UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Gas Transmission Northwest Corporation)　　　Docket No. RP06- -000

Prepared Direct Testimony of Barry E. Sullivan

Q: Please state your name and business address.

A: My name is Barry E. Sullivan. My business address is 1155 15th Street, N.W., Washington, D.C., 20005.

Q: Would you state your present occupation?

A: I am currently President of Brown, Williams, Moorhead & Quinn, Inc., an energy consulting firm with offices in Washington, D.C., and Houston, Texas.

Q: What is the nature of the work performed by your firm?

A: We provide technical and/or policy assistance to the various segments of the natural gas pipeline industry, oil pipeline industry, and electric utility industry on business and regulatory matters.

Q: Please briefly state your professional experience and qualifications.

A: My personal vitae, which is attached as Appendix A (Exhibit No. GTN-78), details my experience since my employment at the Federal Energy Regulatory Commission ("FERC" or "Commission") in 1979. I was a Supervisor in the Office of Administrative Litigation at the time I left the FERC in September 2005. As a

Supervisor in the Office of Administrative Litigation, I supervised and directed a significant number of the natural gas pipeline, oil pipeline, and electric utility proceedings that were set for formal hearing proceedings at the Commission. I also supervised and directed the preparation and presentation of the Commission technical Trial Staff's settlement and testimony positions on a wide range of issues in these formal proceedings. These issues included: the Enron and the Western Market investigation, formal market power studies; market-based rates; cost classification; cost allocation; rate design; seasonal rates; distance-based rates; separation of services (unbundling); discounting; capacity release; capacity assignments; interruptible transportation rates; storage rate design; refunctionalization studies; stranded costs; restructuring issues; incremental versus rolled-in rates; depreciation and negative salvage costs; cost-of-service and rate base issues; oil pipeline rates; tariffs and operational issues; and the resolution of contract disputes.

In addition, I have testified as an expert witness on market power and market-based rates, cost classification, cost allocation, rate design, billing determinants, depreciation, and other rate-related issues in numerous natural gas rate proceedings, oil pipeline proceedings, and electric proceedings. A list of the cases that I supervised while at the Commission is attached as Attachment A (Exhibit No. GTN-78). A list of the cases in which I provided testimony and/or testified is attached as Attachment B (Exhibit No. GTN-78).

Q: Would you briefly state your educational background?

A: I graduated from the University of Massachusetts at Boston with a BA degree in economics. I also completed a one-year program in graduate economics at the University of York, England.

Q: What is the purpose of your testimony?

A: Gas Transmission Northwest Corporation ("GTN") asked me to review its proposal to implement market-based rates for interruptible transportation ("IT") service to GTN's California destination market to assess whether the proposal is consistent with the FERC's current regulatory goals and policies.

Q: What did you conclude?

A: I conclude that the proposal is fully consistent with the FERC's policies and goals and is in the public interest.

Q: What is the essential purpose of the Commission's regulations concerning cost-based rate regulation of natural gas pipeline company transportation services?

A: The essential purpose of the Commission's cost-based rate regulation over interstate natural gas pipeline transportation services is to protect captive consumers from the assumed monopoly power of pipelines and to provide captive consumers with the lowest reasonable rate commensurate with the pipelines' ability to provide adequate service. At the same time, regulation must allow pipeline companies a reasonable opportunity to recover their cost-of-service. The Commission has found that when competition is sufficient, such that a pipeline cannot exercise market power, the Commission can rely on competition to produce rates that are just and reasonable.

Q: What Commission goals and policies have you analyzed in reviewing GTN's application for market-based rates for interruptible transportation service?

A: I have reviewed the evolution of the Commission's policies regarding market-based rates for interstate natural gas transportation services and interstate natural gas storage services. The most important Commission Orders are the Policy Statement on Alternatives to Traditional Cost-of-Service Ratemaking ("Policy Statement") and several cases addressing market-based rates for transportation service, which I discuss later in my testimony. *See Policy Statement 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*, Docket Nos. RM95-6-000 and RM96-7-000, January 31, 1996, 74 FERC ¶ 61,076 ("Policy Statement").

Q: Please explain the evolution of the Commission's policies regarding alternatives to cost-based rates?

A: Commission policy has long encouraged the evolution of competitive, efficient markets and market-based rate principles in natural gas markets versus traditional regulation and cost-based rates. The Commission over the past 20 years has focused on increasing competition and creating viable competitive markets in the natural gas pipeline industry, beginning with the issuance of Order No. 436, followed by Order No. 636, the Policy Statement, Order No. 637, and the proposed Storage NOPR in Docket No. RM05-23, which seeks to provide increased opportunities for interstate storage facilities to obtain market-based rate approval.

The Commission has approved market-based rates for a large number of natural gas storage companies. Most importantly, the Commission has also permitted two natural gas transmission pipeline companies to charge market-based rates for transportation service. I discuss the two natural gas pipeline companies that received Commission approved market-based rate authority later in my testimony.

