UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

San Diego Gas & Electric Company, Complainant v. Sellers of Energy and Ancillary Services Into Markets Operated by the California Independent System Operator and the California Power Exchange, Respondents	)	**Docket No. EL00-95-045**
Investigation of Practices Of the California Independent System Operator and the California Power Exchange	)	**Docket No. EL00-98-042**
Fact Finding Investigation of Potential Manipulation of Electric and Natural Gas Prices	)	**Docket No. PA02-2-000**

COMMENTS OF THE NATURAL GAS SUPPLY ASSOCIATION

In August 2002, the Staff of the Federal Energy Regulatory Commission ("FERC" or "Commission") released a report titled "Initial Report on Company-Specific Separate Proceedings and Generic Revaluations; Published Natural Gas Price Data; and Enron Trading Strategies," at Docket No. PA02-2-000 ("the Staff Report"). On August 13, 2002, the FERC issued a notice requesting comments on one of the issues in the Staff Report, which relates to the method for determining natural gas prices for purposes of calculating refunds in the California electric refund case,[1] and how scarcity of capacity should be accounted for in the calculation.[2]

I.

EXECUTIVE SUMMARY

The Staff Report indicates that published, natural gas delivery-point price data are not sufficiently reliable to be used in the California refund proceeding[3] for purposes of calculating refunds.[4] The Natural Gas Supply Association ("NGSA") is filing these comments in response to that claim. The NGSA is very concerned that the implication of manipulation of the natural gas market may leave the door open for further FERC evaluations that are beyond the scope of the instant proceeding, or that the statements in the Staff Report may be taken out of context.

Therefore, the NGSA is filing these comments to offer its perspective on the causes of the natural gas prices in the California market during the 2000-2001 period. There are many reasons, other than the manipulation of the natural gas market,

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[1] San Diego Gas & Electric Co., et al., Docket Nos. EL00-95-045 and EL00-98-042.

[2] Comments were originally due September 12, 2002, but the comment date was extended to October 15, 2002, pursuant to a second notice issued on September 6, 2002.

[3] San Diego Gas & Electric Co., et al., 96 FERC ¶ 61,120, order on reh'g, 97 FERC ¶ 61,275 (2001).

[4] Staff Report at 57.

that explain why natural gas prices at the California border were unusually high. These include unprecedented natural gas demand by electric generators, inadequate pipeline infrastructure, and poorly conceived regulations at the electric retail level in California, all exacerbated by a hot and dry summer.

Accordingly, the NGSA offers the following four recommendations for consideration by the Commission in the context of the instant consolidated electric refund proceedings:

> 1. Before deciding on the appropriate inputs for calculating power refunds, the Commission should perform an Herfindahl-Hirschman Index ("HHI") analysis to measure competition in the natural gas market at the California border in order to determine whether market-power abuse could have affected prices there.
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> 2. If there is evidence of market-power abuse by some, then, for those parties not guilty of the abuse, any replacement methodology should at a minimum guarantee recognition of actual natural gas costs by those market participants. In the event of an affiliate sale where the Commission is wary of the price, the Commission should use an average price of similarly situated non-affiliated end-user transactions.
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> 3. No changes are necessary in natural gas regulation as a result of these refund proceedings. Whatever methodology for calculating gas costs for electric refunds that is decided by the FERC should be limited to this proceeding and not used for any other purpose.
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> 4. The FERC should continue its proactive investigations and penalize market players who have exercised market power and/or violated the FERC's regulations.

II.

INTRODUCTION

The NGSA is a national trade organization that represents integrated and independent companies that produce and market natural gas. The NGSA is filing these comments in response to the Staff Report in order to comment on the role played by natural gas in the California energy crisis. These comments explain why it is important for the FERC in the electric refund case to recognize all of the causes of the natural gas price increases at the California border in the 2000-2001 period. As demonstrated herein, the price increases due to increased natural gas demand and insufficient pipeline infrastructure cannot be ignored.

The NGSA submits that the energy problems in California during the 2000-2001 period, while severe, were abnormal, as documented below. Since the spring of 2001, both the electric and gas markets have returned to normal. Government agencies and other industry experts have concluded that it was primarily the flawed market design of the restructured electric market in California (in combination with weather factors) that led to shortages in electricity, which in turn led to increased demand in the natural gas market. Government agencies and industry experts have also concluded that the shortages in the natural gas market were primarily the result of insufficient pipeline infrastructure, and not lack of gas supplies.

