IIEC/CNE Joint Exhibit 1

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	**)**	

Direct Testimony and Schedules of

Dr. Alan Rosenberg

On Behalf of

Illinois Industrial Energy Consumers and
Constellation NewEnergy – Gas Division

March 1, 2005
Project 8319

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

STATE OF ILLINOIS

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Direct 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 PLEASE STATE YOUR OCCUPATION.

A I am a consultant in the field of public utility regulation with Brubaker & Associates, Inc. (BAI), energy, economic and regulatory consultants.

Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A This is summarized in Appendix A to my testimony.

Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A I am appearing on behalf of the Illinois Industrial Energy Consumers (IIEC) and Constellation NewEnergy – Gas Division (CNE). The members of IIEC are large industrial customers who transport natural gas on the Nicor Gas (Nicor or Company) system. CNE is a natural gas marketer that supplies natural gas and related

transportation services to large commercial and industrial customers, municipalities, local distribution companies and cogeneration facilities in 35 states, Canada and Mexico.

Q WHAT IS THE SUBJECT MATTER OF YOUR TESTIMONY?

A My testimony covers the following subject areas:

- A response to the Company proposal on mandatory "cycling" of transportation customers' storage gas inventory.
- A response to the Company proposal to limit injections and withdrawals from storage by transportation customers.
- A correction to the Company's calculation of the Storage Banking Service "SBS" capacity entitlement.

Q WHAT ARE YOUR GENERAL OBSERVATIONS ABOUT NICOR'S FILING FROM THE PERSPECTIVE OF TRANSPORTATION RATE DESIGN AND TARIFFS?

A Nicor has proposed unnecessary and unreasonable restrictions on the use of its storage fields. If Nicor's proposals are adopted, it will make managing gas unnecessarily more difficult and expensive for its transportation customers. This could exacerbate the already steep slide in industrial load Nicor has experienced since its last rate case and could quite possibly accelerate the need for another rate case in the future.

Q PLEASE SUMMARIZE YOUR FINDINGS AND CONCLUSIONS.

A My findings and conclusions are as follows:

1. The Company proposal for maximum and minimum transportation storage banks is not necessary for Nicor to properly operate its aquifer storage fields. Moreover, the requirement is likely to make gas <u>more</u> costly for sales customers, as well as transportation customers.

2. The SIF and SWF "factors" are unnecessary and unreasonable. Likewise, the nomination level of two times MDQ should be retained.

3. The SBS allowance should be increased from 26 days to a minimum of 28.5 days.

Response to the Company Proposal on Mandatory "Cycling" of Transportation Customers' Storage Gas Inventory

Q IS THE COMPANY PROPOSING ANY NEW CONDITIONS ON THE CUSTOMER'S USE OF THE UNBUNDLED STORAGE SERVICE?

A Yes. The Company is proposing that the customer must fill its banked gas to at least 90% of its elected SBS capacity by November 1 of each year, and that the customer must also empty its banked gas to no more than 10 percent of its elected capacity by April 1 of each year.

Q DOES NICOR PRESENT ANY SUPPORT FOR THIS REQUIREMENT IN ITS FILING?

A This proposal is supported by Nicor witness Gary Bartlett. Mr. Bartlett's argument for these restrictions can be fairly summarized as follows:

1. Because of operational considerations, Nicor must periodically fill and empty (cycle) its working gas inventory (storage) levels.

2. It normally aims to maximize its working gas inventory on November 1 and minimize its inventory on April 1.

3. Transportation customers will tend to over-inject at the same time as injections should optimally be occurring for sales customers (presumably spring and summer). The same principle applies to withdrawals.

4. Historically, end use customers have under-injected during the spring and summer and under-withdrawn during the winter.

5. Unless transportation customers are required to cycle their banked gas on the same schedule and to the same extent as Nicor plans to operate the field on a physical basis, the result could be "a shift of costs to sales customers."

Q DO YOU AGREE WITH MR. BARTLETT'S ARGUMENT?

