A Reexamination of Market-Based Pricing of Storage and Hub Services at Market Hub Partners’ Egan and Moss Bluff Facilities

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I. INTRODUCTION

Egan Hub Partners, L.P. ("Egan") owns and operates the Egan storage facility in Acadia Parish, Louisiana. Moss Bluff Hub Partners, L.P. ("Moss Bluff") owns and operates the Moss Bluff storage facility in Liberty and Chambers Counties, Texas. Both Egan and Moss Bluff have been authorized by the Federal Energy Regulatory Commission ("Commission") to charge market-based rates for firm storage and interruptible hub services.[1] The fundamental predicate for the Commission's grant of market-based rate authority to Egan and Moss Bluff was the Commission's determination that they would not be able to exercise market power.

NiSource Inc. ("NiSource") is a partner in Egan and Moss Bluff. NiSource proposes to merge with Columbia Energy ("Columbia"). I have been requested to update my prior market power studies for Egan and Moss Bluff to examine whether this merger would likely change the conditions that lead the Commission to conclude that Egan and Moss Bluff would not be able to exercise market power over natural gas storage and hub services in the relevant market. My qualifications are presented in Exhibit No. ___ (BMM-1). This report sets forth my updated analysis and conclusions.

II. SUMMARY

I have undertaken an analysis of storage services in the relevant geographic market following the Commission's guidelines for analysis of market power in connection with applications for market-based rates.[2] Also, the Commission has issued subsequent orders regarding market-based rates for storage services, which further clarify the Commission requirements for market-based rates.

My market power study analyzed market share and concentration statistics for storage services in the Gulf Coast area based peak day deliverability and working gas capacity measures. Consistent with prior analyses and Commission orders regarding this geographic market, the market power study shows that the market is not concentrated (HHIs below 1,800). The lack of concentration in the market is attributable to the fact that both facilities are located in the Gulf Coast production area. The

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1 Egan Hub Partners, L.P., 77 FERC ¶ 61,016 (1996), Moss Bluff Hub Partners, L.P., 80 FERC ¶ 61,181 (1997), hereinafter referred to as Egan and Moss Bluff.

2 Federal Energy Regulatory Commission, "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). Hereinafter referred to as "Policy Statement."

combination of Egan, Moss Bluff and Columbia ("merged company") storage facilities would result in no change in Egan and Moss Bluff's market shares based on peak day deliverability and based on working gas capacity because Columbia does not own any storage facilities in the Gulf Coast area. Nonetheless, I updated my prior analyses to provide the Commission with the current information.

In connection with storage services, there are 44 alternative storage facilities available to Egan and Moss Bluff Hub customers in the Gulf Coast production area. In addition, there are 8 facilities currently under construction and/or expansion of existing facilities, which indicate low barriers to entry. These market measures indicate that Egan and Moss Bluff Hubs do not possess market power in connection with storage services and that there are numerous alternatives available to Egan and Moss Bluff storage customers should Egan or Moss Bluff attempt to raise prices above competitive levels. Therefore, I conclude that the Commission should allow Egan and Moss Bluff to continue charging market-based rates for firm storage services.

In connection with hub services, there are eleven alternative hubs available to Egan and Moss Bluff customers in Gulf Coast area. The "bingo card" analysis that has been prepared to conform with the Commission's precedent on market power indicates that there are 48 alternative bi-directional paths for shippers at Egan to transfer natural gas among pipelines at Egan Hub. There are 99 alternative bi-directional paths for shippers at Moss Bluff to transfer natural gas among pipelines.

There are 28 additional incoming bi-directional interstate interconnections on pipelines connected to Egan Hub with 5,659 MMcf per day. There are 37 additional outgoing bi-directional interstate interconnections on pipelines connected to Egan Hub with 7,786 MMcf per day. This analysis indicates that customers at Egan Hub have numerous alternatives if Egan Hub raises prices above competitive levels. At Moss Bluff, there are 39 incoming bi-directional interconnection alternatives with 6,017 MMcf per day. There are 56 outgoing interconnection alternatives with 9,021 MMcf per day.

Egan and Moss Bluff hub customers have paths available to the eleven alternative hubs on pipelines interconnected to Egan and Moss Bluff. Given the numerous other hub services alternatives available to Egan and Moss Bluff hub customers, MHP will be unable to raise and sustain supra-competitive price levels. Therefore, I conclude that the Commission should allow Egan and Moss Bluff to continue to charge market-based rates for hub services because nothing has changed due to the merger with Columbia.

