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NE HUB PARTNERS, L.P.

OFFICE OF THE SECRETARY

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FEBERAL ENERGY REGULATORY COMMISSION Two Riverbend at Lansdowne 44084 Riverside Parkway, Suite 340 Leesburg, VA 20176-5102 Phone: (703) 729-1647 Fax: (703) 729-1138

February 3, 1997

Lois D. Cashell Secretary Federal Energy Regulatory Commission 888 First Street, N.E. Washington, D.C. 20426

RE: NE Hub Partners, L.P., Docket No. CP96-53-000

Dear Ms. Cashell:

Enclosed for filing with the Commission please find an original and seven copies of the response of NE Hub Partners, L.P. to Commission data requests dated October 21—1996. NE Hub apologizes for the delay in providing these responses. After the Commission issued its order in Egan Hub Partners, L.P., 77 FERC ¶ 61,016 (1996), NE Hub determined that both its originally filed rate proposal and its response to the Staff data request required careful analysis in light of the Egan order and NE Hub's view of the commercial opportunities that now exist for the Tioga facility. Egan addressed in detail the requirements an applicant would be required to fulfill in order to obtain market based rates for hub services. As a result of this review, NE Hub has determined that it will not offer hub services at the Tioga facility but will offer only firm and interruptible storage services.

NE Hub also determined that it should reassess its earlier submissions to determine whether they adequately support NE Hub's request for market based rates for storage services in light of possible changes in market conditions. For that purpose, NE Hub engaged another consultant to review its earlier submissions and, also, to assess whether there have been any changes in the relevant geographic and product markets since NE Hub submitted its earlier market analysis in November of 1995. NE Hub has attached that latest analysis to its responses. NE Hub believes that the delay related to securing the attached market analysis will benefit the Staff, NE Hub and all parties since the analysis now tracks the Commission's latest pronouncements regarding how market power should be assessed.

Finally, as noted in the data responses, NE Hub is preparing an

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Lois D. Cashell February 3, 1997 Page 2

amendment to its application to reflect the changes to its application that are discussed herein. As stated in those responses, NE Hub will file those changes within 10 days.

Respectfully submitted,

NE Hub Partners, L.P.

Andrea R. Johlhand

Andrea R. Hilliard

cc:

Kevin P. Madden Alice M. Fernandez Robert R. Sheldon

All Parties

# RESPONSE OF NE HUB PARTNERS, L.P. THE TO COMMISSION DATA REQUESTS -3 FILLION OF THE TOTAL PROPERTY OF THE PARTNERS AND THE PA

#### Question (1):

Please provide a detailed description of what market based rate services you now intend to provide.

A. NE Hub proposes to provide only firm and interruptible storage services. As discussed herein, NE Hub has determined not to offer hub services and, therefore, will not seek authorization for market-based rates for such hub services.

In its November 7, 1995 application in this proceeding, NE Hub requested that it be granted authorization to offer firm and interruptible storage services and, also, interruptible hub services. Further, NE Hub requested that it be authorized to charge market-based rates for all of the services it proposed to offer. A description of the proposed hub services (as well as the proposed firm and interruptible storage services) was set forth in NE Hub's certificate application and in the Prepared Statement of Patrick J. Peldner, which was attached as an exhibit to the certificate application. Also attached as an exhibit was the Prepared Statement of Dr. George R. Hall, who addressed the reasons that NE Hub should be authorized to charge market-based rates for the proposed services, including hub services.

Since the November 7, 1995 certificate application, NE Hub's commercial objectives for the market to be served by the Tioga storage facility have changed. As a consequence, NE Hub no longer plans to offer hub services or to seek market based rates for those services. With respect to the firm and interruptible storage services it proposes to offer, NE Hub reviewed the Commission's Policy Statement<sup>1</sup> and concluded that, together with the issuance of Commission orders regarding market-based rates for storage services, an updated market power analysis should be conducted. That analysis was conducted by Bruce M. Sloan, a Senior Consultant at Micronomics, Inc., an economic research and consulting firm. That analysis is attached hereto and incorporated by reference.

Prepared By:	Andrea R. Hilliard	
Position:	Director of Regulatory Affairs	
Telephone:	(703) 589-1740	

<sup>&</sup>lt;sup>1</sup> Statement of Policy and Request for Comments – Alternatives to Traditional Cost-of-Service Ratemaking for Natural Gas Pipelines and Regulation of Negotiated Transportation Services of Natural Gas Pipelines, 74 FERC ¶ 61,076 (1996).

#### Question (2):

Please explain if you are proposing stand alone firm, secondary, and interruptible transportation service? If so, please provide the origin and destination market, the transportation route, and receipt and delivery points.

A. NE Hub is not proposing stand alone firm, secondary, or interruptible **transportation** services. The only services to be offered by NE Hub will be firm and interruptible **storage** services. NE Hub has requested certificate authorization to construct and operate certain pipeline facilities, which are described in NE Hub's certificate application and, also, are further discussed in NE Hub's response to Question No. 5. Those pipeline facilities will be used solely to deliver gas either from interconnects to the proposed storage facilities for storage or to redeliver gas from the storage facilities back to the pipelines interconnected to NE Hub's pipeline facilities. Accordingly, the receipt and delivery points for gas to be stored by NE Hub will be at the interconnection of its pipeline facilities with those of third-party pipelines.

Prepared By:	Andrea R. Hilliard
Position:	Director of Regulatory Affairs
Telephone:	(703) 589-1740

#### Question (3):

Please explain if the proposed storage service is bundled service or if any other services under this application will be bundled.