This lack of infrastructure translates into scarcity, and scarcity translates into higher prices. But higher prices are not evidence of abuse. As the D.C. Circuit Court of Appeals observed in reviewing Order No. 637, "[a] surge in the price of candles during a power outage is no evidence of monopoly in the candle market."[5] But even if the Commission confirms that certain market participants manipulated the market and/or abused market power in the natural gas market, there is no evidence of the extent, if any, to which such abuse created higher natural gas prices. There may have been some abuse, but it would be unfair and bad public policy to penalize all natural gas market participants for the illegal actions of certain market players who engaged in such abuse. The wrongdoers should be punished, but those who played by the rules should not be negatively impacted by the punishment procedures. Furthermore, if there are to be market structure changes to prevent future problems, it should be to the California electric market, not to the national natural gas market.

The NGSA is not an active party in the electric refund case. However, these comments have a direct bearing on how the FERC

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[5] Interstate Natural Gas Ass'n of America v. FERC, 285 F.3d 18, 32 (D.C. Cir. 2002).

should value the natural gas prices for purposes of those electric refunds. Although the Staff properly recognizes that scarcity needs to be accounted for, its proposed methodology for valuing gas for purposes of calculating refunds does not adequately consider the impact of scarcity.

Scarcity is indicated by the large basis differentials to the California market. The existence of scarcity is not per se proof of market manipulation. Before rejecting actual market prices at the California border as the proper measure in the electric refund calculation, the Commission should perform an HHI analysis to measure the number of participants in the California market and quantify the market shares held by each in that market, in order to determine whether or not the market was competitive.

In the Staff Report, the Staff found that even at its height, producing basin prices "were substantially independent of the volatility afflicting the California spot gas and power markets."[6] Thus, natural gas commodity prices were not the problem; rather, the pipelines' delivery point prices were driven by the increase in basis differentials, which reflected the market value of transportation capacity. Moreover, the capacity market has since responded to the market signals coming from the

[6] Staff Report at 71. See also Figure 6, Southern California Spot vs. Producing Area Prices at 64.

California market with regard to pipeline expansions, both interstate and within the state of California. If the Commission were to place artificial caps on downstream gas prices, it would eliminate incentives to purchase firm capacity on pipelines, and, as a consequence, would impact needed proposals for pipeline infrastructure. Absent the correct price signals, California, as well as other regions, would stand a greater chance of facing similar problems more frequently.

Accordingly, the NGSA urges the FERC, at a minimum, to surgically limit its natural gas pricing remedy in this proceeding, whatever it turns out to be, to the specific electric refund case at issue. The natural gas market has operated overwhelmingly as a healthy, robust, transparent and liquid market since restructuring a decade ago. Thus, whatever the FERC determines is the proper natural gas pricing mechanism in the electric refund methodology, it should have no precedential effect for any other regulatory purpose.

III.

DESCRIPTION OF THE STAFF REPORT

The Staff Report is a comprehensive response to the FERC's February 13, 2002 Order directing the Staff to gather information on whether any entity, including but not limited to any affiliate or subsidiary of Enron, had manipulated short-term prices for electric energy or natural gas in the West, or otherwise exercised undue influence over wholesale electric prices in the West, since January 1, 2000, resulting in potentially unjust and unreasonable prices in long-term power sales contracts.[7] As an initial matter, Staff is to be commended for performing a gargantuan task and evaluating reams of data. It is evident throughout the Staff Report that the intent was to provide an objective and well-reasoned analysis.

The Staff concluded that there were market manipulations in the electric market, and potentially in the natural gas market. The Staff concluded that published, natural gas delivery-point price data are not sufficiently reliable to be used in the California refund proceeding[8] for purposes of calculating the market mitigation clearing price ("MMCP") and resultant refunds.[9] Therefore, the Staff proposed a substitute methodology as a "proxy."