A No. Although I concede his points #1 and #2, the balance of his logic is unsupported, implausible, and faulty. In fact, his points #3 and #4 contradict each other. Furthermore, as I will subsequently demonstrate, the failure of transportation customers to cycle their banked gas on the same schedule as the sales customer is more likely to benefit sales customers than to harm them or shift costs to them. Finally, I would note that nowhere does Mr. Bartlett assert that his proposal is required in order for Nicor to operate its storage fields in the optimal manner.

Q DO THE HUB SERVICE CUSTOMERS HAVE TO ABIDE BY THIS CYCLING REQUIREMENT?

A I could find no such requirement in the Hub Service tariff.

Q DO YOU AGREE WITH NICOR'S PROPOSED CYCLING REQUIREMENT?

A No. In the first place, this requirement would place unnecessary restrictions on how a transportation customer seeks to manage its own gas purchasing strategy.

In the second place, Nicor itself has not followed its own strictures. For example, on November 1, 2004 the Company had only 131.96 Bcf of top gas or 88% of its total capacity of 149.7 Bcf. And on March 31 of 2000, it had 50.4 Bcf of top gas or over 34% of its maximum capacity. (Data is from the Company response to Data Request CNE 2.16.)

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.

Q NEVERTHELESS WOULD YOU AGREE THAT NICOR'S PRACTICE AIMS TO MAXIMIZE ITS WORKING GAS INVENTORY ON NOVEMBER 1 AND MINIMIZE THIS INVENTORY BY THE FOLLOWING APRIL 1?

A Yes. However, it does so for the convenience of its sales customers whose usage is much more weather sensitive than that of the transportation customers as a whole. In any case, the usage pattern of one group should not dictate the storage profiles of all other groups. All customers who are utilizing storage are paying their fair share of the storage costs and should be allowed to optimize that usage for their own circumstances.

Q IF NICOR'S MAXIMUM AND MINIMUM BANKING REQUIREMENTS FOR TRANSPORTATION CUSTOMERS ARE REJECTED, AS YOU RECOMMEND, WOULD THAT IN ANY WAY PREVENT OR JEOPARDIZE NICOR'S ABILITY TO OPERATE ITS STORAGE FIELDS AS IT SEES FIT?

A Obviously not. There have been no such restrictions on transportation customer banks for the past ten years, and Nicor has managed to fill its fields by the beginning of winter and empty them (as much as it wanted to) by the end of March.

Q HOW DOES NICOR MANAGE TO DO THAT IF THE TRANSPORTATION CUSTOMERS ARE NOT FOLLOWING THAT SAME SCHEDULE OF INJECTIONS AND WITHDRAWALS?

A It does that by adjusting its own purchase patterns in response to transportation usage and transportation nominations (and to the usage patterns of sales customers, of course) in order to achieve the level of injections and withdrawals that it finds appropriate.

Q DOES THIS MEAN THAT NOT IMPOSING RESTRICTIONS ON THE BANKING LEVELS OF THE TRANSPORTATION CUSTOMERS USING SBS COULD SHIFT MORE PURCHASE GAS COSTS TO THE SALES CUSTOMERS?

A No, it does not mean that at all. In fact, just the opposite is more likely to be true. I have prepared **Schedule 1**, which illustrates how Nicor would operate its storage fields as it has historically. In this scenario, I have also assumed that the transportation customers manage their banks to mimic those of the whole field. Note that in each and every month the ratio of the banked gas to the entire volume of working gas is the same each and every month. This is how Nicor states it wants

transportation customers to manage their storage banks. I have also included hypothetical costs of purchased gas each month, assuming higher prices of gas in the winter, as is normally the case. The last column shows that because of storage, i.e. injecting gas when it is relatively inexpensive and withdrawing it in the months when it is more expensive, Nicor would have saved approximately $99 million during the year.

In **Schedule 2** I have prepared a similar type of storage analysis as in **Schedule 1**, with just one difference. In **Schedule 2**, instead of the transportation customers cycling their gas on exactly the same pattern as the field, I have held the transportation bank constant for the entire year. This of course is the exact opposite of the storage behavior that Nicor is seeking to impose. In every other respect, **Schedule 2** is the same as **Schedule 1**, including the physical volumes of gas going in and out of the field. Nicor, however, must change its purchasing pattern in this second scenario in order to keep the working gas volumes at the same levels as in **Schedule 1**.

