)	Transportation Bank (E)	Transport Imbalance (F)	Sales Cost (G)
Assumed beginning balances			120,000			21,808		
1	Nov 03	$ 4.67	113,473	(6,527)	(9,289)	24,570	2,762	$ (43,378)
2	Dec	$ 4.93	85,822	(27,651)	(26,440)	23,359	(1,211)	$(130,348)
3	Jan 04	$ 6.31	54,511	(31,311)	(25,615)	17,663	(5,696)	$(161,632)
4	Feb	$ 5.93	27,559	(26,952)	(21,796)	12,507	(5,156)	$(129,251)
5	Mar	$ 5.17	7,221	(20,338)	(21,082)	13,251	744	$(108,992)
6	Apr	$ 5.41	2,386	(4,835)	(6,047)	14,463	1,212	$ (32,716)
7	May	$ 5.85	20,086	17,700	16,640	15,523	1,060	$ 97,346
8	Jun	$ 6.63	39,196	19,110	15,402	19,230	3,708	$ 102,118
9	Jul	$ 6.36	58,668	19,472	16,049	22,654	3,423	$ 102,070
10	Aug	$ 5.97	77,416	18,748	17,462	23,939	1,286	$ 104,250
11	Sep	$ 5.20	99,402	21,986	20,783	25,143	1,203	$ 108,069
12	Oct	$ 5.48	115,329	15,927	12,602	28,468	3,325	$ 69,057
13	Total							$ (23,409)

(A) Cost of Gas: FOM from November 2003-October 2004
(B) Equal to previous month balance plus (minus) that month injection (withdrawal)
(C) Equal to actual operation of Nicor fields per response IIEC 1-28
(D) Incremental flow gas purchases made by Nicor (Column (C) less Column (F))
(E) Actual end of month storage balance per response IIEC 4.27, Exhibit 1
(F) Current month transportation bank less previous month bank
(G) Cost of Sales gas (PGA) avoided by storage equal to Column (D) times Column (A)