A. NE Hub's firm and interruptible storage services will be bundled only with respect to the incidental transportation of gas through its pipeline facilities to and from interconnects with third-party pipelines for either the injection of gas into or the withdrawal of gas from the storage facilities. NE Hub will not offer "bundled" services as that term was defined in Egan Hub Partners, L.P., 77 FERC ¶ 61,016 at 61,058 (1996), inasmuch as NE Hub does not now propose to offer hub services.

Prepared By:	Andrea R. Hilliard
Position:	Director of Regulatory Affairs
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#### Question (4):

To obtain market based rates for transportation and hub service you must provide specific market based data in addition to the information you have already provided. Please provide the following market based data for transportation and hub service:

- (a) identify the origin and destination market for the transportation and hub services:
- (b) provide workpapers demonstrating the Herfindahl-Hirschman Index specifically for the proposed transportation and hub market based services;
- (c) explain and provide evidence to demonstrate that if NE Hub raised its transportation and hub rates 10 percent above the market level, NE Hub would not be able to retain market power;
- (d) provide evidence of alternative paths for the transportation and hub services and provide the location of the alternative paths and hubs. Such information should include, available capacity at each of the alternative paths, rates, rated capacity, etc. If firm transportation service is proposed, available capacity should be defined as peak day capacity;
- (e) explain and provide data to support why each of the alternative interconnects is a good alternative to NE Hub and that it provides a path between a shipper's desired origin and destination market;
- (f) provide the transportation charge for the alternative paths and why the rate for that service is competitive and provides a shipper with a good alternative to NE Hub:
- (g) provide a "bingo card" depicting the various interconnects and capacity on those interconnects to NE Hub; 1/ and
- (h) describe the services that each of the alternative hubs provide, i.e., wheeling, parking, balancing, etc.
- 1/ A "bingo card" was initially requested in question F #15 in the February 16, 1996, data request. NE Hub did not include the "bingo card" in its March 16, 1996 data response.
- A. As stated in response to Questions (1) (2) and (3) above, NE Hub does not now propose to offer either transportation or hub services.

Prepared By:	Andrea R. Hilliard	
Position:	Director of Regulatory Affairs	
Telephone:	(703) 589-1740	

#### **Question (5):**

If market based rate data is not available, provide cost based data to support your proposed transportation and hub services. Include cost data for all the facilities associated with NE Hub's project, including the brining facilities and associated facilities developed to store compressed air and petroleum products.

A. The market-based rate data for firm and interruptible storage services are presented in the Prepared Statement of Dr. George R. Hall, which was attached as an exhibit to NE Hub's

November 7, 1995 certificate application in this proceeding. Moreover, as stated above, NE Hub is attaching to these responses additional data to support its request for market-based rates for firm and interruptible storage services. Accordingly, NE Hub is not providing cost-based information, because it is seeking market-based rates for its proposed services.

Prepared By:	Andrea R. Hilliard
Position:	Director of Regulatory Affairs
Telephone:	(703) 589-1740

#### Question (6):

Does NE Hub intend to revise its filing to request cost based rates or substantially modify the market based rate proposal? If so, provide an amendment to the filing together with revised pro-forma tariff sheets to reflect the changes to the application.

A. NE Hub intends to request authorization to provide only firm and interruptible storage services at market-based rates. An amendment to NE Hub's November 7, 1995 certificate application, as well as revised pro-forma tariff sheets is being prepared and will be filed with the Commission within 10 days.

Prepared By:	Andrea R. Hilliard
Position:	Director of Regulatory Affairs
Telephone:	(703) 589-1740

#### Question (7):

NE Hub estimates that it could build at the Tioga site, 10 natural gas storage caverns with 20-30 Bcf of working gas capacity and peak day deliverability of 2-3 Bcf per day. Provide a time line for the anticipated construction of each of the 10 caverns and the respective working gas capacity and peak day deliverability for each of those caverns.

A. NE Hub does not have a time line for construction of additional salt storage caverns (caverns 3 - 10) or the working gas capacity or peak day deliverability for those caverns. Consistent with NE Hub's Motion for Phased Consideration of Application for Issuance of Certificate of Public Convenience and Necessity or, in the Alternative, Amendment to Certificate Application, filed on October 1, 1997, NE Hub's pending certificate application only seeks authority to construct and operate two gas storage caverns. As demand for additional gas storage capacity develops, NE Hub will file for authorization to construct and operate such storage caverns. Depending upon when the Commission grants NE Hub permission to proceed with construction of the two caverns, it would take approximately 24 months to develop the first cavern for gas service.

Prepared By:	Andrea R. Hilliard
Position:	Director of Regulatory Affairs
Telephone:	(703) 589-1740

#### **Question (8):**

What progress has NE Hub made on arranging the interconnections with Tennessee, CNG, and North Penn? Are there any tie-in agreements and what is the cost for each interconnection? Please provide copies of any executed tie-in agreements.

A. At this time, NE Hub does not have executed tie-in agreements with Tennessee, CNG or North Penn. With respect to CNG, NE Hub has solicited a proposal for an interconnect but has not negotiated an agreement as yet. Discussions with CNG are ongoing. Communications are ongoing with North Penn. An interconnect proposal is being prepared for Tennessee.

Prepared By:	David R. Hooker	
Position:	Vice President, Operations	
Telephone:	(703) 589-1740	

#### **VERIFICATION**

Pursuant to 18 C.F.R. Section 385.2005(b)(2), Donald B. Russell, being duly sworn, deposes and says that he is President of NE Hub Partners, L.P., that he possesses full power and authority to execute this filing on behalf of NE Hub Partners, L.P., that he has read the foregoing response to Commission Staff data requests, that he knows the contents thereof, and that the same are true to the best of his knowledge and belief.

Donald B. Russell

Subscribed and sworn to before me this 3rd day of February, 1997.