Q: Please provide a brief history of the Commission decisions that have implemented competitive market principles in the natural gas pipeline industry and the evolution of market-based rates.

A: In 1985, the Commission set the foundation for the open-access, competitive interstate natural gas pipeline transportation system that we have today by issuing Order No. 436. Order No. 436 authorized natural gas pipelines to transport natural gas for other shippers in a not unduly discriminatory manner. Local distribution companies were then allowed to contract and purchase their own natural gas supplies and transport those supplies on an open-access natural gas pipeline. Previously, the local distribution company was required to purchase its gas supply from the interstate pipeline company. The effect of Order No. 436 was to open up the interstate pipeline grid, creating competition among pipelines, and, perhaps more importantly, creating a more efficient and dynamic natural gas supply market. With regard to competition among gas suppliers, producers and marketers almost immediately began to complain that the policies implemented by pipelines favored the transportation of pipeline-owned supplies over the transportation of third-party supplies. Interstate pipelines were still selling a bundled gas transportation and sales service that some customers believed favored the transportation of the pipelines' own gas supplies. Concerns about whether consumers were able to access gas supplies on even terms eventually led to the issuance of Order No. 636 in 1992.

Q: What was the goal of the Commission in issuing Order No. 636?

A: The Commission stated that its goal in issuing Order No. 636 was to create a national gas market in which consumers and producers could meet anywhere on the pipeline grid to transact most efficiently. To that end, the Commission stated that, for an efficient national gas market to develop, transportation must be on even terms and the true cost of transportation must be reflected in the delivered cost of gas. To achieve its goal, the Commission, among other things, required pipelines to eliminate bundled sales service and to allow customers to convert their sales entitlements to transportation entitlements. Pipelines were also required to use the straight-fixed-variable method of designing rates. These elements were required, the Commission stated, to ensure that customers enjoyed equal access to natural gas supplies anywhere on the national pipeline grid.

Q: When did the Commission issue its Policy Statement?

A: The Commission issued its Request for Comments on Alternative Pricing Methods on February 8, 1995, and the actual Policy Statement on January 31, 1996. In the Policy Statement, the Commission stated that it would allow natural gas pipeline companies to charge market-based rates for transportation services if the pipeline could demonstrate that it did not have market power over transportation rates.

Q: What was the next major Commission step in moving to more efficient market-pricing signals for natural gas pipeline transportation markets?

A: The Commission issued Order No. 637 in 2000. In Order No. 637, the Commission approved the concept of using peak/off-peak, or seasonal, rates for pipeline services to improve efficiency in the marketplace by tailoring regulation to account for seasonal demand for capacity, while at the same time protecting and benefiting long-term captive customers (*see* III FERC Stats. & Regs. Regulations Preambles ¶ 31,091 at 31,287). The Commission permitted pipelines to institute peak/off-peak rates for all short-term services, *i.e.*, short-term firm and interruptible service and multi-year seasonal contracts, as one possible method of promoting allocative efficiency that was consistent with the goal of protecting customers from the exercise of marker power.

The Commission stated that peak/off-peak rates could allow pipelines to increase revenue recovery from peak period, short-term shippers. Such increased cost recovery from peak short-term services lessens the level of costs that need to be recovered from long-term customers and minimizes the cost shifting that occurs with off-peak discounting. By reducing the rates in the off-peak periods, peak/off-peak rates could reduce the need for discounts and reliance on discount adjustments. The Commission also stated that peak/off-peak rates could better reflect the value of capacity during peak and off-peak periods, again reducing the need for discount adjustments.

The Commission did not extend this new policy to long-term firm contracts with terms of twelve consecutive months or more of service. However, long-term customers were allowed to choose peak/off-peak rates as a billing adjustment.

Q: Has the Commission allowed market-based rates for natural gas storage projects?

A: Yes. Since 1996, the Commission has handled over 40 storage cases, in which storage service providers sought market-based rates. In the majority of these cases, FERC determined that the applicant lacked significant market power and thus FERC granted authorization to charge market-based rates for storage services. On December 22, 2005, the Commission issued the Storage NOPR and proposed to establish less stringent criteria for storage operators to obtain authority to charge market-based rates for storage service. The first proposed modification to the market power test is to broaden the scope of alternative services permitted to be considered as close substitutes to storage in defining the relevant product market. The second modification, pursuant to section 312 of the EPAct of 2005, creates a new section 4(f) of the NGA. This new section of the NGA would permit underground natural gas storage operators to negotiate market-based rates in circumstances where it is in the public interest and necessary to encourage the construction of the storage capacity – notwithstanding the fact that the applicant cannot demonstrate that it lacks market power. Under this provision, however, the Commission must determine that customers are adequately protected. On June 19, 2006, the Commission issued its Final Rule adopting the proposal to broaden the scope of alternatives permitted to be considered as close substitutes to storage as well as the proposal to allow storage providers to charge market-based rates in certain circumstances even though the provider cannot demonstrate that it lacks market power.

