

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

Gas Transmission Northwest Corporation)

Docket Nos. RP06- -000

Prepared Direct Testimony of Paul R. Carpenter

I. QUALIFICATIONS AND INTRODUCTION

Q: Please state your name, address, and position.

A: My name is Paul R. Carpenter. I am a Principal of The Brattle Group, an economic and management consulting firm with offices in Cambridge, MA, Washington DC, San Francisco, CA, London, England, and Brussels, Belgium. My office is located at 44 Brattle Street, Cambridge, Massachusetts, 02138.

Q: Will you briefly describe your educational background and professional qualifications?

A: Yes. I am an economist specializing in the fields of industrial organization, finance and energy and regulatory economics. I received a Ph.D. in Applied Economics and an M.S. in Management from the Massachusetts Institute of Technology, and a B.A. in Economics from Stanford University. I have been involved in research and consulting on the economics and regulation of the natural gas, oil and electric utility industries in North America and abroad for over twenty years. I frequently have testified before federal, state and Canadian regulatory commissions, in federal court and before the United States Congress, on issues of pricing, competition and regulatory policy in these industries. Outside of North America, I have advised governments and regulatory bodies on the

1 structure of their natural gas markets and the pricing of gas transmission services. These
2 assignments have included testimony before the U.K. Monopolies and Mergers
3 Commission and the Australian Competition Tribunal, and advice to the governments of,
4 and regulators in, Greece, Ireland, the Netherlands, New Zealand, and Australia.

5 For nearly twenty years I have been involved in, and have testified on, matters
6 involving the natural gas industry in the western United States and Canada, particularly
7 with respect to the structure and performance of the natural gas market in California. For
8 example, I was the principal economic expert witness before this Commission on policy
9 for the certification of the Kern River and Mojave pipelines in the late 1980s. More
10 recently, I testified before the Commission in the El Paso Natural Gas complaint case
11 (Docket No. RP00-241), concerning market manipulation at the southern California
12 border during the California Energy Crisis of 2000-2001 and I have participated in many
13 of the California Public Utility Commission proceedings that have been an outgrowth of
14 the crisis. In Canada, I have testified many times before the National Energy Board and
15 other provincial agencies on Canadian regulatory policy toward pipelines exporting gas
16 to the United States from the Western Canada Sedimentary Basin ("WCSB"). These
17 engagements are listed in my resume, which is attached to this testimony as Exhibit No.
18 GTN-64.

19 **Q: What is the purpose of your testimony?**

20 A: I have been asked by Gas Transmission Northwest Corporation ("GTN") to analyze the
21 market and competitive environment in which GTN operates currently and to render an
22 opinion as to whether GTN's full-haul interruptible transportation ("IT") service from its

1 Kingsgate receipt point to its Malin, Oregon delivery point¹ qualifies for market-based
2 rate (“MBR”) treatment under the guidelines for such treatment established by the
3 Federal Energy Regulatory Commission (“the FERC” or “the Commission”).

4 **II. SUMMARY OF ANALYSIS AND CONCLUSIONS**

5 **Q: Could you summarize the results of your analysis?**

6 A: Yes. The analysis shows, and I conclude, that the destination and origin markets in
7 which GTN’s full-haul interruptible transportation services compete are sufficiently
8 unconcentrated, with a low enough GTN market share, and with sufficient alternatives
9 available to GTN’s full-haul IT customers, that the Commission can safely approve
10 GTN’s market-based rate application for full-haul IT service to Malin, Oregon.

11 **Q: What is the basis for this conclusion?**

12 A: In reaching this conclusion I have applied the criteria that the Commission has
13 established for determining whether a natural gas pipeline’s service qualifies for market-
14 based rates. The findings detailed in the testimony below include:

- 15 • The relevant product is the provision of full-haul interruptible transportation
16 service on the GTN pipeline during peak and off-peak periods.
- 17 • The relevant geographic destination market for this service is northern California.
18 Alternatives to this service in the destination market include spot gas supplies
19 made available by other holders of pipeline capacity on GTN and other pipelines
20 serving northern California, IT service and released capacity on other pipelines

¹ Throughout this testimony I refer to GTN’s IT service from its Kingsgate receipt point to its Malin, Oregon, delivery point as its “full-haul IT service.”

1 serving northern California, and storage withdrawals from storage fields located
2 in northern California.

- 3 • The relevant origin market for this service is the geographic area that includes the
4 WCSB. Alternatives to GTN's full-haul IT service out of the WCSB include the
5 transportation services of other pipelines out of the WCSB, including IT service
6 and capacity assigned by shippers on those pipelines in the secondary market, and
7 storage injection services in Alberta.
- 8 • Market concentration in the destination market as measured by the Herfindahl-
9 Hirschman Index ("HHI") statistic ranges from 1,052 to 1,091 (with a GTN
10 market share of 12 to 18 percent) depending on assumptions concerning whether
11 capacity held by some shippers on a firm basis is committed to serve customers in
12 Northern California on peak days. These results are conservatively calculated,
13 and well below the HHI threshold of 1,800 that has been employed by the FERC
14 (and other agencies) historically to define a highly concentrated market.
- 15 • Data on capacity released over the period January 2005 through February 2006 on
16 GTN and other pipelines into northern California indicate that the alternatives
17 included in the HHI calculation have been available to customers, even during the
18 peak demand months. These and other data detailed below provide confirmation
19 and further support for the HHI and market share statistics derived for the
20 destination market.
- 21 • Market concentration in the origin market ranges conservatively from 1,514 to
22 1,690 (with a GTN/TransCanada market share of 25 to 36 percent) depending on

whether one includes the available capacity on TransCanada's mainline to the east in the relevant market. In either case these concentration measures are below the 1,800 threshold for highly concentrated markets.