The Staff recommended that the MMCP should be calculated using producing basin spot prices from *Gas Daily*, plus an allowance for interstate transportation and intrastate distribution costs, plus fuel, based on tariff rates. For southern California, the Staff recommended the average of the

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[7] Fact-Finding Investigation of Potential Manipulation of Electric and Natural Gas Prices, "Order Directing Staff Investigation," 98 FERC ¶ 61,165 (2002).

[8] San Diego Gas & Electric Co., et al., 96 FERC ¶ 61,120, order on reh'g, 97 FERC ¶ 61,275 (2001).

[9] Staff Report at 56-57.

reported San Juan and Permian prices, and for northern California, the Staff recommended the West Coast (Alberta) price. The Staff concluded these prices were superior to Henry Hub prices because while the Henry Hub is the most liquid market in the country, Henry Hub gas is not physically delivered to California.

The Staff also proposed a "backstop" to permit individual parties to seek an adjustment based upon actual gas costs paid to non-affiliates.[10] The Staff reasoned that this would permit parties to recover any costs reasonably associated with scarcity, which is not otherwise accounted for in the calculation of the MMCP.[11]

In addition to the proposed methodology for calculating the MMCP, the Staff made several observations that send mixed signals to the natural gas industry which should be clarified. The Staff stated twice in footnotes "[t]o the extent that the California delivery-point, spot-price data discussed in this report are used in other rate application proceedings before the Commission, the Commission should evaluate the appropriateness of continuing such

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[10] Id. at 74.

[11] Id. at 75. See also note 77, at 64. "We have not attempted to account for the effect of scarcity on price in evaluating possible alternatives to California spot prices. However, as discussed below, we would allow the opportunity to recover actual unaffiliated gas costs, which would operate as a backstop to recover any costs reasonably associated with scarcity."

uses."[12] The Staff also stated that it "makes no conclusions as to whether these reported prices [California delivery point spot prices] are inappropriate for structuring contractual provisions between two sophisticated parties bargaining at arms-length."[13] The NGSA is very concerned that these statements leave the door open for further FERC evaluations that are beyond the scope of the instant proceeding, or that may be taken out of context. It must be clear that the results of this investigation do not become the template for further natural gas or electricity proceedings before the FERC or state agencies.

Yet Staff also notes that its proposed substitute MMCP "is a regulatory solution to a market failure."[14] The Staff recognizes that the basis differential between trading points represents differences in "fundamental supply and demand conditions between points, particularly the scarcity of natural gas due to limited gas transportation to California, and is an important signal for both buyers and sellers."[15] Therefore, Staff appropriately concludes that "under normal circumstances" the basis differential should be preserved.[16] The NGSA requests the Commission to reconcile the tension exhibited by the Staff's observations, as set forth in these comments below.

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[12] Staff Report at 34, note 42, and 61, note 75.
[13] Id. at 57.
[14] Id. at 75.
[15] Id.
[16] Id.

IV.

COMMENTS

A. There Were Numerous Conditions Which Led To High Natural Gas Prices In California Not Related To Manipulation of the Market.

The Energy Information Administration ("EIA") of the Department of Energy issued its "Annual Energy Outlook 2002 with Projects to 2020" report on December 21, 2001, which included a description of the role of natural gas prices in the California energy crisis. The EIA concluded that "the huge disparity between delivered California gas prices and the Henry Hub spot prices can only be explained by supply and demand conditions unique to California."[17] The EIA continued that the principal reason for the skewing of California's natural gas prices was a lack of sufficient pipeline capacity in California, but that temporary constraints on interstate pipelines delivering gas into California also played a role.[18]

Mr. Bruce Henning, Director of Regulatory and Market Analysis for the Energy and Environmental Analysis Inc., on June 19, 2001, testified before the United States Senate Committee on Energy and Natural Resources as to the various, coincidental, causes leading to what has proverbially been referred to as the

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[17] Annual Energy Outlook 2002 with Projections to 2020, Energy Information Administration, Department of Energy, at 8 (Dec. 21, 2001) ("the EIA Report").

[18] Id. at 9.

"perfect storm." This Henning Report is attached to these comments at Attachment A.