Q: What is the current Commission policy on market-based rates for natural gas pipeline companies?

A: The Commission first established the policy on market-based rates for natural gas pipeline companies in its Policy Statement and further revised the policy in *Koch Gateway* in Docket No. RP95-362, 85 FERC ¶ 61,013. In the Policy Statement, the Commission explained that if a natural gas company can establish that it lacks significant market power, then market-based rates are a permissible, viable option for achieving the flexibility and added efficiency required by the current marketplace. The Commission emphasized that a pipeline company cannot make one group of customers subsidize another unless it has market power over the group that would pay the higher rates. If a pipeline has market power over a service, then the Commission cannot permit it to charge market-based rates for that service. The Commission stated that it will carefully scrutinize affiliate relationships and generally take special precautions (and impose special rules) where affiliates are involved. The Commission has stated that normal market controls will not work with affiliate transactions (*see El Paso*, 105 FERC ¶ 61,201).

Q: What is the Commission's market power test for natural gas pipeline companies?

A: The Commission's Market Power Framework is based on Department of Justice ("DOJ") and Federal Trade Commission ("FTC") Horizontal Merger Guidelines issued

April 2, 1992, and revised on April 8, 1997. The Commission policy was formally stated in the Policy Statement (74 FERC ¶ 61,076 (1995) and 75 FERC ¶ 61,024 (1996)). In the Policy Statement, the Commission set forth the criteria a pipeline must meet in order to charge market-based rates. The pipeline is required to show that it lacks significant market power in the relevant markets. Market power is defined as "the ability of a pipeline to profitably maintain prices above competitive levels for a significant period of time." The applicant can prove it lacks market power by showing that customers have sufficient good alternatives to the service(s) in question. A "good alternative" is an alternative that is "available soon enough, has a price that is low enough, and has a quality high enough to permit customers to substitute the alternative for the applicant's service." In practical terms, the Policy Statement defines good alternatives as substitute products with the required availability, price, and quality that are offered by sellers within a geographic area consisting of a path between origin and destination markets, an origin market, or a destination market.

When identifying good alternatives, the applicant must analyze itself in relation to those good alternatives by calculating its market share and the market concentration in each path, origin, and destination market. These calculations must be based on sales or capacity figures associated with good alternatives. In addition, the Commission will also consider other factors that have a bearing on the exercise of market power such as ease of entry and buyer power. The Policy Statement contains detailed requirements for a good alternative and for the market analyses.

Q: What standard did the Commission adopt to define market concentration?

A: The Commission adopted the standards used by the DOJ and FTC, both of which use the Herfindahl-Hirschman Index ("HHI") to measure market share. The HHI defines market concentration by summing the squared market share of each market participant. Under the HHI analysis, 10,000 would represent one company with total market power, while an index of 1,000 could represent 10 companies, each with 10 percent market shares. The Commission explained that an HHI of 1,800 would indicate a market that is less concentrated, while an index greater than 1,800 requires more scrutiny.

Q: Has the Commission authorized any natural gas pipeline to charge market-based rates for transportation service?

A: Yes. In *K N Interstate Gas Transmission Co*., 76 FERC ¶ 61,134 (1996), the Commission authorized K N Interstate to charge market-based rates for firm and interruptible transportation service to K N Interstate's "passthrough customers" using K N Interstate's "Buffalo Wallow System." The authorization extended to K N Interstate's services using its 100-mile, 235 MMcf per day, transportation-only (no storage) Buffalo Wallow System in Texas and Oklahoma. K N Interstate's "passthrough customers" were shippers of gas not produced, distributed, or consumed in the area of the Buffalo Wallow System. The Commission found that K N Interstate had reasonably defined the product market, firm and interruptible transportation on interstate, intrastate, and gathering systems, as well as the geographic market. The Commission also found that there was competitive, alternative transportation capacity available to shippers to an extent that "would exert price discipline on K N Interstate's Buffalo Wallow market-based services." K N Interstate's market share and its HHI fell within the guidelines even after the Commission excluded neighboring transportation systems that did not offer firm service. Furthermore, K N Interstate's competitors could expand their capacity reasonably cheaply. As a result, the Commission concluded that "[a]ll the evidence in this proceeding strongly argues against any concern that K N Interstate can withhold service to obtain a substantial price increase." 76 FERC at 61,719. The Commission noted that "the Buffalo Wallow System is not a system that has a heavy demand for services." *Id.*

On rehearing, the Commission clarified that K N Interstate must offer several mitigation options to shippers that distributed or consumed gas in the area or with wells or processing plants connected to the Buffalo Wallow System (the "directly-connected customers") and that the authority to set market-based rates by negotiation extended only to transportation rates and not to terms and conditions of service. 77 FERC ¶ 61,256. On January 14, 1998, the Commission accepted and suspended K N Interstate's proposed tariff sheets to effectuate market-based rates on Buffalo Wallow. Changed circumstances, specifically K N Interstate's acquisition of Natural Gas Pipeline Company of America, prompted the Commission to require K N Interstate to submit an explanation of why the acquisition would not affect the competitive situation that was the basis for the Commission's grant of market-based rate authority. 82 FERC ¶ 61,009. Ultimately, K N Interstate withdrew its market-based rate filing.