- Data on capacity released/assigned during the period January 2005 through February 2006 on the Canadian pipelines exiting the WCSB indicate that the alternatives to full-haul IT service on the GTN path to producers in the basin have been available, even during peak demand periods. These data, and the liquidity and flexibility of the Nova Inventory Transfer ("NIT") service in the WCSB, provide confirmation and further support for the results of the HHI and market share statistics derived for the origin market.

Q: Is there any relationship between the analysis of market power regarding GTN's full-haul IT service and the flexible service pricing proposal outlined in the testimony of John A. Roscher?

A: No. The analysis of market power contained in my testimony is a prerequisite for determining whether market-based rates should be granted for GTN's full-haul IT service. In contrast, the flexible service pricing proposal outlined in the Prepared Direct Testimony of John A. Roscher² applies to all short-term services provided by GTN, and is based on Commission precedent as discussed in his testimony.

III. ECONOMIC CRITERIA FOR MARKET-BASED RATES

Q: What is your understanding of the Commission's guidelines for establishing whether a gas pipeline's services qualify for MBR treatment?

A: The Commission's guidelines permit a pipeline to charge market-based rates if it can be established that the pipeline lacks market power by showing that customers have

1 sufficient “good alternatives” to the service(s) in question.³ A “good alternative” is
2 defined as a substitute product “with the required availability, price, and quality that are
3 offered by sellers within a geographic area consisting of a path between origin and
4 destination markets, an origin market, or a destination market.”⁴

5 The Commission’s framework addresses two principal questions. First, whether
6 the applicant for market-based rates can withhold or restrict the service so as to raise the
7 price of the service by a significant amount for a significant period of time, and second,
8 whether the applicant can discriminate unduly in price or in the terms and conditions of
9 service.⁵

10 **Q: What steps are involved in developing such an analysis for a gas pipeline?**

11 A: The analytical steps involved are ones that have been developed by economists,
12 enforcement and regulatory agencies and the courts over the last 20 years or more to
13 determine whether firms like gas pipelines possess market power. First, one defines the
14 relevant product and geographic markets, employing the destination and origin market
15 framework mentioned above. Second, one measures the applicant’s market share and the
16 market concentration (as measured by the HHI) within each geographic destination and
17 origin market. The HHI is the sum of the squared market shares of all competing sellers
18 of substitutes for the relevant product in the relevant geographic market. The
19 Commission (as well as the Federal Trade Commission and the U.S. Department of

² Prepared Direct Testimony of John A. Roscher, Exhibit No. GTN-6.

³ Alternatives to Traditional Cost-of-Service Ratemaking for Natural Gas Pipelines, Statement of Policy and Request for Comments, 74 FERC ¶ 61,076 (January 31, 1996) (“the Policy Statement”).

⁴ *Koch Gateway Pipeline Company*, 61 FERC ¶ 61,013.

⁵ The Policy Statement, pp. 20-21.

Justice) has used an HHI threshold of 1,800 to indicate whether a market is highly concentrated. Finally, one looks to other available evidence and market factors to help determine whether the substitutes provided by competing sellers in the market so defined are “good alternatives.”

Q: How is the rest of your testimony organized?

A: I have organized the testimony in terms of the analytical steps described above. First, I define the relevant product. Then, I analyze the market concentration and GTN’s share in the relevant destination and origin markets. In each geographic market, I also describe the additional evidence on actual alternative suppliers of substitute products.

IV. PRODUCT MARKET DEFINITION

Q: What is the relevant product in this case?

A: The relevant product is the provision of interruptible transportation services on the GTN pipeline during peak and off-peak hours. GTN is asking for the authority to charge market-based rates for its full-haul IT service only. In that context, customers of its full-haul IT service will always have recourse to purchase long and short-term firm services from GTN at capped regulated cost-based tariff rates. GTN is also asking for MRB authority only for its full-haul IT services from its Kingsgate receipt point at the U.S./Canadian border, to its Malin, Oregon delivery point. IT services to other GTN delivery points in the Pacific Northwest will continue to be subject to a capped cost-based tariff rate.

Q: What potential alternatives are relevant to the provision of IT services?

1 A: The potential alternatives that are relevant depend on whether we are analyzing the
2 destination market or the origin market. In the destination market, since IT is a short
3 term service, alternatives will include natural gas deliveries that are available from other
4 suppliers on short notice. These include spot gas supplies made available by other
5 holders of pipeline capacity, IT service on other pipelines serving the destination market,
6 released pipeline capacity that is made available in the capacity release and secondary
7 capacity markets, and storage withdrawals. In the origin market relevant potential
8 alternatives include capacity made available on the secondary market through capacity
9 assignment (release) by other holders, IT capacity on other pipelines serving the origin
10 market, and storage injection available in the market on short notice.