Notary Public

Sinda Hordick

Exhibit No.	(BMS-1)
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### UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

NE Hub Partners, L.P.

Docket No. CP96-53-000

PREPARED STATEMENT
OF
BRUCE M. SLOAN

)

On Behalf of:

NE Hub Partners, L.P.

## UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

NE Hub Partners, L.P.	) Docket No. CP96-53-000
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#### PREPARED STATEMENT

#### OF

#### BRUCE M. SLOAN

1	I.	INTRODUCTION
2		
3	Q.	Please state your name and occupation.
4	A.	My name is Bruce M. Sloan. I am a Senior Consultant at Micronomics, Inc.
5		Micronomics, Inc. Is an economic research and consulting firm with offices
6		in Los Angeles, CA, Sacramento, CA, and Washington, D.C.
7		
8	Q.	What is your business address.
9	A.	My business address is 1201 New York Avenue, N.W., Washington, D.C. 20005.
10		
11	Q.	Please describe your educational and professional background.
12	A.	I received my bachelor's degree with honors in economics from Connecticut
13		College in 1973 and my masters in Business Administration from George

Mason University in May 1995. Since 1973, I have worked for the economic consulting firms of National Economic Research Associates, Inc. ("NERA"), Putnam, Hayes and Bartlett, Inc. ("PHB"), and Law & Economic Consulting Group, Inc. ("LECG"). I joined Micronomics, Inc. in December 1995.

During my consulting career, I have directed projects involving a broad range of economic issues in the natural gas, electric utility and telecommunications industries, as well as in other unregulated industries as diverse as aerospace equipment and automobiles.

Throughout my professional career, I have been particularly heavily involved in issues relating to the application of antitrust principles to the electric utility industry.

My professional background and experience are described more fully in Exhibit No. \_\_\_ (BMS-2), attached to my prepared statement.

Q. What is the purpose of your statement?

A. NE Hub Partners, L.P. ("NE Hub") previously filed, as a part of its November 7, 1995 certificate application in Docket No. CP96-53-000, a request to charge and collect market-based rates for both storage and hub services to be provided at its proposed natural gas storage facility in Tioga County, Pennsylvania. NE Hub has determined to modify its request and, at this time, forego offering hub services. Instead, NE Hub will offer only firm and

interruptible storage services. Additionally, since NE Hub filed its application in Docket No. CP96-53-000, the Commission has issued further orders which clarify the matters on which it will focus in determining whether an applicant should be granted authority to charge and collect market-based rates. Given these circumstances, and to account for possible changes that may have occurred in gas storage markets in the area, NE Hub requested that I update its previously-submitted analysis regarding market power for storage services to be provided by NE Hub at its proposed natural gas storage facility.

- Q. Please summarize your conclusions.
- A. Based on the results of my updated market power analyses for storage services, I concluded that, as demonstrated in its previous analyses submitted in this proceeding, NE Hub does not possess market power over storage services. Therefore, the Commission should allow NE Hub to charge market-based rates for storage services.

NE Hub is a small, new entrant. NE Hub will not be able to exercise market power because it is small, relative to available alternatives. Although the storage services market in Pennsylvania and New York is very concentrated -- with a HHI for capacity at 3,659 and a HHI for peak day deliverability at 3,533 -- I conclude that NE Hub cannot exercise market power because it must attract customers to this new storage facility by offering

competitive prices. Potential customers at NE Hub have many options at the 92 other storage facilities located in Pennsylvania and New York. NE Hub cannot raise prices above competitive levels and sustain these prices because potential customers can use storage facilities within Pennsylvania and New York that have storage services based on cost-of-service rates. Therefore, I conclude that the Commission should allow NE Hub to charge market rates for storage services at the Tioga facility.

Finally, the HHIs developed for this analysis are consistent with HHIs presented by other applicants for storage services in the same geographic area. Specifically, the Commission has approved market-based rates for storage services in Avoca Natural Gas Storage, 68 FERC ¶ 61,046 (1994) (hereinafter "Avoca") and Steuben Gas Storage Company, 72 FERC ¶ 61,102 (1995) (hereinafter "Steuben"). It is therefore reasonable that NE Hub also be authorized to charge market-based rates.

- Q. Please outline your statement.
- A. The Statement contains a discussion of the Commission's requirements that Applicants must satisfy to receive authority to implement market-based rates (Section II). Section III contains the market power analysis for the storage services to be provided by NE Hub. Finally, Section IV presents the conclusions based on the results of the market power analysis.

#### II. REQUIREMENTS FOR MARKET-BASED RATE AUTHORITY

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- Q. Has the Commission provided further guidance regarding market-based rates
   since NE Hub submitted its market power analysis in November of 1995.
- Yes. In 1996 the Commission issued its "Statement of Policy and Request for 4 Α. Comments - Alternatives to Traditional Cost-of-Service Ratemaking for Natural 5 Gas Pipelines and Regulation of Negotiated Transportation Services of 6 Natural Gas Pipelines," 74 FERC ¶ 61,076 (1996) (hereinafter "Policy 7 Statement"). Also, the Commission has issued several orders regarding 8 9 market-based rates for storage services. Among these cases, which I believe 10 provide further guidance, are Ouachita Gas Storage Company, L.L.C. 76 FERC ¶ 61,139 (1996), Equitable Storage Company, 75 FERC ¶ 61,081 (1996) and 11 Egan Hub Partners, L.P. 77 FERC ¶ 61,061 (1996). Together with orders in 12 Avoca and Steuben, which both involve market-based rates for market area 13 storage. I believe that the Commission has established clear guidelines 14 15 regarding the factors that an applicant must demonstrate to receive approval 16 of market-based rates. As discussed herein, my review of the above 17 pronouncements confirm NE Hub's previously-submitted analyses that NE 18 Hub will not be able to exercise market power over storage services.
- Q. Please describe how you applied the Commission's Policy Statement and orders in specific proceedings to NE Hub's proposal.