More recently, on July 27, 2005, in *Rendezvous Gas Services, L.L.C.*, 112 FERC ¶ 61,141 at 61,792-94 PP. 26-40 (2005), the Commission again authorized market-based rates for pipeline transportation service. The Commission did so even though the market power analysis in that case resulted in an HHI of 2,062, materially above the 1,800 threshold for market power. The Commission found countervailing factors that would blunt any attempt by the applicant to exercise market power. Dr. Carpenter's market power analysis for full-haul IT service from Kingsgate to Malin yielded an HHI beneath the 1,800 threshold. As such, GTN's request to charge market-based rates meets the Commission's standard without relying on the mitigating factors that were both necessary and determinative in *Rendezvous*.

Q: Please provide a summary of the *Koch Gateway ("Koch")* market power proceeding in Docket No. RP95-362.

A: The *Koch* proceeding went through a full evidentiary hearing at the Commission and I was one of the witnesses for the Commission litigation staff. The central question addressed in *Koch* was whether *Koch* had the ability to exercise market power over its origin and destination markets for firm and interruptible transportation services.

Q: Please summarize the major points in the Commission order that denied *Koch* the ability to charge market-based rates.

A: The Commission principally found *Koch's* market power analyses were flawed because *Koch* assumed that identified, unconnected pipelines within five miles of the *Koch* pipeline were good alternatives to *Koch's* services and ascribed market shares to those unconnected pipelines. The Commission found that *Koch* failed to show that capacity was available on those pipelines, that it was economical to connect to those pipelines, or that comparable service was available at prices comparable to *Koch's* rates on those pipelines. Consequently, *Koch* failed to show that the unconnected pipelines were good alternatives to *Koch's* services, and no market share could properly be ascribed to those alternative pipelines. As such, the Commission found no evidentiary value in the market share and market concentration analyses (the HHI studies) that *Koch* proffered.

In addition, *Koch* did not calculate HHIs for individual end-use customers, suppliers, or for individual Station Location Numbers ("SLNs"). The Commission held that the pipeline must demonstrate that there are adequate substitutes at each individual receipt and delivery point to prove that there are good alternatives and that it lacks market power. The requirement to analyze individual SLNs applies to *Koch* as well as to other pipelines because the Commission wants to ensure that the individual customer at an SLN has good alternatives to ensure that a pipeline cannot exercise market power. *Koch* made no showing that HHI indices were low for individual SLNs, and therefore its market analysis was rejected by the Commission as deficient. Accordingly, the Commission held that *Koch* did not show through its market power analyses that it lacked the ability to exercise market power.

Despite the inadequacies of the market study in *Koch*, the implication of the Commission's Order is that market-based rates would be available to a pipeline that filed a more comprehensive market power study. Dr. Carpenter's market power study addresses the concerns expressed in the *Koch* Order by (1) analyzing the Kingsgate receipt point and the Malin delivery point specifically as part of his market power analysis of GTN's full-haul IT service between those two points; and (2) demonstrating that there are more than adequate good alternatives to GTN's full-haul IT service from Kingsgate to Malin.

Q: Why is the existence of good alternatives so important to the Commission?

A: The Commission's Policy Statement requires that an applicant demonstrate that there are good alternatives to the applicant's transportation services by showing that these alternatives would be available soon enough, have a price that is low enough, and have a quality that is high enough to permit customers to use them as substitutes.

The Policy Statement further requires that a good alternative be low enough in price to give the producer/shipper a netback at least as large as it would receive if it used the applicant's transportation service. The proposed good alternatives must have a price that is low enough to permit customers to use them as substitutes, and the pipeline must show that the price for available capacity on the proposed good alternatives is low enough to effectively restrain the applicant from increasing prices. The Policy Statement adopts a pricing threshold of ten percent, *i.e.*, the price level on an alternative pipeline must be at or below the applicant's approved maximum cost-based rate plus ten percent. The Commission did not adopt a set period of time over which a price increase must be sustained to be considered significant, but stressed the importance of the availability of capacity during the peak winter period.

Q: You have reviewed the testimony and exhibits of GTN witness Dr. Paul R. Carpenter from The Brattle Group?

A: Yes. I have.

Q: Do you agree that Dr. Carpenter has properly followed the requirements and guiding principles from the Commission's Policy Statement and the Commission orders in performing his test of whether full-haul IT service on GTN qualifies for market-based rate treatment at its Malin, Oregon, delivery point?

A: Yes. I have read and reviewed the testimony and exhibits of Dr. Carpenter and conclude that he has properly reflected current Commission policy, as elucidated in the Policy Statement and other Commission Orders addressing market-based rates, in determining that the Commission can properly approve GTN's application to charge market-based rates for IT service from Kingsgate to Malin, Oregon.