Q HOW MUCH WOULD NICOR HAVE SAVED ON PURCHASED GAS EXPENSE IN SCHEDULE 2 AS A RESULT OF STORAGE?

A As shown, Nicor would save approximately $141 million as a result of storage for its PGA customers, or **over 40% more than in the scenario where the transportation customers are assumed to cycle their gas in the same manner as the physical injections and withdrawals.** Of course, the actual results could vary somewhat with differing assumptions about gas costs. *Nevertheless, a comparison of **Schedules 1 and 2** vividly demonstrates that it is not only conceivable, but even plausible, that Nicor's mandatory cycling could actually cost the PGA customers money*. (It would

not cost Nicor any money because all purchased gas costs are normally recovered dollar for dollar through the PGA).

Q WHAT IS YOUR RECOMMENDATION WITH REGARD TO MAXIMUM AND MINIMUM BANKED LEVELS OF GAS?

A I recommend that there be no requirements on minimum or maximum banked gas levels for transportation customers. This would be the status quo to the way the tariffs read today. Clearly the current terms and conditions, as is evidenced by history, and admitted by Nicor witnesses, does not in any way prevent or deter Nicor from physically cycling its storage fields as it sees fit. Moreover, as I have already demonstrated, any possible "under-injecting" or "under-withdrawing" by transportation customers, is more likely to *lower* the costs of the PGA customers than to raise it (as long as gas remains more expensive in the winter than in the remaining months).

Q WOULD YOUR RECOMMENDATION, TO REJECT NICOR'S PROPOSAL FOR MANDATED MAXIMUM AND MINIMUM BANKED GAS LEVELS, IMPLY MODIFICATION TO ANY OTHER SECTION OF NICOR'S TARIFF GOVERNING THE TRANSPORTATION CUSTOMER'S USE OF STORAGE?

A Yes. Mr. Bartlett is proposing to limit the transportation customer's Critical Day and OFO Shortage Day withdrawal capability if it fails to meet the November 1 (90%) level and daily injection rights from June through October if it fails to meet the April 1 (10%) level. Nicor does this by introducing two new "factors" in its tariff, a Storage Withdrawal Factor (SWF) and a Storage Injection Factor (SIF). If a customer fails to reach the proposed mandatory 90% level on November 1, or the mandatory 10% level on April 1, these factors reduce the customer's ability to withdraw or inject gas,

respectively. If the artificial November 1 and April 1 levels are rejected as inappropriate, then clearly these "factors" are unnecessary and unwarranted as well. Furthermore, it seems rather topsy-turvy to limit withdrawal rights on cold days and injection rights on summer days when Nicor seems to be complaining about transportation customers "under-withdrawing" during the winter and "under-injecting" during the spring and summer. Customers who pay for SBS should have the ability to fully utilize those banking rights commensurate with the cycling rights that they pay for.

Q HAS NICOR PROPOSED ANY OTHER CHANGES TO THE TERMS AND CONDITIONS THAT SHOULD BE REJECTED?

A Yes. Currently, from November 1 through March 31, customer nominations may not exceed two times the customer's MDCQ. The Company is proposing to limit the nomination to just the MDCQ. Not only could this prevent the customer from building inventory during this critical period, the proposal could actually harm the sales customers. Because gas prices are generally higher during this period (November 1 to March 31) than at other times, high nominations could serve to displace more costly purchases by Nicor and should be enabled, if not actually encouraged.

A Correction to the Company's Calculation of the SBS Capacity Entitlement

Q WHAT IS THE SBS CAPACITY ENTITLEMENT UNDER THE PRESENT TARIFFS?

A Currently, and for the last ten years, transportation customers are entitled to nominate up to 26 times their MDCQ in SBS. (If the SBS capacity is not fully nominated by June 1, customers may elect to buy some of that unused capacity.)