11 **Q: Why do you consider delivered gas to be a substitute for an interruptible**
12 **transportation service in the destination market?**

13 A: Delivered gas and IT are substitutes because the principal reason that a customer will
14 procure IT service is to obtain delivered gas supply. In the face of a hypothetical price
15 increase for full-haul IT service by GTN, a full-haul IT customer could instead simply
16 procure short term gas supplies from another seller delivered to the market via the
17 alternatives identified above.

18 V. DESTINATION MARKET ANALYSIS

19 DESTINATION MARKET DEFINITION

20 **Q: How do you define the destination market in this case?**

21 A: The relevant destination market in this case is conservatively defined as northern
22 California. The relevant geographic market is defined by the area in which a customer of
23 GTN's full-haul IT services could go to access alternative sellers of short term gas supply

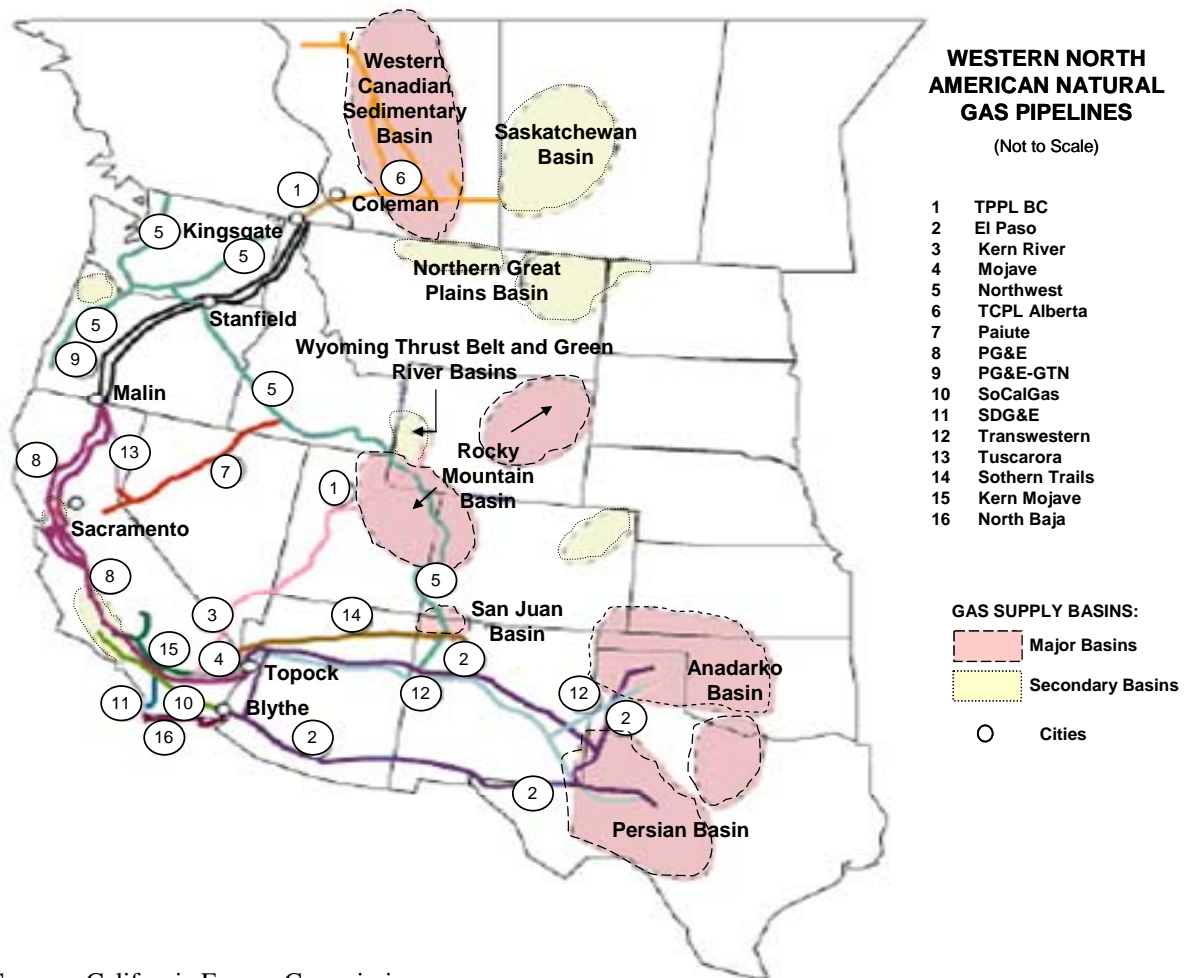
1 in response to a price increase by GTN.⁶ A customer purchasing full-haul IT service
2 from GTN via Malin has the potential ability to obtain short term supplies from any
3 source that has access to the PG&E backbone transmission system. These alternatives
4 include:

- 5 • supplies available using uncommitted transportation capacity on the GTN, El
6 Paso, Transwestern, Questar Southern Trails and Kern River pipeline systems;
7 capacity released by other shippers on these pipelines, including GTN; and
- 8 • storage withdrawal services connected to the PG&E backbone delivery system,
9 including such services from Wild Goose, Lodi and PG&E's non-core storage
10 facilities; and in-state California production to the extent that it is not committed
11 to others.