Q: What is the basis for your conclusion?

A: I carefully reviewed Dr. Carpenter's study in light of the Commission's stated market-based rate policy and, in particular: (a) the definition of relevant product and geographic markets (origin and destination); (b) market concentration measures (HHI); and (c) whether there are good alternatives to GTN's current IT service. I conclude that Dr. Carpenter has correctly applied the Commission's market-power criteria in conducting his market-power study, which determined that GTN lacks market power over full-haul IT service from Kingsgate to Malin, and thus the Commission can safely approve GTN's request to charge market-based rates for such service. Dr. Carpenter correctly defined the relevant product market as the provision of IT service on peak and off-peak periods from the Kingsgate receipt point at the U.S./Canadian border to its Malin delivery point at the Oregon/California border. Just as importantly, GTN is not filing for authority to charge market-based rates for IT services at any other delivery points on its system. After careful consideration, GTN has determined that customers at these other receipt and delivery points do not have the same quality of good alternatives available to them. GTN will continue to provide all other customers (at all other delivery points) with IT service at a capped cost-based IT tariff rate.

Q: Do you believe that Dr. Carpenter's definition of the potential alternatives to GTN's full-haul IT service meets the Commission's market-based rates criteria?

A: Yes. Dr. Carpenter properly accounted for the good alternatives in both the origin market and the destination market according to the Commission's stated market-based rates policy. In the California destination market, Dr. Carpenter includes natural gas deliveries that are available from other suppliers on short notice. These include spot gas supplies made available by other holders of pipeline capacity, IT service on other pipelines serving the destination market, released pipeline capacity that is made available in the capacity release and secondary capacity markets, and storage withdrawals. All are good alternatives. In the WCSB origin market, Dr. Carpenter includes capacity made available on the secondary market through capacity assignment (release) by other holders, IT capacity on other pipelines serving the origin market, and storage injection available in the market on short notice. Dr. Carpenter satisfies the Commission's policy statement by demonstrating that these alternative services exist today, and that there is surplus capacity for these services that would be immediately available to the market if GTN attempted to withhold IT capacity.

Q: Has the Commission recently stated that storage services compete directly with transportation services and may be considered good alternatives to transportation services, such as IT and capacity release?

A: Yes. The Storage NOPR (113 FERC ¶ 61,306), recently promulgated into the Final Rule (Order No. 678), provides examples of relevant pipeline transportation services that compete with storage services. The Commission believes it appropriate to adopt a more expansive definition of the relevant product market for storage to explicitly include close substitutes, such as available pipeline capacity and local gas production or LNG terminals. In fact, the Commission specifically focused on the California market:

> Take, for example, the California downstream market. Capacity held on Transwestern Pipeline Company, LLC (Transwestern) and El Paso Natural Gas Company (El Paso) could compete with a storage project located in a market upstream of California if California customers of these pipelines can buy gas from other sources in the downstream markets. This could free upstream capacity to compete with the upstream storage project. For example, Pacific Gas & Electric Company (PG&E) could buy gas from PG&E Gas Transmission, Northwest Corporation (PGT), Kern River Gas Transmission Company, an electricity generator in the California market, withdraw from its own storage, or purchase local production or regasified LNG to serve its captive or core customers. As a result, PG&E would be able to either release a portion of its firm capacity on El Paso, or nominate a secondary delivery at an upstream point to sell gas in the upstream market. As indicated above, whether capacity release in a given market would qualify as a close substitute under the Policy Statement would be determined on the facts of a given case.
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> Thus, based upon a proper showing, the Commission believes it would be appropriate for a storage applicant to include pipeline capacity that is used to serve captive customers if it is demonstrated that there are reasonable substitutes in the downstream market for serving load that would free up capacity in the upstream market that would compete with the storage project. (113 FERC ¶ 32,595 at 32,355).

Q: Do you agree that the Commission appears to be broadening its definition of alternative products to storage services to include pipeline capacity and local production/LNG supply?

A: Yes, the Commission is clearly focused on the competitive realities of today's natural gas markets and understands that available pipeline capacity, capacity release, local production, and storage services are all competing services that offer good alternative products in today's downstream California natural gas markets. The Commission has acknowledged that there is gas-on-gas interstate pipeline competition to California markets for the capacity release market and excess pipeline capacity, in-state California storage competition, LNG competition, in-state California natural gas production, and in-state California pipeline capacity.

Q: Has Dr. Carpenter used storage services as a good substitute in determining his origin and destination market share and market concentration measurements (HHI)?

A: Yes. Dr. Carpenter has included WCSB storage in his origin market and California storage in his destination market analysis. Dr. Carpenter has conservatively imputed all third-party storage contracts to the owner of the storage facilities' market share. This is a very conservative assumption given that these third-party contracts could have been separately stated with individual market shares for each third-party contract holder. Use of individual market shares for each third-party storage contract holder would have resulted in even less concentrated market shares and lower HHI statistics than Dr. Carpenter calculated.