Mr. Henning testified that natural gas supply was tight, but that the situation in California was exacerbated by a significant increase in the market value of transportation, i.e., the transportation "basis." Mr. Henning explained that the California gas market reached its point of constraint the summer of 2000. Gas consumption for generation of power increased dramatically. A hot summer caused electric demand to rise, and dry weather the previous winter meant that hydroelectricity was in short supply.[19] This required gas-fired generators to operate more than normal and consume more natural gas. The EEA estimated that gas consumption for electric power generation increased by 87 percent, from 375 Bcf in 1999 to 700 Bcf in 2000 or an average of 890,000 MMBtu/d.[20] Of course, this huge amount of gas was not spread evenly across the year. Further, the state of California, unlike every other western state, refused to raise electric retail rates. This failure to send proper price signals caused the demand for electricity, and thus gas, to be significantly higher than it otherwise would have been.

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[19] See also, Restructured Electricity Markets, California Market Design Enabled Exercise of Market Power, U.S. General Accounting Office (June 2002) ("the GAO Report").

[20] Henning Report at 3.

Moreover, the interstate pipelines serving California were stressed. Transwestern, Kern River, and PG&E Northwest were all running full. El Paso was experiencing bottlenecks and reduced pressure on some lines, and had taken capacity out of service due to a pipeline rupture in Carlsbad, New Mexico on August 19, 2000.[21]

In addition, Southern California Gas Company ("SoCalGas") had insufficient take-away capacity in California at its Topock interconnection with El Paso, and at its Wheeler Ridge interconnection with Kern River, Mojave and PG&E.[22] Thus, SoCalGas was required to allocate its intrastate capacity by reducing receipts from interstate pipelines into its system.

The result of these capacity shortages was that producers' gas that was seeking the California market could not get into that market. The EIA reported that interstate capacity into California exceeded take-away capacity of California's intrastate system by approximately 300 to 590 MMcf/d.[23] Mr. Henning confirmed in his report to the Senate Energy Committee that there was more capacity available to deliver gas to the California

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[21] EIA Report at 9.

[22] Firm shippers complained continuously at the FERC on both Kern River and El Paso that they were experiencing scheduling cuts of their attempts to use firm transportation to deliver gas into California.

[23] EIA Report at 9.

border than there was to move gas to consumers within the state.[24]

At the same time during which the natural gas market was experiencing severe capacity constraints, the shortages in the electric market increased to an even greater degree. The GAO reported this was due to two factors: 1) retail electricity prices were frozen (such that there was no price incentive for conservation); and 2) the CPUC, with few exceptions, prohibited or discouraged long-term contracts between utilities and wholesale suppliers (such that the utilities were unable to hedge and were dependent on the volatile spot market).[25] Thus, the high prices in the natural gas market appear to be the result of well-documented supply and capacity constraints.

Furthermore, as Mr. Henning reports, **it was the electricity market that pulled up the California gas market prices, and not the other way around.** "High electricity prices pushed the entire gas demand curve up, as power generators could still operate profitably despite high gas prices."[26] This suggests that the FERC Staff's assumption that "it is reasonable to conclude that California spot gas prices were driven to high levels by the same

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[24] Henning Report at 3-4.
[25] GAO Report at 5.
[26] Henning Report at 5.

dysfunctions that afflicted the California power market,"[27] is overly simplistic, and in fact, not correct.

In June of this year, as reported above, the GAO Report confirmed Mr. Henning's conclusion. The GAO, while finding that market power was exercised in the California electricity markets, attributed the root causes to the design flaws in the CPUC's regulatory scheme in the electricity market, requiring retail price freezes (shielding the consumer from the laws of supply and demand and increasing demand for both electricity and gas usage beyond where it otherwise would have been), and reliance on the volatile spot market (rather than more stable long-term contracts).

These factors were not reflected in the analysis in the Staff Report; yet, they are crucial in providing a fair assessment of appropriate gas pricing in the electric refund proceeding.

B. A Market Power Analysis Should Be Performed For California Delivery Points Prior To FERC's Rejection Of Market Delivery Point Data As Unreliable.

The FERC Staff concluded that the Henry Hub and NYMEX markets are liquid,[28] and concluded that the California delivery

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[27] Staff Report at 62.