12 Figure 1 is a map of the northern California area showing the locations of the
13 facilities and alternative supplies identified above.

⁶ The Policy Statement, pp. 28 - 33.

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Figure 1

Source: California Energy Commission

Q: Why is your geographic destination market limited to northern as opposed to all of California?

A: I have conservatively limited the geographic market to northern California due to the limited capability to access the PG&E backbone system with supplies/transportation from the Southern California Gas Company (“SoCalGas”) system. Note that short term exchanges of gas between the PG&E Topock and SoCalGas Topock delivery points at the California border can and do occur, but such exchanges would still physically be limited by the capability of PG&E’s Baja Path (Line 300) from PG&E Topock, which is already accounted for in my market definition.

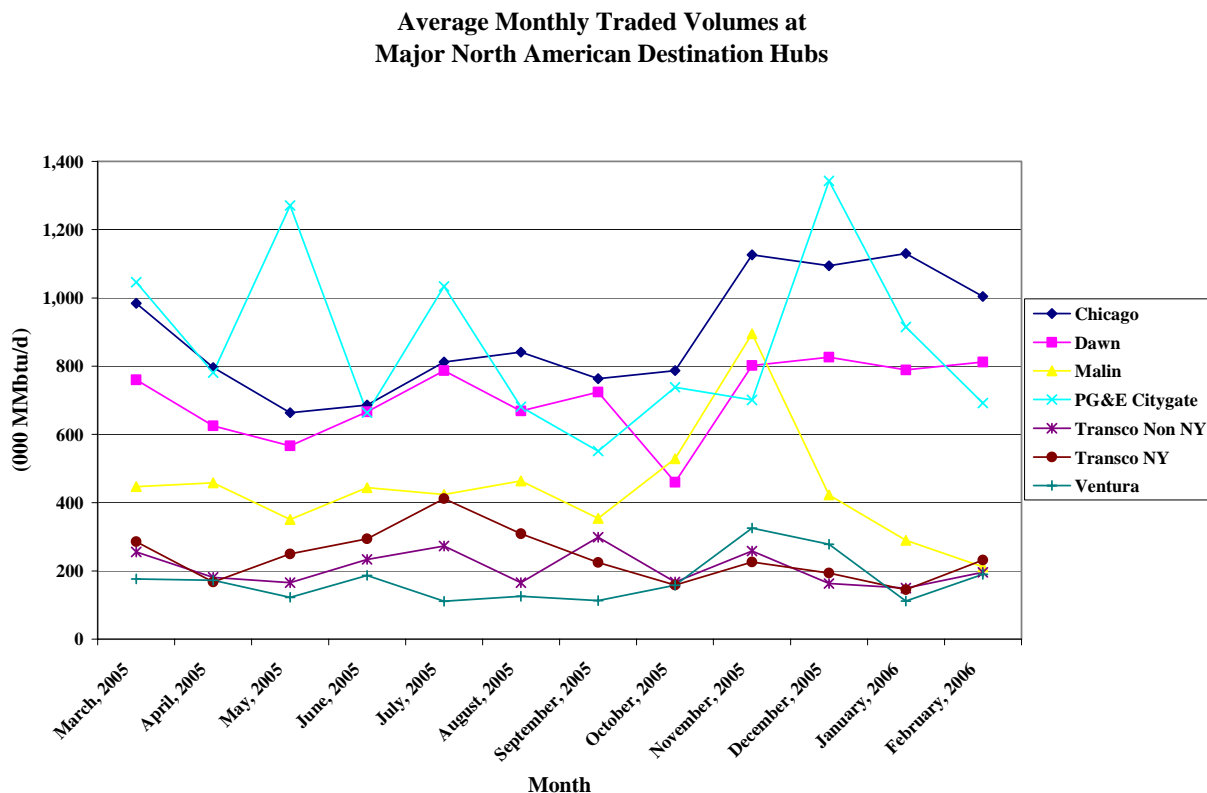
1 Limiting the geographic market to northern California is conservative because
2 there is the potential for gas delivered into PG&E's system at Malin to be delivered into
3 SoCalGas's system in southern California and compete against other sources of supply
4 that are delivered directly into SoCalGas' system rather than first flowing through
5 PG&E's system. Including these supply sources directly connected to SoCalGas' system
6 would increase the competitive alternatives to GTN and lower GTN's market share in my
7 destination market analysis.

8 **Q: Is there other evidence that would lead one to conclude that northern California is a**
9 **single geographic destination market for supplies delivered via GTN's full-haul IT**
10 **service?**

11 A: Yes. The most liquid trading point in northern California is a location referred to as the
12 PG&E Citygate. The PG&E Citygate is a notional point that is accessed by supplies via
13 the PG&E backbone system from GTN at Malin and from supplies that access the PG&E
14 Line 300, including Kern River, Southern Trails and El Paso via PG&E Topock. As
15 shown in Figure 2, the average monthly volume traded at the PG&E Citygate was higher
16 than at other North America destinations such as Chicago or New York during several
17 months over the period March 2005 through February 2006.