Q: How has Dr. Carpenter addressed the Commission's special concerns when affiliate relationships are present in a market-power study?

A: Dr. Carpenter has strictly followed the Commission policy of including all affiliate relationships in the same market share. Because TransCanada owns GTN, all capacity held by affiliated companies of TransCanada was aggregated in the name of TransCanada in Dr. Carpenter's study. All storage injection capacity in the WCSB controlled by TransCanada, all pipeline capacity out of the WCSB that is held by an affiliate of TransCanada, and unsubscribed capacity on a pipeline owned by TransCanada, were aggregated under TransCanada for the purposes of computing market shares and HHI statistics in the origin market. Dr. Carpenter clearly took a very conservative approach by including all of the TransCanada capacity and GTN capacity in one market share, given that numerous third parties contract for market shares on these TransCanada affiliates. This more than satisfies the Commission policy that all affiliate relationships be carefully scrutinized.

Q: In *Koch*, the Commission rejected market-based rates for firm and interruptible transportation services at *Koch's* 1,465 receipt and delivery points (SLNs). Please explain how Dr. Carpenter has met the *Koch* criteria, which places the burden of proof on the pipeline to demonstrate that good alternatives are available that prevent the pipeline from exercising market power at each receipt and delivery point?

A: GTN is only asking for market-based rate authority for full-haul IT transportation from one receipt point, at the International Boundary near Kingsgate, British Columbia, to one delivery point at Malin, Oregon. This is a much more limited market-based rates proposal than was sought by *Koch* in 1996. As documented in Dr. Carpenter's testimony, GTN has met the burden of proof as set forth in *Koch* by providing clear and convincing evidence that GTN does not have market power over its full-haul IT service to Malin, Oregon. Dr. Carpenter demonstrates that: (a) there are good alternatives to GTN's full-haul IT service in the relevant origin market and relevant delivery market; (b) that good alternatives to GTN's full-haul IT service have been available to shippers/producers during the period January 2005 to February 2006, even during peak demand periods; and (c) that the liquidity and flexibility of the Nova Inventory Transfer service in the WCSB and the good alternatives available in the origin market prohibit GTN from lowering shipper/producer netbacks. Dr. Carpenter presents the results of his destination market analysis in the HHI statistics in Tables 1 and 2 of his direct testimony. These Tables are based on the detailed HHI calculations contained in Dr. Carpenter's Exhibit Nos. GTN-65 and GTN-66, which show market share statistics for 47 destination market participants. Dr. Carpenter's summary HHI statistics (1,091 and 1,052) are well below the Commission's stated level of concern regarding market concentration (1,800), indicating that the destination market is competitive.

Dr. Carpenter presents the results of his origin market analysis in the HHI statistics in Tables 6, 7, 8, 9, and 10 of his direct testimony. These Tables are based on the detailed HHI calculations contained in Exhibit Nos. GTN-69, GTN-70, GTN-71, GTN-72 and GTN-73, which show market share statistics for 83 origin market participants. Dr. Carpenter's summary HHI statistic for Table 6 is 1,690. The analysis reported in Table 6 shows that all routes out of the WCSB, including Alberta storage injection, are economic alternatives to GTN's full-haul IT service except the WestCoast pipeline route to Sumas, Washington. An HHI of 1,690 is below the Commission's stated level of concern regarding market concentration of 1,800. This indicates that the origin market of WCSB is competitive.

Dr. Carpenter also provides sensitivity results for a different path or netback assumption that eliminates TransCanada's Mainline from the HHI analysis in Table 7 and calculates an HHI statistic of 1,514 which is below the Commission threshold level of concern. In Tables 8, 9 and 10, Dr. Carpenter even provides the unrealistic scenarios that one would have to assume in order to get HHI statistics above the Commission threshold level of 1,800. The first scenario in Table 8 assumes that only released capacity on GTN's system, or GTN capacity holders purchasing gas in the WCSB basin from producers are the only alternatives to full-haul IT on GTN's system. The second scenario in Table 9 assumes storage in the WCSB and transportation on TransCanada's mainline to eastern markets is the only alternative to GTN's system. The third scenario in Table 10 assumes that storage injection in the WCSB is the only alternative to GTN service. Each of these scenarios produces HHI statistics above 1,800, but these results are due to the conservative assignment of all storage capacity and unsubscribed capacity to the owner of the facility. If one were to assume that shippers on GTN contracted for additional firm capacity or consider the fact that storage is actually under contract to third parties, as Dr. Carpenter explains, then the HHI statistics would fall below the 1,800 level.

An additional factor demonstrating the conservative nature of Dr. Carpenter's analysis is that he includes all of the decontracted and available capacity of GTN in TransCanada's market share. The presence of approximately 450 MMcf/d of unsubscribed capacity on GTN increases the market share of TransCanada and the HHI statistic. However, it is extremely unlikely, given this large amount of excess capacity, that GTN could charge a full-rate IT customer a rate that is above the current market differential between the WCSB and PG&E Citygate prices. Including GTN's unsubscribed capacity in the HHI calculation for TransCanada increases the market share of TransCanada, while at the same time decreases the potential exercise of any market power over full-haul IT rates. GTN's customers are sophisticated and well aware of the available capacity on GTN's system. It is unlikely that they would accept any market-based full-haul IT rate that is above the market differential.