III. DESCRIPTION OF EGAN AND MOSS BLUFF HUB FACILITIES

Egan Hub

Egan Hub is a limited partnership with Egan Hub Partners, Inc., the sole general partner and Market Hub Partners, L.P. (MHP), the sole limited partner. Egan Hub and MHP are wholly-owned subsidiaries of NiSource, Inc. The facility consists of two salt dome storage caverns located in Acadia Parish, Louisiana. Aggregate certified capacity of Caverns 1 and 2 is currently 9.5 Bcf. Egan Hub's total working capacity is 16 Bcf for a total operational capacity of approximately 15.5 Bcf.[3] Current peak day deliverability is 1,500 MMcf per day.

Egan Hub's 12.3 mile header system enables Egan Hub to transport, store and/or deliver gas from five interstate pipelines: ANR Pipeline Company, Columbia Gulf Transmission Company, Tennessee Gas Pipeline Company, Texas Gas Transmission Corporation, and Trunkline Gas Company. Incoming and outgoing capacity of pipelines interconnected at Egan Hub is currently 3,600 MMcf per day.

Moss Bluff Hub

Moss Bluff Hub is a limited partnership with Moss Bluff Hub Partners, Inc., the sole general partner and MHP, the sole limited partner. Moss Bluff Hub and MHP are wholly-owned subsidiaries of NiSource, Inc. Moss Bluff Hub consists of three salt cavern storage facilities located in Liberty and Chambers counties, Texas. It has working gas capacity of 12 Bcf, peak day deliverability of 1.2 Bcf per day and a header system which is 100-200 feet from the three caverns. These facilities enable Moss Bluff to transport, store and/or deliver gas from two interstate pipelines, Natural Gas Pipeline Company of America ("NGPL") and Texas Eastern Transmission Corporation ("Texas Eastern") and four intrastate pipelines, Channel Industries ("Channel"), Houston Pipeline ("Houston"), MidCon Texas Pipeline ("MidCon") and Tejas Gas Pipeline ("Tejas"). Incoming capacity of pipelines connected at Moss Bluff is 1,260 MMcf per day and outgoing capacity is 1,450 MMcf per day.

The Egan and Moss Bluff hubs offer long-term firm storage services and interruptible hub services. The interruptible hub services include: 1) parking or peaking interruptible capacity services; 2) wheeling or movement of gas from one pipeline to another over the header facilities; 3) intra-hub transfer of gas from one shipper to another; 4) balance and imbalance trading or use of gas a customer has borrowed to keep its agreements with a pipeline within tolerance limits; 5) loans or

[3] On April 27, 2000,Egan withdrew an application to expand the operational capacity in its two caverns to 21 Bcf for unrelated business reasons.

loaning of gas to be repaid at a later time; 6) gas title transfer or change in the name and/or contract under which gas is flowing on connecting pipelines.

IV. REQUIREMENTS FOR MARKET-BASED RATE AUTHORITY

The Commission has set forth requirements for market-based rate authority in the Policy Statement and has further clarified the requirements in other Commission decisions concerning market-based rates. As discussed in the Policy Statement, the Commission has determined that an Applicant for market-based rate authority must demonstrate that it lacks significant market power. Although the Commission evaluates proposals for market-based rates on a case-by-case basis, it considers a variety of factors to determine whether an Applicant may have market power. Typically, the Commission reviews the project's market share and market concentration, excess capacity in the market available to shippers, the number and type of alternatives available to shippers and barriers to entry. In addition, the Commission requires that an individual company seeking approval to charge market-based rates must demonstrate that it cannot exercise market power by raising and sustaining a rate of increase of 10 percent or more over competitive levels for a period of two years or more.

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 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 because no one firm or group of firms acting together could profitably raise prices. The Commission has indicated that it will use 0.18 HHI (or 1,800 HHI) as a screen indicating that closer scrutiny is warranted because a HHI of 0.18 indicates that the market is relatively concentrated and that the Applicant may have significant market power. In addition, the analysis requires an examination of the ease of entry by 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 enter the market easily in reaction to price increases above competitive market levels.