[28] "Henry Hub is the most liquid natural gas market in the country." Staff Report at 35. "Because of the direct linkage between Henry Hub and important delivery points in the Northeast and Midwest, the Henry Hub physicals and NYMEX futures tend to be relatively deep markets that are attractive instruments for many

point data were not "reliable."[29] The Staff concluded, without evidence, that "it is reasonable to conclude that California spot gas prices were driven to high levels by the same dysfunctions that afflicted the California market."[30] But there is no analytical basis for these assumptions. There is no Commission definition of "liquidity" in the Staff Report, nor is there any calculation of market power at the California delivery points.

The Staff Report does not include a market power study or an examination of the number of players/alternatives in the California delivery point market. Rather, the Staff's conclusions were based upon the following "assumptions:" 1) the Commission cannot independently validate the data; 2) there are incentives for market participants to manipulate prices reported to reporting firms; 3) wash trading may have an adverse effect on reported price data; and 4) Enron Online (EOL) was a significant source of price discovery and formation and was "potentially susceptible to manipulation" by market participants.[31]

Before concluding that the California delivery point spot prices are inappropriate for use in calculating the MMCP, the Commission should examine the number of players in the California

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market participants, as these instruments are reasonably correlated with the hedging needs of many individual market participants." Id. at 68.

[29] Id. at 34.

[30] Id. at 62.

[31] Staff Report at 34.

market, under an HHI, or some other quantified measure of market power, during the relevant time period. There should be conclusive evidence, subject to rebuttal and cross-examination, proving that the market prices at the California border were "unreliable" and that they were the result of the abuse of market power, before rejecting those prices for purposes of electric refunds. The Staff Report recognizes that scarcity may have played a role, but there is no measure of that role. Rather, the Staff Report is based on speculation regarding the existence of market power, and not on quantitative analysis measuring market power. Staff's tables clearly demonstrate that the basis differential increased during the 2000-2001 period, but Staff did not perform an analysis to determine the cause of that increase, and whether the markets were competitive at California delivery points.

In the 1996 Policy Statement on alternatives to cost-based natural gas transportation rates, the Commission set forth the analysis under which market-based rates are to be permitted.[32] The analysis is grounded in an HHI measure to determine if an entity can exercise market power. This frame of reference could also be used for determining how gas costs should be measured in the electric refund case. If the market-based California

[32] Alternatives to Traditional Cost of Service Ratemaking for Natural Gas Pipelines, 74 FERC ¶ 61,076 (1996).

delivery point spot prices truly reflected scarcity and the effects of supply and demand, and were not the result of manipulation, then supply and demand should determine the price. The Commission has not performed sufficient, or appropriate, analyses to conclude otherwise.

C. The FERC Should Not Abandon Pro-Competitive Market Principles In The Natural Gas Market.

The above analysis demonstrates that there are many reasons why natural gas prices at the California border were unusually high, in lieu of, and/or in addition to, potential manipulation. In recognition of this, the NGSA offers the following four recommendations.

First, before rejecting market prices at the California border, the Commission should perform an HHI analysis and measure the participants and market shares held by each in that market. The existence of large basis differentials to the California market is not a per se proof of market manipulation. The analysis required to determine whether market-power abuse could have affected gas prices at the California border is complex, but efforts to isolate the effects of market-power abuse were not undertaken.[33]

Second, if there is evidence of market-power abuse by some, then, for those parties not guilty of the abuse, any replacement

[33] Henning Report at 4.

methodology should at a minimum guarantee recognition of actual natural gas costs by those market participants. In the case of affiliated sales where the Commission is wary of actual costs, the Commission should use an average price of similarly situated non-affiliated end-users. It would be grossly unfair to use the arbitrary "proxy" price knowing that it in no way reflected actual market prices simply because the gas was provided by an affiliated marketer/supplier.

Third, the FERC should not impose additional regulation on the natural gas market as a result of the California situation, or utilize the natural gas cost methodology used in this electric refund proceeding for any other purpose. As Mr. Henning pointed out to the Senate, "scarcity rents are necessary to attract capital for infrastructure expansion."[34] The natural gas capacity market has responded to the market signals coming from the California market. The EEA noted almost 3.6 Bcf/d of FERC jurisdictional pipeline construction projects that had occurred as a result, and the California utilities, Sempra and PG&E have announced expansion plans as well.[35] During this period of time, Kern River filed for three capacity expansions.[36] Again, if there was a market failure causing the problems in California, it

[34] Id.

[35] Id. at 5.