Q: What is the most important factor that the Commission should consider in evaluating whether to grant GTN the ability to charge market-based full-haul IT rates on the path from Kingsgate to Malin?

A: The evidence provided in this proceeding is exceedingly clear on one very important point: There is a significant and non-transitory oversupply of pipeline transportation capacity to California markets. This excess capacity is detailed in the direct testimony of GTN witness Leslie Ferron-Jones in Exhibit No. 26 at page 11. Witness Ferron-Jones explains that average day unutilized capacity to California markets is 3,333

MMcf/d, with a minimum of 2,346 MMcf/d of overcapacity even on a peak day basis, during the Base Period April 2005 to March 2006. GTN's total IT throughput to Malin during the Base Period on an average day was 6,289 Mcf/d -- less than 0.30% of GTN's pipeline capacity of 2.1 Bcf at Malin. In practical terms, if GTN attempted to exercise market power by withholding all of its IT capacity from the California markets at Malin, this would result in the withholding of only about 0.08% of the total California interstate natural gas capacity market of 8.3 Bcf/d.

Q: Please summarize your conclusions regarding GTN's market-based rate proposal for IT services?

A: Based on the formal market power study of GTN Witness Dr. Carpenter and the current analysis of the natural gas markets in the WCSB and California undertaken by GTN Witness Ferron-Jones, I conclude that: (a) GTN has correctly applied the Commission evidentiary standard required in a formal market power proceeding; (b) the evidence provided by GTN's witnesses clearly indicates that GTN does not have market power over full-haul IT transportation service between Kingsgate and Malin; and (c) the Commission should allow GTN to charge market-based rates for full-haul IT transportation service between Kingsgate and Malin.

Q: Do you have any further observations concerning the level of excess capacity in the IT market served by GTN?

A: It is apparent, given the current and projected excess capacity on the interstate pipeline systems serving the California market combined with the significant amount of storage capacity within the state of California, that good, competitive alternative services to

GTN's IT service currently exist and will continue to exist for the foreseeable future. The excess supply of pipeline capacity on interstate pipelines serving California from lower-priced supply basins, relative to the WCSB, has created GTN's serious decontracting and unutilized pipeline capacity problems. Currently, there are numerous good alternatives to GTN's IT service, including transportation on other pipelines (via capacity release or IT), storage options in California, the purchase of spot gas at the PG&E Citygate or capacity release on GTN itself. In addition, the excess capacity situation on GTN as well as on the other interstate pipelines serving California natural gas markets will keep bids for this daily capacity at a low rate. I believe that GTN's full-haul IT rates will be determined by the low market price differential between the WCSB and Malin and that this IT rate will remain significantly below GTN's cost-based IT rate.

Q: Current Commission policy allows natural gas pipeline companies to charge higher short-term rates than their long-term firm recourse rate. What do you think of this policy in light of the current market fundamentals in California?

A: Considering the poor market fundamentals for the current California interstate natural gas transportation market, many shippers are relying on short-term, capacity release and interruptible transportation services rather than long-term contracts. In the past, and particularly under SFV rate design, the majority of an interstate pipeline company's cost of service was recovered from long-term shippers, and most pipelines were either fully contracted or close to capacity at least on a peak day basis. As GTN witness Ferron-Jones documents in her testimony, that is no longer the case.

California markets are characterized by excess transportation capacity and customers that simply have no economic incentive to sign long-term contracts. It is also clear, given the level of surplus pipeline capacity and the stagnant natural gas demand in California, that market conditions will not allow an increase in transportation market fundamentals for any pipeline transportation services -- long-term firm, short-term firm, capacity release, or interruptible services.

Q: What possible benefit is there to GTN or other market participants if the Commission approves GTN's request to charge market-based rates for full-haul IT service between Kingsgate and Malin?

A: To the extent that GTN is allowed to charge market-based rates for full-haul IT service between Kingsgate and Malin, two real benefits will accrue to GTN and its customers. First, GTN may be able to charge an IT rate that recovers more of its fixed costs on higher demand days than would be possible if the full-haul IT rate is cost based. To the extent that this higher rate contributes to the overall revenue requirement of GTN, it will lower GTN's revenue requirement from its long-term firm shippers, and thus lessen the cost recovery imposed on those long-term firm customers. The second benefit is that market-based rates for full-haul IT service will provide the market with additional, immediate pricing signals of the value of the GTN leg of pipeline capacity between the WCSB and California. Pipelines and their customers carefully monitor the capacity release and IT markets for daily pricing signals about capacity. To the extent that prices rise in these daily markets, it can give indications to the market that supply and demand conditions may be coming into balance. It may also encourage end users and LDCs to sign up for longer-term firm contracts instead of speculating that they can meet their peak demand requirements through a combination of IT, capacity release, and short-term services that are currently priced significantly below the fixed cost of transportation. Natural gas pipeline companies are very capital intensive and, given the large fixed costs of pipeline infrastructure investments, it is unlikely that pipeline company management will make investments in pipeline facilities if they are unable to recover some of their fixed costs in longer-term contracts. To the extent that market-based rates for full-haul IT service provide the proper price signals to investors and shippers, market-based rates for full-haul IT service will benefit both groups. The Commission has clearly stated that price efficiently allocates capacity to customers that value it the most and this should be the case for full-haul IT service on GTN.