Q WHAT IS THE COMPANY PROPOSAL IN THIS CASE?

A Mr. Bartlett is proposing to reduce the entitlement to 23 days, or 23 times the customer's MDCQ.

Q HOW DOES MR. BARTLETT DERIVE HIS PROPOSED 23 DAYS OF STORAGE CAPACITY?

A As shown on Nicor Gas Exhibit 8.1, he derives that figure by dividing the 120 Bcf of gas that Nicor intends to cycle for the year by the estimated peak day sendout for the entire Company of 5.258 Bcf.

Q DO YOU AGREE WITH HIS CALCULATION?

A I agree with his arithmetic, but not his calculation. As I explained in deriving the SBS charge, the total top gas capacity, supported by Mr. Bartlett himself, is 149.74 Bcf. Clearly it is that amount that should determine the amount of storage capacity to which the transportation customers are entitled. Simply because Nicor does not choose to cycle the full amount in 2005, should not be used as an excuse to diminish the storage entitlement for transportation customers. I also find the proposal to reduce the storage entitlement especially inappropriate in light of Mr. Bartlett's explanation of how the Company has undertaken certain storage projects to enhance the capability of its storage fields.

Q WITH THAT CORRECTION, WHAT IS THE APPROPRIATE AMOUNT OF STORAGE ENTITLEMENT?

A I calculate that the appropriate storage entitlement is 28.5 days, or 28.5 times the customer's MDCQ. I derive that figure by dividing Nicor's top storage capacity of

149.74 Bcf by the design day peak of 5.258 Bcf. Moreover, I would consider this to be a minimum amount because it assumes the unlikely happenstance that all transportation customers maximize their storage banks simultaneously.

Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A Yes.

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Qualifications 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 WHAT IS YOUR OCCUPATION?

A I am a consultant in the field of public utility regulation with Brubaker & Associates, Inc. (BAI), energy, economic and regulatory consultants.

Q PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A I was awarded a Bachelor of Science Degree from the City College of New York in 1964 and a Doctorate of Philosophy in Mathematics from Brown University in 1969. Subsequently, I held an Assistant Professorship of Mathematics at Wesleyan University in Connecticut. In the summer of 1975, I was a Visiting Fellow at Yale University. From July, 1975 through January, 1981, I was Assistant Controller and Project Manager for a division of National Steel Products Company. My responsibilities there included supervision of management accounting, cost accounting and data processing functions. I was also responsible for internal control, general ledger systems, working capital levels, budget preparation, cash flow forecasts and capital expenditure analysis.

I have published in major academic journals and am a member of the International Association for Energy Economics. I was an invited speaker at the NARUC Introductory Regulatory Training Program and a panelist at a conference on LDC and Pipeline Ratemaking sponsored by the Institute of Gas Technology. I have

presented a paper on stranded costs at the 21st Annual International Conference of the International Association for Energy Economics. I have had two papers on transmission congestion pricing published in The Electricity Journal. I am also a Certified Energy Procurement Professional by the Association of Energy Engineers.

In January, 1982, I joined the firm of Drazen-Brubaker & Associates, Inc., the predecessor of Brubaker & Associates. Since that time, I have presented expert testimony on the subjects of industry restructuring, open access transmission, marginal and embedded class cost of service studies, prudence and used and useful issues, electric and gas rate design, revenue requirements, natural gas transportation issues, demand-side management, and forecasting.

I have previously testified before the Federal Energy Regulatory Commission as well as the public service commissions of Arizona, Connecticut, Delaware, Florida, Idaho, Illinois, Iowa, Massachusetts, Michigan, Montana, New Jersey, New Mexico, New York, Ohio, Pennsylvania, Rhode Island, Vermont, Virginia, Wyoming and the Provinces of Alberta, British Columbia, Nova Scotia, and Saskatchewan in Canada.

In addition to our main office in St. Louis, the firm also has branch offices in Phoenix, Arizona; Chicago, Illinois; Corpus Christi, Texas; and Plano, Texas.