The Commission has approved market-based rates for storage facilities and distinguishes between production area storage facilities and market area facilities. Approval of market-based rates for production area storage include the following: <u>Richfield Gas Storage System</u>, 59 FERC ¶ 61,316 (1992); <u>Transok, Inc.</u>, 64 FERC ¶ 61,095 (1993); <u>Koch Gateway Pipeline Company</u>, 66 FERC ¶

61,351 (1994); Ouachita Gas Storage Company, L.L.C., 68 FERC ¶ 61,402 (1994) and order issuing certificate, 76 FERC ¶ 61,139 (1996); Bay Gas Storage, 66 FERC ¶ 61,351 (1994); Equitable Storage Company, 75 FERC ¶ 61,081 (1996); Egan Hub Partners, L.P., 77 FERC ¶ 61,061 (1996); and Moss Bluff Hub Partners, L.P., FERC ¶ 80 FERC ¶ 61,181 (1997).

Commission approval for market-based rates for interruptible hub services has been limited because there must be a demonstration that all customers must have reasonable alternatives. As noted in Ouachita, 68 FERC ¶ 61,402 (1996), the customers lacked alternatives at half of the interconnects and the Commission denied the request for market-based rates. The analysis I undertook in Egan Hub and Moss Bluff Hub's applications for market-based rates for interruptible hub service provided the Commission with a "bingo card" or matrix of all possible interconnects for pipelines attached to the hub to indicate whether good alternatives exist for customers. In both applications, the bingo card was completely filled in. In addition, the analyses identified non-affiliated hub facilities which provide good alternatives, as defined by the Commission Policy Statement.

Egan Decision

In Egan, the Commission granted Egan the authority to charge market-based rates for firm storage and interruptible hub services. This decision relied on Egan's market analysis and concluded that Egan did not possess market power in connection with the provision of firm storage and interruptible hub services. In connection with storage services, the Commission concluded that there were 17 storage facilities not affiliated with Egan providing customers with working gas capacity of 459,553 MMcf and with peak day deliverability of 14,356 MMcf per day. The Commission concluded that Egan's low market share of and the concentration level for storage services was well below the threshold adopted by the Policy Statement and indicated that firm storage customers have sufficient number of alternatives.

In connection with interruptible hub services, as noted above, the Commission accepted the bingo card analysis which showed that there were alternatives to each of the 30 interconnects, some with as many as five alternatives, and that there were with a total of 76 alternative paths to move gas between pipelines connected at Egan.[4] In addition, the Commission relied upon the market study's identification of nine non-affiliated hub facilities having 30 connections to the five pipelines that interconnect at Egan as an indication of available alternatives to customers.

[4] At the time, Egan was negotiating an interconnection with Transcontinental Gas Pipe Line Company ("Transco") and was included as an interconnection in the analysis. This interconnection was never executed and therefore the updated analysis has deleted Transco from the analysis.

The Commission also concluded from the market study that evidence indicates that entry into the storage market is relatively easy. In addition, announced opening of market centers and the fact that header systems can be built in a short period of time, without large capital cost in order to take advantage of pipelines in close proximity to provide hub services, as well as being able to provide hub services without construction of header systems demonstrate ease of entry in hub services, as well.

Moss Bluff Decision

In Moss Bluff, the Commission reached similar conclusions for Moss Bluff as it did in Egan concerning market power in the provision of firm storage and interruptible service by Moss Bluff. In connection with firm storage services, the Commission found that Moss Bluff's market shares and market concentration levels to be within the threshold established by the policy statement.

Moss Bluff's bingo card indicated that there are alternatives to each of the 30 interconnects. The bingo card indicates that there are a total of 99 alternative paths for gas to move between the pipelines at Moss Bluff, and as many as seven alternatives at some interconnects.

V. EGAN AND MOSS BLUFF MARKET POWER ANALYSIS

Relevant Product Markets

Consistent with my prior market power analyses for Egan and Moss Bluff, the relevant products consist of firm storage services and interruptible hub services. Firm storage services includes both firm and secondary firm services. Under firm storage service, a demand charge is paid to reserve capacity, regardless of usage. Secondary firm service also requires payment of a demand charge, but the amount is less than the firm service demand charge. Firm service customers can displace secondary firm customers. As a general matter, secondary firm service is designed for customers who desire firm service only during certain months of the year.

Interruptible hub services include: 1) parking, diverting out-of-tolerance gas supplies to the hub for parking; 2) wheeling or movement of gas to one pipeline to another over the hub's leader system; 3) balancing and imbalance trading, use of gas a customer has previously stored or gas that the customer has borrowed to keep its agreements with a pipeline within tolerance; 4) loans, loaning of gas to be repaid at a later time; and 5) gas title transfer, a change in the name and/or contract under which gas is flowing on connecting pipelines.