[36] The California Action Project at Docket No. CP01-31-000, the 2002 Expansion Project at Docket No. CP01-106-000, and the 2003 Expansion Project, at Docket No. CP01-422-000.

was due to the California electricity regulation, and not regulation of the national natural gas market.

Moreover, if the FERC were to impose additional regulation on downstream wholesale gas markets, it would eliminate incentives for shippers to purchase firm transportation capacity. There needs to be a recognition of the risk/reward balance. Where a shipper pays for firm capacity that is sometimes "out of the money" (i.e., when the basis differential is less than the regulated transportation rates), there should be the ability to recover those costs when the capacity is "in the money" (i.e., when the basis differential exceeds the regulated transportation rates).

As an example, the El Paso firm transportation rate to the California border has been "out of the money" at almost all times since the expansion of the PGT (now PG&E-Northwest) pipeline in 1993. The potential of price spikes can justify a company or utility expending millions of dollars long-term for firm transportation that will be below market during most time periods. If there will never be a day where the transportation will be allowed to be "in the money," pipeline customers will be less likely to execute long-term transportation contracts. Thus, expansion of the nation's pipeline system could be impacted.

Finally, the FERC should continue its proactive investigations and penalize market players who have exercised market power and/or ignored the FERC's regulations. This sends an important signal to the natural gas industry that the regulators will not tolerate illegal activity.

Respectfully submitted,

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ATTACHMENT A

Before the United Sates Senate Committee
on Energy and Natural Resources

Tuesday, June 19, 2001

Statement of
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Introduction

Good morning. My name is Bruce Henning. I am Director, Regulatory and Market Analysis at Energy and Environmental Analysis, Inc. EEA is a privately owned consulting firm that provides analysis to institutional, governmental, and private sector clients in the area of natural gas, electricity, and transportation and related environmental issues and policy. For the past 24 years, I have been an analyst of natural gas and energy markets. Along with my colleagues at EEA, I have conducted a number of comprehensive analyses of the North American natural gas markets and energy infrastructure requirements. EEA provided the quantitative analytic support for the 1999 National Petroleum Council study, *Natural Gas: Meeting the Challenges of the Nation's Growing Natural Gas Demand.* EEA also authored the INGAA Foundation study, *Pipeline and Storage Infrastructure Requirements for a 30 TCF Gas Market,* and performs the forecast and market analysis for the *GTI* (formerly Gas Research Institute) *Baseline Projection*. In addition, we have performed a large number of natural gas market analyses for private sector clients from all sectors of the energy industry including local natural gas distribution companies, natural gas producers, interstate natural gas pipeline companies, energy marketers, regulated electric utilities and independent power generation companies.

I am here today to discuss the natural gas market in California and to relate the California market to the recent behavior in the entire North American gas market. The views that I express are my own and do not reflect the views and positions of any of EEA's clients.

Background and Structure of the Natural Gas Market

Over the past two decades, the structure of the natural gas market has changed from a market that relied almost exclusively upon price regulation to a market where prices are determined by the balance of supply and demand subject to the regulatory oversight of the Federal Energy Regulatory Commission (FERC). Over that period, U.S. consumers benefited greatly in terms of declining real natural gas prices. From 1983 though 1999, the average price of gas delivered to all consumers fell by almost 50 percent in real terms. Even with the run-up in prices that occurred in 2000, the average consumer price was more than 34 percent below the average price in 1983. (see Exhibit 1).

That being said, natural gas prices in the California market experienced an unprecedented increase beginning in April of 2000. The increase reflected two distinct components. The first component reflected the price increases that were occurring across the U.S. because of an overall tightness in the market. Gas producers were producing all that they could. There was virtually no excess deliverability and production capacity utilization approached 100 percent. Since the gas price was already above oil product prices, dual-fueled customers had already switched to their alternative fuel, generally oil. As cold weather arrived in November and December, the market required customers that did not have a readily available alternative fuel source to reduce their gas consumption. The market was brought into balance via this difficult load shedding. EEA estimates that more than 6 billion cubic feet a day out of a potential gas load of 98 billion cubic feet was shed as a result of the price increases. In short, although it was very painful to consumers throughout the country, gas market prices performed as economists expect, allocating a commodity during periods of scarcity to those customers that value it most. Moreover, the high prices also fulfilled their role by sending the price signals to producers, resulting in a dramatic increase in gas drilling activity that is increasing deliverability and contributing to the recent moderation in wellhead prices.