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Figure 2



Source: Platts

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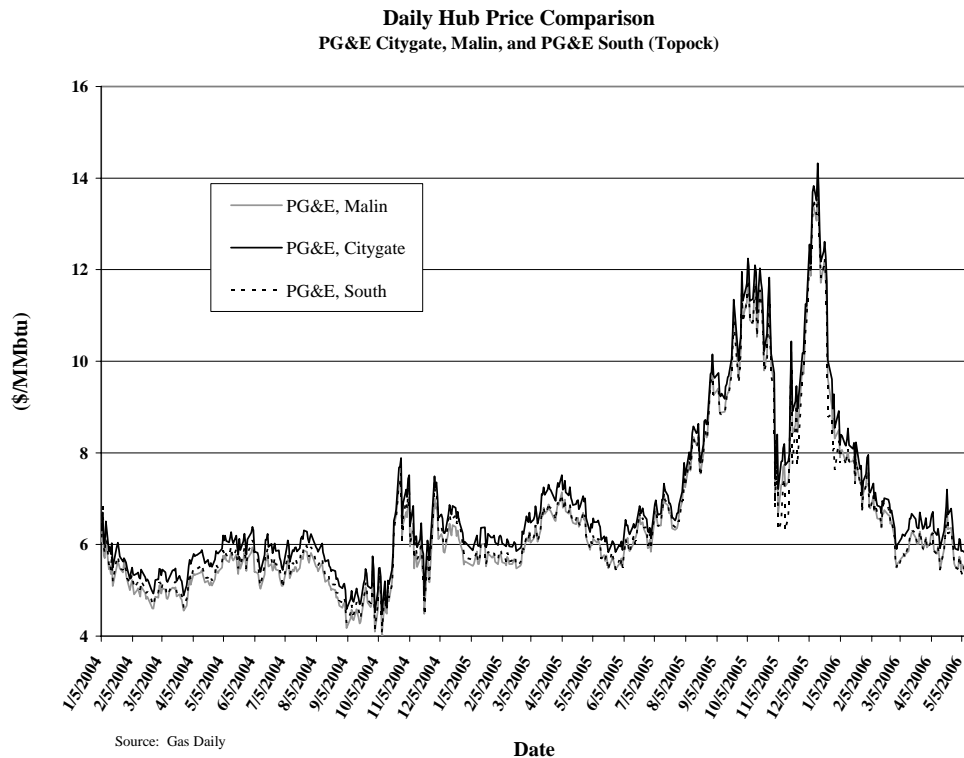
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As shown in Figure 3, prices at the PG&E Citygate move in correlation with the prices at Malin and Topock (PG&E South) where supply enters PG&E's backbone transportation system. This correlation in price between the locations is an indication that the prices in the three locations are responding to similar demand and supply conditions as a single geographic market (with some location differences within the geographic market).

Figure 3

MARKET SHARE AND CONCENTRATION

Q: How have you estimated market concentration and market share statistics for the northern California destination market?

A: To determine the destination market concentration, and GTN's share, I have compiled publicly available data concerning capacity holdings on GTN and the alternative pipelines and sources of supply. Unsubscribed capacity on GTN and other pipelines I have attributed to the owner of the facilities.⁷ For storage withdrawal capacity, there is

⁷ With respect to unsubscribed capacity on GTN, I have made the contract adjustments discussed in the Prepared Direct Testimony of Benjamin K. Johnson (Exhibit No. GTN-12), which includes excluding contracts in effect as of GTN's April 1, 2006 Index of Customers that are being turned back to GTN prior to November 1, 2006 as stated in the Prepared Direct Testimony of Leslie Ferron-Jones (Exhibit No. GTN-26). Excluding these contracts that will be turned back increases the amount of unsubscribed capacity on GTN. I have also used the maximum operational capacity of the pipelines to determine

1 no publicly available data showing the quantity of capacity held by third parties, and thus
2 I have made the conservative assumption of assigning the storage withdrawal capacity to
3 the owner of the storage fields. Because there is more interstate pipeline capacity and
4 firm contracts delivering into PG&E's Line 300 from the southwest than there is
5 takeaway capacity on Line 300, I have reduced the amount of capacity holdings that
6 would be in competition with GTN's full-haul IT service to the lower Line 300 capacity
7 level to account for the difference.

8 **Q: What adjustments have you made to account for this capacity mismatch?**

9 A: I have made the conservative assumption that firm capacity on the interstate pipelines
10 would have priority access to Line 300 relative to any unsubscribed capacity on El Paso,
11 Transwestern, Kern River, and Southern Trails. Since there is more capacity held under
12 firm contracts than Line 300 capacity of 1,140 MMcf/d, I have reduced pro-rata the firm
13 capacity holdings by shipper across the various pipeline sources. (The alternative, less
14 conservative, assumption would be to pro-rate down the capacity holdings of all firm
15 shippers as well as any unsubscribed capacity.)