Relevant Geographic Market

Consistent with the Moss Bluff market power study, I define the relevant geographic market to include only the Gulf Coast states of Texas and Louisiana, the states where Egan and Moss Bluff facilities are located. The Gulf Coast area also includes Mississippi, but I have chosen to use the narrowest possible geographic market definition.[5]

A. Storage Services Analysis

Exhibits No. __ (BMM-2) and (BMM-3) provide a listing of the storage facilities in Louisiana and Texas. As shown on these exhibits, there are 44 alternative storage facilities available to MHP customers.

Exhibit No. __ (BMM-2) presents storage market shares and the HHI statistics, as measured by working gas capacity. MHP's market share is only 4.5 percent. Available storage in the 44 alternative facility, as measured by working gas capacity, is 599,669 MMcf, or over 20 times the capacity available at the MHP facilities. This market is not concentrated and the HHI is only 878. The merger of NiSource and Columbia has no effect on the market concentration of storage services in the Gulf Coast.

Exhibit No. ___ (BMM-3) presents storage market shares and the HHI statistic, as measured by peak day deliverability. MHP's market share is 13.5 percent. Available storage in the 44 alternative facilities, as measured by peak day deliverability, is 17,358 MMcf per day, or over six times the deliverability available at the MHP facilities.

There are eight new storage facilities under development or where expansion is planned at existing facilities, as shown on Exhibit No. ___ (BMM-3). As noted by the Commission in the Egan and Moss Bluff decisions, these new facilities demonstrate that entry into the storage market, particularly in the production region is relatively easy.

The Commission's findings concerning storage services in Egan and Moss Bluff remain valid. The Commission concluded that there is low market concentration in the storage services market, evidencing a lack of market power and that new entry is relatively easy.

5 Based on the Commission finding in Egan, only existing facilities should be included in the market power analysis (i.e., do not include planned facilities). MHP is planning to construct a storage facility in Copiah County, Mississippi. The Copiah facility will have 3 Bcf of storage capacity and it is anticipated to be available April 2003. Because Copiah is a planned facility, it has not been included in the market power analysis.

B. Hub Services

The Commission has relied on the "bingo card" analysis, described earlier, to determine if all customers at the hub have an alternative path to the hub. Exhibit No. __ (BMM-4) is a bingo card matrix of the interconnects at Egan. As shown on the exhibit, there are alternative paths at every one of the 20 interconnects, totaling 48 alternative paths.[6] Exhibit No. ___ (BMM-5) is a bingo card matrix of the interconnects at Moss Bluff. As shown on this exhibit, there are alternative paths at every one of the 30 interconnects, totaling 99 alternative paths.

Exhibit Nos. ___ (BMM-6) and (BMM-7) show the number of bi-directional alternative interconnections to each pipeline connected to Egan and Moss Bluff. Exhibit No. ___ (BMM-6) shows that there are 28 incoming interconnects and 37 outgoing interconnections at Egan. Exhibit No. ___ (BMM-7) shows that there are 39 incoming interconnects and 56 outgoing interconnects at Moss Bluff. These exhibits indicate that there is sufficient alternative incoming and outgoing capacity available to MHP customers.

In addition, I have identified eleven existing hubs in Texas and Louisiana that could be substituted for MHP hub services, as shown on Exhibit No. ___ (BMM-8). Exhibit No. ___ (BMM-9) indicates which of the pipelines connected to Egan can reach these hubs. As indicated on Exhibit No. ___ (BMM-9), there are 26 direct paths from Egan to alternative hubs. Exhibit No. ___ (BMM-10) shows the same analysis for Moss Bluff. Moss Bluff customers have 25 direct paths to alternative hubs.

The Commission's findings concerning hub services in <u>Egan</u> and <u>Moss Bluff</u> remain valid. The Commission concluded that there exists sufficient meaningful alternatives to MHP hub services customers and therefore MHP does not have market power in connection with the provision of hub services. In addition, the Commission concluded that entry into the provision of hub services is relatively easy because header systems can be built to pipelines in close proximity in a short period of time, without large capital costs.

VI. CONCLUSION

The updated analysis of the firm storage and interruptible hub services market supports the Commission's prior findings in <u>Egan</u> and <u>Moss Bluff</u> that there are no market power concerns in MHP's provision of firm storage and interruptible hub services. Therefore, MHP should be allowed to continue charging market-based rates for these services.

[6] This bingo card differs from the prior market analysis because Transco was considered in the first analysis and eliminated in the updated analysis.