The California Gas Market

But in addition to the general tightness in the supply/demand balance, California prices were also affected by a significant increase in the transportation basis. The transportation basis is the market "value" of transportation capacity available to move natural gas from one market to another. When excess capacity is available, the market "value" for pipeline capacity is generally far below its maximum regulated rate. As the gas throughput increases and approaches the capacity of the pipe, the "value" of transportation increases. In a capacity-constrained market, the "value" of transportation can significantly exceed the maximum regulated rate. This happened in California, but it has happened for shorter periods of time in other markets, such as New York and the Northeast last December. In California, however, the condition has persisted for much of the last year.

The maximum regulated rate is a measure of the "cost" of transportation service on an annual or long-term basis. Since the market "value" of transportation is often below the "cost" of transportation, it must also be above the regulated rate at times. If it is not, the market value of the pipeline capacity is less than the costs. When market value is less than cost, no additional expansion of capacity is made. New capacity is proposed only when investors see or anticipate that the market "value" of capacity exceeds its cost.

The California gas market reached its point of constraint last summer. Gas consumption for power generation increased dramatically. Low hydroelectric availability in the Pacific Northwest and high electricity demand throughout the entire western part of the United States required that gas-fired generators in California operate far more hours than normally expected. EEA estimates that power generation using natural gas in California in 2000 was 42 percent higher than the 1999 level. Moreover, the units that were running were often older and inefficient peaking units. As a result, the amount of gas being consumed for generation experienced even greater amounts of growth than the overall growth in kilowatt hours of electricity generated from natural gas. EEA estimates that California power generation gas consumption rose by 87 percent, from 375 billion cubic feet in 1999 to 700 billion cubic feet in 2000.

I believe this growth in consumption unmasked an intrastate capacity constraint. In short, there was more capacity available to bring gas to the state border than there was to move gas to the consumers in the state. The total amount of intrastate capacity available was insufficient to satisfy the demand. Power generation customers bid against each other for the scarce supply. Moreover, because of the extreme conditions in the electricity market with very high prices, generators - who are usually extremely sensitive to fuel prices - were willing to pay dearly for any supply available. The result was the extremely high basis value.

The fact that the capacity constraint was inside the state is a subtle, but important point. Trade publications, which are widely used for price discovery in the gas industry, were reporting very high gas prices at the California border delivery points. Industry analysts initially concluded that the constraints must have existed on the interstate pipeline system. However, pipeline web sites that are required by FERC to show operationally available capacity indicated that some interstate capacity to the California border had no takers. This raised concern that market participants were withholding capacity and exercising market power. The reality was that there is insufficient "takeaway" capacity to increase the deliveries from the pipelines to their capacity limit. The prices being reported at the border reflected the "value" of the scarce intrastate capacity minus the state regulated cost of distribution.

Scarcity Rents vs. Market Power Rents

In economic terms, a rent is the market value of a product in excess of its costs. In and of themselves, rents are not a dispositive indicator of an exercise of market power. The existence of very large basis differentials to the California market is not proof of market manipulation. The legal and economic analysis required to differentiate between scarcity rents and market power rents is complex, and at this time I am not prepared to reach a conclusion. It is this very analysis that is being conducted by the FERC and, in my opinion, that is the appropriate venue for the inquiry. I have confidence in the ability of the agency to fulfill its statutory authority.

As discussed earlier, in a market where prices can often be below costs, scarcity rents are necessary to attract capital for infrastructure expansion. Any attempt to limit the scarcity rent runs the risk of eliminating the price signals needed to attract the investments required to alleviate the infrastructure constraints.

Response of the Market to Price Signals from the California Market

The marketplace is responding to the market signals coming from the California market. A number of projects have been announced that will increase the pipeline capacity to the state and - more importantly - inside the state. In our recent monthly review, EEA identifies almost 3.6 billion cubic feet per day of FERC jurisdictional projects and both Sempra and PG&E have announced plans to expand their systems as well. Ironically, EEA believes that construction of all of these projects and a return of "normal" rainfall to the Pacific Northwest would result in the return of California to a market with "excess gas transportation capacity" and discounted rates.