In order to assess the potential exercise of market power, the Policy Statement requires that the analysis must properly identify the relevant product and geographic market for the proposed service. In addition, the number and type of alternatives available to potential customers of the proposed service have to be identified. The size of the market must be measured and market shares of participants in the market must be calculated to assess the likely presence of market power. Market shares are then used as screens to determine the level of concentration in the market by calculating the Herfindahl-Hirschman Index ("HHI"). As indicated in the Policy Statement, a small HHI indicates that sellers cannot exercise market power because customers have sufficiently diverse sources of supply in the relevant market and that no one firm or group of firms acting together could profitably raise market prices. The Commission has indicated that it will use 0.18 HHI (or 1,800 HHI) as an indication that closer scrutiny is warranted because the index indicates that the market is more concentrated and the applicant may have significant market power. In addition, the analysis requires an examination of the ease of entry of potential competitors. This is especially important because a firm will not be able to sustain a price increase of 10 percent or more over a two year period if competitors can easily enter the market in reaction to price increases above competitive market levels.

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Q. Please discuss the Commission's findings regarding market power for storage facilities located within the market area.

A. Avoca was the first market area storage facility to receive permission from FERC to charge market-based rates. Avoca is located in New York and the geographic market was defined as New York and Pennsylvania. The Commission concluded that Avoca's market share is small compared to the alternatives available to its customers. As a new entrant needing to attract customers, the Commission concluded that Avoca could not offer customers storage charges that are higher than the prevailing market price of storage. Second, the Commission concluded that other small entrants will prevent Avoca from exercising market power. Finally, the Commission concluded that entry into the storage market in Pennsylvania and New York is easy.

Steuben was the second market storage facility to receive permission from FERC to charge market-based rates. Like Avoca, Steuben is also located in New York and the geographic market was also defined as New York and Pennsylvania. The Commission concluded that the HHI for working gas capacity was 4,400 and the HHI for peak day deliverability was 3,600. Although the market is highly concentrated, the Commission concluded that Steuben is too small (market shares of 1.66-3.50 percent) to exercise market power. The Commission determined that the market has more than 28 times the capacity and deliverability of the Steuben storage facility. Therefore, the

Exhibit No.	_ (BMS-1)
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Commission concluded that Steuben represents a very small part of the market and would not be in a position to control the market.

#### III. NE HUB MARKET POWER ANALYSIS

- Q. Have you used the analytic framework required by FERC and which is outlined above to determine whether NE Hub, under its market-based rate proposal, could exercise significant market power?
  - A. Yes. Consistent with the analysis provided in Dr. George R. Hall's statement on November 2, 1995, in the updated market power analysis, I define the relevant market for NE Hub storage services, identify comparable alternatives to potential customers at Tioga, present data on the size of the market, market shares and HHI screens, present information on the ease of entry of potential competitors of NE Hub services and examine the likelihood that NE Hub will be able to raise prices above competitive levels. The analysis demonstrates that there are many alternatives available to potential customers of NE Hub's storage services in sufficient quantity so that customers could displace NE Hub's services should it attempt to raise prices above competitive levels.

#### A. Market Definition

- Q. Please define the relevant market.
- A. NE Hub proposes to charge market-based rates for firm and interruptible storage services. Storage services constitute the relevant product market for the NE Hub market power analysis.

The recent Egan decision¹ clarified the Commission's policy concerning geographic market definition and specified that only existing facilities or facilities currently under construction should be included in the market power analysis. The NE Hub market analysis includes only existing storage facilities. Consistent with the Commission policy regarding geographic market definition and consistent with the market definition found in Avoca and Steuben and with the earlier analysis submitted by Dr. Hall, the relevant geographic market for NE Hub adopted here includes only Pennsylvania and New York.

- 11 Q. Have you prepared a market power analysis for firm and interruptible storage services?
- A. Yes. I have prepared a market power analysis for the storage service products that NE Hub will offer potential customers.

- Q. Have you examined alternative storage facilities which may be alternatives to potential customers at NE Hub?
- A. Yes. Exhibit No. \_\_\_ (BMS-3) presents a listing of relevant storage facilities currently available in Pennsylvania and New York. There are 92 alternative

Egan Hub Partners, L.P., 77 FERC ¶ 61,016 (1996).

storage facilities located in the two state area. Working gas capacity of these facilities consists of 542,764 MMcf (excluding the Tioga facilities) and Tioga accounts for 1.09 percent of the total capacity. The HHI based on working gas capacity for storage in the two-state area is 3,659. Thus, the alternatives at other storage facilities in Pennsylvania and New York represent over 90 times the capacity at NE Hub's Tioga facility. Total peak day deliverability in Pennsylvania and New York for the 92 alternative storage facilities is 9,406 MMcf per day, as shown on Exhibit No.\_\_\_ (BMS-4). NE Hub accounts for only 5.05 percent of peak day deliverability of storage facilities located in the two states. The HHI based on peak day deliverability of the storage facilities in Pennsylvania and New York is 3,533. Alternatives at other storage facilities in Pennsylvania and New York based on a peak day deliverability represent 19 times the deliverability at NE Hub.

- Q. Do these high HHls indicate that NE Hub has market power in connection with storage services at the Tioga facility?
- A. No. The Policy Statement indicates that it will use HHIs as initial screens to determine whether closer scrutiny is warranted because the Commission has determined that the index indicates that the market is more concentrated and the applicant may have significant market power. The Commission regards a HHI of 1800 as indicative of a concentrated market. In both Avoca and

Steuben, the Commission found the geographic market for storage in Pennsylvania and New York to be concentrated with HHIs ranging from 3,600 to 4,401 (Steuben). Other factors considered by the Commission in light of such market concentration include whether the applicant is a new entrant in the highly concentrated marketplace, the relative market share of the applicant and the ease of entry of potential other storage suppliers.