Q: How has GTN proposed to protect long-term firm shippers on its pipeline system?

A: GTN Witness John Roscher explains in his direct testimony (Exhibit No. GTN-6) that GTN is proposing to have the ability to charge higher rates for services that provide shippers short-term flexibility (these services are referred to as “flexible services” in Mr. Roscher’s testimony). Market-based rates for full-haul IT service will provide the pipeline with the greatest pricing flexibility in this regard. Mr. Roscher explains that for Kingsgate to Malin shippers, allowing GTN to charge market-based rates for full-haul IT service will eliminate shippers’ current option of receiving a usage-based service that is comparable to firm in reliability, but that is priced at a cost-based rate that is usually discounted. Mr. Roscher further explains that if GTN is allowed to charge market-based rates for full-haul IT transportation, shippers seeking transportation capacity will have to weigh their potential exposure to higher transportation costs against the certainty provided by entering into either short-term firm or long-term firm transportation agreements. Adding this element to the shipper decision-making process can provide an additional impetus for signing long-term contracts that provide GTN with additional assured fixed cost recovery. In Order No. 637, the Commission encouraged short-term pricing policies that benefit long-term firm customers as well as providing shippers with incentives to sign longer-term contracts. Mr. Roscher is clearly in accord with current Commission policy, stating that the objective of GTN's market-based full-haul IT rate proposal is to provide GTN with a better opportunity to capture transportation value when such limited opportunities arise. This will increase the recovery of unsubscribed capacity costs, thereby mitigating the impact of turnback capacity on GTN and its recourse rate, long-term firm shippers.

Q: Are there additional benefits to GTN witness Roscher's recommendation concerning revenue sharing for long-term firm customers?

A: Mr. Roscher is recommending that all revenues related to flexible services (market-based full-haul IT service included) be shared between GTN and long-term firm customers on a 25%/75% basis, respectively, after revenues have been recovered that equal the level of costs that have been allocated to subscribed services in this rate case. Sharing these revenues from flexible services with the long-term firm customers provides an additional incentive to shippers to sign long-term firm contracts, because they will be able to share these revenues.

Q: Please relate your discussion of the Commission's efforts to rely on competition in its regulation of the gas industry to GTN's request to charge market-based rates.

A: The actions of the Commission, starting with Order No. 436, demonstrate that the Commission will rely on competitive market forces as often as possible in overseeing natural gas markets. These actions have resulted not only in competition in the gas commodity market, but have also resulted in increased competition in transportation pipeline paths between origin and destination markets. Ms. Ferron-Jones highlights the fundamental marketing problem that GTN now faces -- the very low value of GTN’s pipeline capacity caused by poor underlying market fundamentals. This problem is expected to continue. Dr. Carpenter discusses the degree of competition on the GTN system and concludes that, in the full-haul IT transportation market for which GTN seeks to implement market-based rates, competition is sufficient to permit the Commission to rely on competitive forces to produce just and reasonable rates.

Traditional ratemaking techniques do not adequately recognize the changing value that markets put on locational differentials such as WCSB to PG&E Citygate. Cost-based rate caps, for example, are determined on the basis of averages, either system-wide, mileage, or zonal. However, the value placed on GTN's transportation by the market changes from time to time. Allowing GTN the flexibility to charge market-based rates will allow GTN the ability to charge rates that respond immediately to these fluctuations in pipeline value.

Q: Earlier you stated that the essential purpose of rate regulation is to assure that customers without alternatives are protected from the monopoly power of pipelines. Is GTN's IT market-based rate proposal consistent with that purpose?

A: Yes. Those customers without alternatives will be able to continue to obtain IT service from GTN based on a capped, cost-of-service rate. And, as I just discussed, the full-haul IT rates that Kingsgate to Malin customers pay likely will continue to be set by the differential between the WCSB to the PG&E Citygate prices, prices that will remain considerably lower than GTN's cost-based rates. In meeting its obligation to provide consumers with the lowest reasonable rate, the Commission also has an obligation to provide the regulated company with a reasonable opportunity to recover its prudently incurred costs. GTN's market-based rate proposal will best meet this objective because it provides GTN the flexibility to price its transportation services as required by the market.

Q: Does this complete your direct testimony?

A: Yes, it does.