16 **Q: What is the result of these calculations?**

17 A: Tables 1 and 2 show HHIs and market share statistics for the destination market
18 computed in two ways. Table 1 shows the HHI under the assumption that all firm and
19 unsubscribed capacity on GTN, and from the other sources (subject to the Line 300
20 restriction discussed above) are available as an alternative to GTN's full-haul IT service.

unsubscribed capacity. The maximum operational capacity is greater than the design capacity used to determine the amount of capacity that can be sold as firm capacity.

The resulting HHI figure is 1,091 and GTN's share is 12 percent. Exhibit No. GTN-65 attached to this testimony, presents the full HHI analysis based on all alternative sources.

Table 1

Destination Market HHI Analysis Summary Table
Interstate Pipeline Capacity and Non-Core Storage Withdrawal Connected to PG&E's System
All Shippers
(MMc/d)

Capacity Holder	GTN	Kern River	El Paso	Transwestern	Southern Trails	Storage Withdrawal	Total	Market Share	HHI
[a]	[b]	[c]	[d]	[e]	[f]	[g]	[h]=sum([b]:[g])	[i]=[h]/Total [h]	[j]=(i*100) ²
TransCanada/GTN	534	0	0	0	0	0	534	12%	141
<u>Other Large Holders</u>									
PG&E	600	0	191	143	0	146	1,080	24%	577
EnCana Corporation	62	0	0	0	0	480	542	12%	145
Arclight Capital	0	0	0	0	0	500	500	11%	124
Sempra Energy	145	29	110	0	0	0	283	6%	40
All Other Capacity Holders	892	181	308	103	75	0	1,558	35%	65
Totals:	2,232	209	610	246	75	1,126	4,498	100%	1,091

Note: "All Other Capacity Holders" in the above table are treated individually in the HHI calculation.

Table 2 presents the results under the assumption that only capacity held by shippers that are not local distribution companies ("LDCs") or industrial end users is "available" as an alternative to full-haul IT. This is likely only to be the case during periods of peak demand, but provides a conservative assessment of competition faced by GTN's full-haul IT service. The resulting HHI is 1,052 and GTN/TransCanada's share is 18 percent. Exhibit No. GTN-66 attached to this testimony, presents the full HHI analysis based on excluding LDCs and industrial end users. Each of these measures of concentration and share are well below the thresholds for competitive concern in the destination market.

Table 2

Destination Market HHI Analysis Summary Table
Interstate Pipeline Capacity and Non-Core Storage Withdrawal Connected to PG&E's System
Excluding LDCs and Industrial Users
(MMcf/d)

Capacity Holder	GTN	Kern River	El Paso	Transwestern	Southern Trails	Storage Withdrawal	Total	Market Share	HHI
[a]	[b]	[c]	[d]	[e]	[f]	[g]	[h]=sum([b]-[g])	[i]=[h]/Total [h]	[j]=(i*100) ²
TransCanada/GTN	534	0	0	0	0	0	534	18%	310
Other Large Holders									
EnCana Corporation	62	0	0	0	0	480	542	18%	319
Arclight Capital	0	0	0	0	0	500	500	16%	272
Sempra Energy	93	29	33	0	0	0	155	5%	26
PG&E	0	0	0	0	0	146	146	5%	23
All Other Capacity Holders	594	141	264	84	75	0	1,157	38%	102
Totals:	1,283	169	297	84	75	1,126	3,033	100%	1,052

Note: "All Other Capacity Holders" in the above table are treated individually in the HHI calculation.

DIRECT EVIDENCE OF AVAILABILITY OF SUBSTITUTES

Q: How do you know that capacity held by shippers other than LDCs and industrial end users would be available as an alternative to full-haul IT service?

A: This capacity would be available because non-LDC and end-user shippers are typically holding capacity on the upstream pipelines, or storage, for the purpose of making such supplies available at the highest market price. Note that even some industrial end users and LDCs will release capacity or sell gas into the short term market if they do not need all of the supply on a given day – which is likely to be the case during off-peak periods.

Q: Is there any way to confirm this conclusion?

A: Yes. To do so I have examined historical capacity release data for GTN and the other pipeline supply alternatives into PG&E's system considered above. As shown in Table 3, for the period January 2005 through February 2006,⁸ the quantity of released capacity to Malin on GTN averaged approximately 21 percent of the firm capacity on GTN included in the HHI analysis in Table 2 above (which is the version that excludes capacity held by LDCs and end-users). The minimum and maximum quantity released during a month

was 17 percent and 30 percent, respectively, of the firm capacity included in the HHI analysis in Table 2. The quantity released over the 14-month period is relatively constant, with the minimum amount occurring in January 2006, and the maximum amount occurring in March 2005 as shown in the detailed table attached as Exhibit No. GTN-67. Also of note is that LDCs and end-users holding capacity on GTN's system released an average of 70,000 MMBtu/d, with a minimum of 50,000 MMBtu/d during the 14-month period, which suggests that the exclusion of all of the firm capacity held by LDCs and end-users from the HHI analysis in Table 2 is conservative.