The evidentiary facts in connection with NE Hub's application are very similar to the circumstances in <u>Avoca</u> and <u>Steuben</u>. NE Hub is a new entrant in the Pennsylvania and New York storage services market. It will control only 1.09 percent of the current storage capacity available in the market and 5.05 percent of the peak day deliverability in Pennsylvania and New York. Therefore, NE Hub is too small to exercise market power.

Storage facility ownership in Pennsylvania and New York is dominated by CNG Transmission with 56.29 percent of the working gas capacity in Pennsylvania and New York. National Fuel Gas owns 20.69 percent of the working gas capacity in Pennsylvania and New York. These two storage providers significantly dominate the storage market in Pennsylvania and New York, thereby creating a very concentrated market. A new entrant in this market of the magnitude of NE Hub would be too small to exercise market power.

As a new entrant, NE Hub must attract customers to Tioga. For this

reason, it can charge no more than the 92 alternative storage facilities, most

of which have rates subject to the Commission's cost-based rate regulation.<sup>2</sup>

Therefore, in order to attract customers, there is incentive for NE Hub to price

its storage services at rates comparable or below alternative storage facilities.

- Q. Are there any other factors that the Policy Statement discusses that should
   be considered in a market power analysis?
  - A. Yes, the Policy Statement states that ease of entry is another competitive factor that demonstrates that an applicant lacks market power.

- Q. Please describe your conclusions concerning ease of entry as it relates to storage facilities in Pennsylvania and New York.
  - A. Currently, there are four storage projects being planned in New York with working gas capacity of 32.35 Bcf. As shown on Exhibit No. \_\_\_\_ (BMS-5), the four projects include Balmat Gas Storage, J. Makowski and Associates, National Fuel Gas and New York State Electric and Gas. These projects will provide over 5.39 times the capacity offered by NE Hub.

Only the Avoca and Steuben facilities in New York have market-based rates.

#### IV. CONCLUSIONS

- Q. What conclusion do you reach concerning the market power potential of the
   NE Hub storage facility?
  - A. I conclude that NE Hub does not possess market power in connection with storage services. NE Hub is located in the market area where numerous storage service alternatives exist for potential customers at NE Hub. Although the storage service market is highly concentrated in Pennsylvania and New York due to the high market shares of CNG Transmission and National Fuel Gas, NE Hub is a new and small entrant. The new Tioga facility needs to attract customers and therefore, NE Hub will price its services accordingly to compete with the 92 alternative storage facilities available to customers in Pennsylvania and New York. NE Hub is too small to exercise market power.

Finally, the Commission approved market-based rates for the <u>Avoca</u> and <u>Steuben</u> storage facilities located in the same highly concentrated market area of Pennsylvania and New York. Approval to implement market-based rates was granted in <u>Avoca</u> and <u>Steuben</u> because the Applicants were new entrants into an already highly concentrated market area; the new facilities represent a small market share of the market; rate regulated storage services provided by others as alternatives to customers would prevent these new entrants from raising prices above competitive levels; and entry into storage

services was found to be relatively easy. The evidentiary facts concerning NE Hub are identical to <u>Avoca</u> and <u>Steuben</u>. Therefore, I conclude that the Commission should grant market-based rate authority for storage service to NE Hub because it does not possess any market power over storage services in Pennsylvania and New York.

Subscribed and sworn to before me this <u>Iral</u>

My commission expires:

LaCHELLE G. ROBINSON

Notary Public, District of Columbia My Commission Expires September 14, 2000

Exhibit No. \_\_\_\_ (BMS-2)

Economic Research & Consulting Washington, D.C.
Tel: 202 408 0272

#### BRUCE MACKALL SLOAN Senior Consultant

BRUCE MACKALL SLOAN has had extensive experience with the electric utility industry in connection with mergers, antitrust litigation, transmission access issues and QF contract provisions. She brings a combination of experience, training, presentation skills and management ability that places her in the top rank of her profession.

#### **EDUCATION**

M.B.A., George Mason University, Fairfax, VA, May 1995 Attended Oxford University, May 1994

B.A., (Honors), Economics, Connecticut College, New London, CT, 1973

A.A., Social Sciences, Bradford Junior College, Bradford, MA, 1971

#### PROFESSIONAL EXPERIENCE

Micronomics, Inc., Washington, D.C., December 1995 to present

Senior Consultant

Primary work on competitive market analysis in connection with regulatory filings for market-based rates for electric utilities and natural gas storage and hub services provider before the Federal Energy Regulatory Commission (FERC). Other work involved entry of Bell Operating Companies in video services markets. Antitrust work consisted of analytic studies of pricing behavior of pharmaceutical firms and analysis of competition to cable services in connection with the merger of two competing cable providers.

Law & Economics Consulting Group, Washington, D.C., February 1995-November 1995

Senior Economist

Extensive work on competitive market analysis in connection with regulatory filings for market-based rates and in connection with a major electric utility merger filing before the Federal Energy Regulatory Commission (FERC). Antitrust work consisted of analyzing the pricing behavior of the duopolist cellular service providers in the Los Angeles market to determine whether there existed tacit collusion between the providers. In addition, analyzed the market for ring laser gyroscopes in the commercial avionics market on behalf of Honeywell to determine whether there existed predatory pricing in response to a damage claim by Litton. Rebuttal of damages was based on the assessment of the marketing activities in this market.