Market Data Collection

Part of the legislation being considered would require collection of copious amounts of data regarding gas transactions in the California market. FERC is already proposing to collect data similar to that required by the legislation. In this effort, FERC is considering a comprehensive collection effort based upon the agency's extensive expertise in examining natural gas markets. Within this process, all interested parties have the opportunity to comment on the proposed data collection proposal. With this input FERC is capable of identifying any market manipulation and has the authority to promulgate and enforce any required remedy.

Price Caps and Resource Allocation

From my perspective, the natural gas market is far more mature and competitive than the electricity market in virtually every region of the country including California. As such, I would like to draw several distinctions between price cap proposals for the gas market and the electricity market. First, the electricity market in California was responsible for pulling the California gas market prices up, not the other way around. High electricity prices pushed the entire gas demand curve up, as power generators could still operate profitably despite high gas prices.

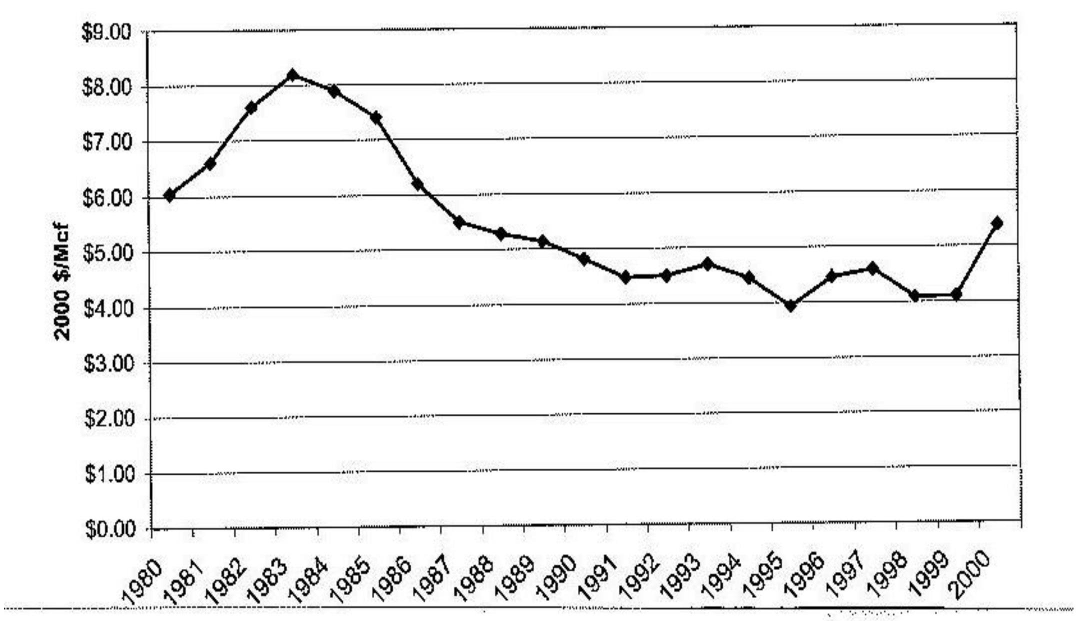
Second, prices in the California natural gas market acted to allocate the incremental supply of natural gas in the state. If price caps are placed on the gas market, regulators will be forced into the position of deciding which customers will get the gas that they want and which customers won't. There is really no getting around that reality.

Finally, if price caps are imposed in the gas market, they run the risk of delaying the infrastructure needed to serve the gas requirements of the state.

Conclusion

I'd like to thank the committee for the opportunity to express my views and I would be happy to answer any question that I can.

Exhibit 1: Average Real Price of Natural Gas
Delivered to Consumers in the US.
- 2000$ per Thousand Cubic Feet (MCF)-



Source: Calculated from data published by the DOE Energy Information Administration in various issues of the *Monthly Energy Review* and *Natural Gas Monthly*

CERTIFICATE OF SERVICE

Pursuant to Rule 2010 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.2010, I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C. this 15^{th} day of October, 2002.

/s/ Patricia W. Jagtiani
Vice President of
Regulatory Affairs
Natural Gas Supply Association
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Suite 510
Washington, DC 20005
(202) 326-9300, ext. 120