Table 3

GTN Capacity Release Summary - Delivery Point Malin Summary for the Period Jan. 2005 through Feb. 2006 (MMbtu/d)				
		Average Released Quantity During a Month		
		Minimum	Maximum	Average
[1]	Total Capacity Release for Shippers Included in HHI Analysis	56,284	122,551	91,459
[2]	Total Capacity Release for LDCs/End-Users Excluded from HHI Analysis	48,342	115,531	72,221
[3]	Total Capacity Release	129,546	228,749	163,680
[4]	Firm Capacity Included in HHI Analysis	761,423	761,423	761,423
[5]=[3]/[4]	Released Capacity as a Percentage of Firm Capacity Included in HHI Analysis	17%	30%	21%

Source: Capacity Release Data From Platts

With respect to the pipelines delivering into PG&E's Line 300 in southern California, for the period January 2005 through February 2006, capacity release activity varied widely as shown in Table 4. While the quantity of released capacity averaged approximately 36 percent of the firm capacity included in the HHI analysis in Table 2 above, the minimum amount in the months examined was 1 percent and the maximum amount was 79 percent. As shown in Exhibit No. GTN-68 to this testimony, the minimum amount occurred in May 2005, with the quantity of released capacity being

⁸ I have excluded all capacity release transactions that are greater than one year in term from my analysis of capacity release.

below the average of 36 percent during March 2005 through July 2005. During January and February 2005, and the period August 2005 through February 2006, the amount of released capacity was at or above the average amount of 36 percent.

Table 4

Kern River, Transwestern, and El Paso Capacity Release Summary Summary for the Period Jan. 2005 through Feb. 2006 (MMbtu/d)				
		Average Released Quantity During a Month		
		Minimum	Maximum	Average
[1]	Total Capacity Release for Shippers Included in HHI Analysis	-	162,986	77,772
[2]	Total Capacity Release for LDCs/End-Users Excluded from HHI Analysis	7,133	303,910	130,111
[3]	Total Capacity Release	7,133	459,694	207,883
[4]	Firm Capacity Included in HHI Analysis	584,912	584,912	584,912
[5]=[3]/[4]	Released Capacity as a Percentage of Firm Capacity Included in HHI Analysis	1%	79%	36%

Source: Capacity Release Data From Platts

Q: Are there any other factors that the Commission should consider in evaluating the competitive conditions in the destination market for GTN's full-haul IT service?

A: Yes. As discussed in the Prepared Testimony of Leslie Ferron-Jones (Exhibit No. GTN-26), the interstate pipeline capacity delivering into California, coupled with storage withdrawal capacity within California, significantly exceeds demand under current market conditions. This capacity situation has created significant unutilized capacity on the interstate pipelines delivering into California, and has resulted in firm contract holders turning back large volumes of capacity on GTN's system. The turned-back capacity on GTN's system is evidence of shippers valuing transportation on GTN's system below that of transportation on alternative pipelines, and reflects the availability of these alternative pipelines to meet the current demand for firm contracts delivering into California, and notably PG&E's system.

This decrease in demand for firm service on GTN suggests that shippers are not projecting the basis differential between the WCSB and Malin to exceed the rate at which

1 they could enter into firm contracts on GTN's system (and the pipelines upstream of
2 GTN) over an extended period of time. If in the future, shippers do foresee the basis
3 differential exceeding between the WCSB and Malin exceeding the firm transportation
4 rate between the WCSB and Malin, the presence of approximately 400 MMcf/d of
5 unsubscribed capacity on GTN⁹ eliminates GTN's ability to sustain a full-haul IT rate
6 above the capped cost-based firm transportation rate as shippers could avoid such pricing
7 by entering into firm transportation contracts at the recourse tariff rate. Shippers entering
8 into new firm transportation contracts on GTN increase the competitive alternatives to IT
9 sold by GTN, serving to lower the market shares for Transcanada/GTN reflected in the
10 HHI calculations above.

11 **Q: What do you conclude with respect to the destination market analysis?**

12 A: The market concentration analysis indicates that there exist sufficient competitive
13 alternatives to full-haul IT on GTN such that GTN does not have the ability to sustain an
14 increase in price. Market concentration in the destination market as measured by the HHI
15 statistic is consistent for both scenarios examined, ranging from 1,052 to 1,091 (with a
16 GTN market share of 12 to 18 percent) depending on assumptions concerning whether
17 capacity held by some shippers on a firm basis is committed to serve customers in
18 Northern California on peak days. These market concentration results are conservatively
19 calculated, and coupled with evidence of significant unutilized capacity on GTN and
20 active capacity release behavior by firm contract holders, indicate that GTN does not

⁹ As stated previously, for my HHI calculations I use the maximum operational capacity to determine unsubscribe capacity. The maximum operational capacity is greater than the design capacity that can be sold as firm capacity. See the Prepared Testimony of Leslie Ferron-Jones (Exhibit No. GTN-26).

1 have the ability to exercise market power over full-haul IT given current demand
2 conditions in the destination market.