#### Putnam, Haves & Bartlett, Washington, D.C., 1990-1995

Senior Associate

Extensive regulatory work consisted of competitive market analyses in connection with four major electric utility mergers. Significant participation in preparation of a report to the Massachusetts Department of Public Utilities concerning utility merger policy. Various analyses of incentive regulation schemes for electric and natural gas clients as a possible alternative to cost-based regulation within state and federal jurisdictions. Participated in an electric utility breach of contract suit by a qualifying facility on behalf of Pacific Gas & Electric. Prepared two competitive market analyses on behalf of a natural gas storage owner to obtain market-based rates from FERC.

Telecommunications experience consisted of preparation of an analysis of the federal telecommunications contract system with AT&T and Sprint in connection with FTS 2000. This analysis consisted of review of prices paid by the federal government versus prices available in the commercial market as well as availability of services.

Litigation experience consisted of participation in rebuttal of the largest commercial damage claim filed in Canada by seven oil companies alleging lost sales of syncrude oil over a multi-year period. Rebuttal entailed a detailed analysis of the crude and refined products markets in Canada and the U.S. In addition, assisted in the development of a typewriter dumping case for Smith Corona for use in an International Trade Commission (ITC) proceeding.

National Economic Research Associates, Inc., Washington, D.C. 1973-1974, 1975-1990

Senior Analyst

Extensive work in both antitrust and energy areas. Primary antitrust work involved work over a fiveyear period on behalf of AT&T in pending litigation with MCI, Southern Pacific Communications Corporation, equipment manufacturers and the Department of Justice over competitive market issues. Electric utility work primarily consisted of antitrust litigation (price squeeze issues and uranium price fixing issues) and general policy work on behalf of the utilities. Energy work consisted of assessment of available energy supplies (coal, oil and natural gas).

Greiner Environment Sciences, Inc., Baltimore, MD 1974-1975

Project Manager and Technical Writer

Responsibilities at Greiner consisted of economic analysis to assess the environmental impact of proposed highways, shopping centers and a mining project and the preparation of the draft and final environmental impact statements to be submitted to government agencies necessary to obtain project approvals. Other work consisted of analysis of fuel availability and price for several electric utilities.

#### OTHER

Member of the Board of Directors of Graham Smokeless Coal Company 1982 to present.

# Working Gas Capacity Existing Storage Facilities for Pennsylvania and New York (MMcf)

Operator	Field Name	Working Gas Capacity	% of Total	нні
North East Hub Partners, Ltd.;		- Cupacity		
Tioga	ľ	6,000		
Subtotal		6,000	1.09%	1.20
CNG Transmission:		<u> </u>		
CNG Transmission	Greenlick, PA	23,219		
CNG Transmission	Harrison, PA	20,718		
CNG Transmission	Leidy-Tamarack, PA	61,201		
CNG Transmission	North Summit, PA	11,500		
CNG Transmission	Oakford, PA	71,402		
CNG Transmission	Sabinsville, PA	17,702		
CNG Transmission	Sharon, PA	2,300		
CNG Transmission	South Bend, PA	5,810		
CNG Transmission	Tioga (East and West), PA	24,000		
CNG Transmission/National Fuel	Ellisburg, PA	52,530		
CNG Transmission	Woodhull, NY	18,492		
Subtotal:	,	308.874	56.29%	3,168.05
Columbia Gas:				,
Columbia Gas	Artemus A, PA	5,470		
Columbia Gas	Artemus B, PA	945		
Columbia Gas	Donegal, PA	4,375		•
Columbia Gas	Heard, PA	420	'	
Columbia Gas	Holbrook, PA	400	'	
Columbia Gas of PA	Blackhawk, PA	950		
Columbia Gas	Majorsville Deep, PA	3,846		
Columbia Gas	Majorsville Shallow, PA	857		
Columbia Gas	Munderf, PA	17		
Columbia Gas	Dundee, NY	3,570		
Columbia Gas	Greenwood, NY	575	<u>'</u>	
Columbia Gas	North Greenwood, NY	195		
Subtotal:		21,620	3.94%	15.52
Equitrans:				
Equitrans	Bunola, PA	3,216		
Equitrans	Finleyville, PA	357		
Equitrans	Hunter's Cave, PA	2,187		l
Equitrans	Pratt, PA	3,192		
Equitrans	Swarts, PA	416		
Equitrans	Swarts West, PA	687		
Equitrans	Tepe, PA	607		ı
Subtotal:		10,662	1.94%	3.77
Honeoye Storage Corporation:	1	1,		

Operator	Field Name	Working Gas Capacity	% of Total	нні
Honeoye Storage Corporation	Honeoye, NY	4,800	0.87%	0.77
J. Makowski Associates:		.,	0.0176	· · · ·
J. Makowski Associates	Avoca, NY	5,000	0.91%	0.83
National Fuel Gas:				
National Fuel Gas	Belmouth, PA	800		
National Fuel Gas	Boone Mountain, PA	930	ļ	
National Fuel Gas	Corry, PA	200		
National Fuel Gas	Deerlick, PA	100		
National Fuel Gas	Duhring, PA	105		
National Fuel Gas	East Branch, PA	4,500		
National Fuel Gas	Galbraith, PA	900		
National Fuel Gas	Hebron, PA	17,252		
National Fuel Gas	Henderson, PA	2,000		
National Fuel Gas	Keelor, PA	1,300		
National Fuel Gas	Markle, PA	85		
National Fuel Gas	Owl's Nest, PA	650		İ
National Fuel Gas	Queen, PA	300		
National Fuel Gas	St. Mary's, PA	170		
National Fuel Gas	Summit, PA	1,600		
National Fuel Gas	Swede Hill, PA	300	]	
National Fuel Gas	Wellendorf, PA	450		
National Fuel Gas	Wharton, PA	18,534		
National Fuel Gas	Bennington, NY	1,800		
National Fuel Gas	Colden, NY	7,550		
National Fuel Gas	Collins, NY			
National Fuel Gas	Derby, NY	2,250 250		
National Fuel Gas  National Fuel Gas	-	l		
National Fuel Gas  National Fuel Gas	Holland, NY East Independence, NY	900 1,560		İ
National Fuel Gas	-	· ·		
· ·	West Independence, NY	4,089		
National Fuel Gas	Beech Hill, NY	9,595		;
National Fuel Gas	Independence/Beech Hill, NY	19,400		
National Fuel Gas	Lawtons, NY	970		
National Fuel Gas	Limestone, NY	3,700		
National Fuel Gas	Nashville, NY	3,930		
National Fuel Gas	Perrysburg, NY	1,850		
National Fuel Gas	Sheridan, NY	1,100		
National Fuel Gas	Tuscarora, NY	3,800		
National Fuel Gas	Zoar, NY	600	20 (00)	
Subtotal:	<b>\</b>	113,520	20.69%	427.93
New York State Electric and Gas:		000		
New York State Electric and Gas	Seneca Lake, NY	800	0.15%	0.02
North Penn Gas Company:				
North Penn Gas Company	Meeker, PA	3,000		
North Penn Gas Company	Palmer, PA	10,000		
Subtotal:	1	13,000	2.37%	5.61
People's Natural Gas:				
People's Natural Gas	Colvin, PA	510		
People's Natural Gas	Gamble-Hayden, PA	1,122		
People's Natural Gas	Murraysville, PA	1,530		
People's Natural Gas	Rager Mountain, PA	9,300	}	
People's Natural Gas	Truittsburg, PA	2,142		
People's Natural Gas	Patton, PA	63		

Operator	Field Name	Working Gas Capacity	% of Total	нні
People's Natural Gas	Webster, PA	<u>558</u>		
Subtotal:		15,225	2.77%	7.70
Steuben Gas Storage:				
Steuben Gas Storage	Adrian (Steuben), NY	6,200		
Steuben Gas Storage	Thomas Corner, NY	<u>5,300</u>		
Subtotal:	1	11,500	2.10%	4.39
Tennesee Gas Pipeline Co.:				
Tennesee Gas Pipeline Co.:	NY			
Tennesee Gas Pipeline Co.:	PA			
Subtotal:		22,500	4.10%	16.81
Transcontinental Gas Pipe Line Corp.:	ļ		ļ	į
Transcontinental	PA			
Transcontinental	PA	1		
Subtotal:		13,600	2.48%	6.14
T.W. Phillips Gas & Oil Co.:				
T.W. Phillips Gas & Oil Co.	Alabran, PA	280		
T.W. Phillips Gas & Oil Co.	Clark, PA	325	}	'
T.W. Phillips Gas & Oil Co.	Fair, PA	36		
T.W. Phillips Gas & Oil Co.	Gouley Miller, PA	100		
T.W. Phillips Gas & Oil Co.	Hughes, PA	138		
T.W. Phillips Gas & Oil Co.	Kinter, PA	189		
T.W. Phillips Gas & Oil Co.	Portman, PA	196		
T.W. Phillips Gas & Oil Co.	Smith-Park, PA	33		
T.W. Phillips Gas & Oil Co.	Sprankle, PA	265		
T.W. Phillips Gas & Oil Co.	Vardy, PA	<u>101</u>		
Subtotal:		1,663	0.30%	0.09
TOTAL:		548,764	100%	3,658.83

#### Peak Day Deliverability of Existing Storage Facilities for Pennsylvania and New York (MMcf/d)

Operator	Field Name	Peak Day Deliverability	% of Total	нні
North East Hub Partners, Ltd.:				
Tioga		500.0		
Subtotal		500.0	5.05%	25.4
CNG Transmission:				
CNG Transmission	Greenlick, PA	612.0		
CNG Transmission	Harrison, PA	455.0		İ
CNG Transmission	Leidy-Tamarack, PA	1,224.0		
CNG Transmission	North Summit, PA	105.0		
CNG Transmission	Oakford, PA	775.0		
CNG Transmission	Sabinsville, PA	418.0		
CNG Transmission	Sharon, PA	26.0		ı
CNG Transmission	South Bend, PA	173.0		
CNG Transmission	Tioga (East and West), PA	504.0		
CNG Transmission/National Fuel		1,046.0		
CNG Transmission	Woodhull, NY	357.0		
Subtotal;	l	5,695.0	57.49%	3,304.9
Columbia Gas:				
Columbia Gas	Artemus A, PA	147.0		
Columbia Gas	Artemus B, PA	16.0		
Columbia Gas	Donegal, PA	214.0		
Columbia Gas	Heard, PA	2.0		
Columbia Gas	Holbrook, PA	5.0		
Columbia Gas of PA	Blackhawk, PA	12.0		
Columbia Gas	Majorsville Deep, PA	47.0		
Columbia Gas	Majorsville Shallow, PA	10.0		
Columbia Gas	Munderf, PA	2.0		
Columbia Gas	Dundee, NY	80.0		
Columbia Gas	Greenwood, NY	3.0		
Columbia Gas	North Greenwood, NY	4.0		
Subtotal:		542.0	5.47%	29.9
Equitrans:				
Equitrans	Bunola	179.0		
Equitrans	Finleyville	42.0		
Equitrans	Hunter's Cave	32.0		·
Equitrans	Pratt	48.0		
Equitrans	Swarts	42.0		
Equitrans	Swarts West, PA	23.0		
Equitrans	Tepe, PA	49.0		
Subtotal:		415.0	4.19%	17.5
Honeoye Storage Corporation:		i		
Honeoye Storage Corporation	Honeoye, NY	40.0	0.40%	0.1

Operator	Field Name	Peak Day Deliverability	% of Total	нні
J. Makowski Associates:				_
J. Makowski Associates	Avoca, NY	500.0	5.05%	25.48
National Fuel Gas:				
National Fuel Gas	Belmouth, PA	9.0		
National Fuel Gas	Boone Mountain, PA	8.0	ŀ	
National Fuel Gas	Corry, PA	26.0		
National Fuel Gas	Deerlick, PA	0.0		
National Fuel Gas	Duhring, PA	0.0		
National Fuel Gas	East Branch, PA	35.0	İ	
National Fuel Gas	Galbraith, PA	10.0		
National Fuel Gas	Hebron, PA	40.0		
National Fuel Gas	Henderson, PA	15.0		
National Fuel Gas	Keelor, PA	40.0		
National Fuel Gas	Markle, PA	7.0		
National Fuel Gas	Owl's Nest, PA	5.0		
National Fuel Gas	Queen, PA	4.0		
National Fuel Gas	St. Mary's, PA	1.0	ļ	
National Fuel Gas	Summit, PA	40.0		
National Fuel Gas	Swede Hill, PA	5.0		
National Fuel Gas	Wellendorf, PA	4.0		
National Fuel Gas	Wharton, PA	40.0		
National Fuel Gas	Bennington, NY	75.3		
National Fuel Gas	Colden, NY	110.0		
National Fuel Gas	Collins, NY	50.0		
National Fuel Gas	Derby, NY	5.0		
National Fuel Gas	Holland, NY	25.0	1	1
National Fuel Gas	East Independence, NY	14.7	1	
National Fuel Gas	West Independence, NY	48.7		
National Fuel Gas	Beech Hill, NY	66.0		
National Fuel Gas	Lawtons, NY	21.0		
National Fuel Gas	Limestone, NY	37.0	ŀ	
National Fuel Gas	Nashville, NY	110.0		
National Fuel Gas	Perrysburg, NY	35.0	ľ	
National Fuel Gas	Sheridan, NY	25.0	ļ	
National Fuel Gas	Tuscarora, NY	57.0		
National Fuel Gas	Zoar, NY	<u>40.0</u>		
Subtotal:		1,008.7	10.18%	103.68
New York State Electric and Gas:				
New York State Electric and Gas	Seneca Lake, NY	80.0	0.81%	0.65
North Penn Gas Company:				
North Penn Gas Company	Meeker, PA	41.0	i	
North Penn Gas Company	Palmer, PA	<u>80.0</u>		
Subtotal:	1	121.0	1.22%	1.49
People's Natural Gas:				
People's Natural Gas	Colvin, PA	87.0		
People's Natural Gas	Gamble-Hayden, PA	36.0		
People's Natural Gas	Murraysville, PA	112.0		
People's Natural Gas	Rager Mountain, PA	120.0	ł	
People's Natural Gas	Truittsburg, PA	102.0		
People's Natural Gas	Patton, NY	0.6	1	
People's Natural Gas	Webster, PA	<u>25.0</u>	(	
Subtotal:	<u></u>	482.6	4.87%	23.73

Operator	Field Name	Peak Day Deliverability	% of Total	нні
Steuben Gas Storage:				
Steuben Gas Storage	Adrian (Steuben), NY	60.0		
Steuben Gas Storage	Thomas Corner, NY	<u>70.0</u>		
Subtotal:		130.0	1.31%	1.72
Tennesee Gas Pipeline Co.:				
Tennesee Gas Pipeline Co.:	NY			1
Tennesee Gas Pipeline Co.:	PA			
Subtotal:		225.0	2.27%	5.16
Transcontinental Gas Pipe Line Corp.:				
Transcontinental	PA			
Transcontinental	PA	ļ		
Subtotal:		136.0	1.37%	1.88
T.W. Phillips Gas & Oil Co.:				
T.W. Phillips Gas & Oil Co.	Alabran, PA	3.0		
T.W. Phillips Gas & Oil Co.	Clark, PA	0.0		
T.W. Phillips Gas & Oil Co.	Fair, PA	1.0		
T.W. Phillips Gas & Oil Co.	Gouley Miller, PA	0.0	<u>'</u>	
T.W. Phillips Gas & Oil Co.	Hughes, PA	3.0		
T.W. Phillips Gas & Oil Co.	Kinter, PA	7.0		
T.W. Phillips Gas & Oil Co.	Portman, PA	8.0		
T.W. Phillips Gas & Oil Co.	Smith-Park, PA	1.0		
T.W. Phillips Gas & Oil Co.	Sprankle, PA	3.0		
T.W. Phillips Gas & Oil Co.	Vardy, PA	5.0		
Subtotal:		31.0	0.31%	0.10
TOTAL:		9,906.3	100%	3,533.43

Storage Facilities Under Development .						
Operator	County	Field Name	Footnote	Working Gas Capacity (MMcf)	Peak Day Deliverability (MMcf/d)	
Balmat Gas Storage	St Lawrence	Balmat, NY	Under Development	1,500	110	
J. Makowski and Associates	Tompkins	Cayuta, NY	Project on Hold	6,200	500	
National Fuel Gas	Jefferson	Laurel Fields, NY	In development, with in-service date of 199". Deliverability depends on ultimate use of field, could total 120 Mincf if used for 100 day haseload service or reach 185-250 Mincf if used for peaking. This project represents the combined capacity of the 1996 Limestone Expansion and Callen Run.	24,000	120	
New York Electric and Gas	Schuyler	Seneca, NY	This is an expansion of the current facility at Seneca. (These numbers represent the total minus the capacity already noted in exhibits BMS-3 and 4)	650	86	
TOTAL:				32,350	810	