3 VI. ORIGIN MARKET ANALYSIS

4 ORIGIN MARKET DEFINITION

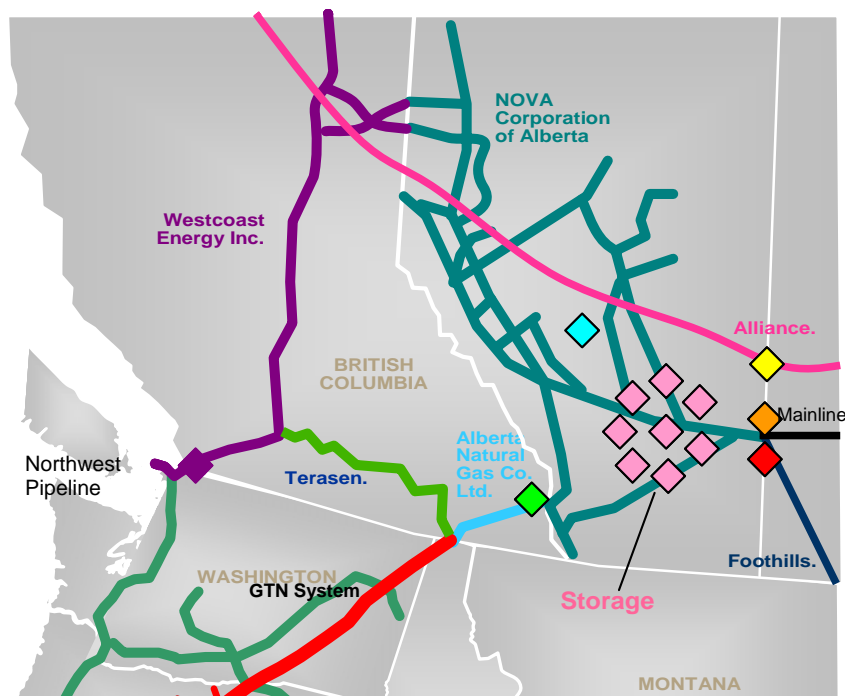
5 **Q: How do you define the origin market in this case?**

6 A: The origin market consists of the geographic area in which suppliers (producers) of gas
7 could turn to alternative outlets for their gas supply in the face of an increase in the price
8 of full-haul IT on the applicant's pipeline path. In this case, the origin market consists of
9 the geographic area that includes the WCSB and transmission pipelines and storage
10 facilities that serve the WCSB. GTN accesses the WCSB through an interconnection at
11 the U.S./Canada border with TransCanada's British Columbia ("BC") System.

12 **Q: What alternatives are available to a producer to move its gas out of the WCSB on a**
13 **short-term basis other than using the BC System and GTN's full-haul IT service?**

14 A: Alternatives to full-haul IT service on the BC System/GTN include secondary market
15 capacity held by shippers on the BC System and released capacity on GTN; secondary
16 market and interruptible capacity on other pipelines serving the WCSB, including
17 TransCanada's Mainline, the Foothills Pipeline/Northern Border system, the Alliance
18 Pipeline, and the WestCoast pipeline; and storage injection services in Alberta. Figure 4
19 is a map that shows this geographic area and the various alternatives just described.

Figure 4



Q: How easy is it for producers in the WCSB to access these alternatives?

A: It is very easy given that the vast majority of WCSB producers can access TransCanada's Alberta System (formerly Nova Gas Transmission) and avail themselves of Nova Inventory Transfer Service ("NIT").

1 **Q: Could you briefly describe the NIT service?**

2 A: NIT is Alberta, Canada's natural gas trading hub that manifests itself on TransCanada's
3 Alberta System and the storage facilities connected to TransCanada's Alberta System.
4 Natural Gas produced in the WCSB is received into the notional NIT trading point
5 (which can include delivery into the storage facilities connected to TransCanada's
6 Alberta System) under when a regulated gathering transportation tariff. Once the natural
7 gas is received at the notional NIT trading point, there is a no-charge inventory transfer
8 (or title transfer) service provided by TransCanada, whereby parties can buy and sell the
9 natural gas in bilateral transactions and simply inform TransCanada of the title transfer.
10 Shippers then have access to multiple destination markets from the notional NIT trading
11 point, including the western United States via TransCanada's BC system to GTN, the
12 Midwestern United States via TransCanada's Foothills system and Northern Border
13 Pipeline, and eastern Canada and the northeast United States via TransCanada's Mainline
14 and United States pipelines interconnected to the Mainline, including Great Lakes Gas
15 Transmission, Tennessee Gas Pipeline, and Iroquois Gas Transmission.

16 **Q: How has the flexibility of the NIT service affected the liquidity of the natural gas**
17 **market in Alberta?**

18 A: The flexibility of the NIT service has made the NIT hub one of the most active and liquid
19 in North America. The flexibility to transfer gas between the storage locations and to
20 deliver gas to multiple pipelines moving gas out of the WCSB, coupled with the no-
21 charge transaction service and the ability to transact and nominate on the same flow day,
22 allows buyers and sellers to transact and move gas in response to market conditions.

23 **Q: How have you determined whether the alternative outlets for producers you have**
24 **identified above are economically attractive alternatives?**

1 A: To determine the economic attractiveness of these alternatives relative to the GTN path, I
2 have examined the netback prices received by producers in the WCSB over these various
3 alternative paths during the last two years.

4 **Q: What is a netback analysis?**

5 A: A netback analysis evaluates the economic attractiveness of various routes to downstream
6 markets by calculating the price a producer would have received for its gas in the basin
7 on a particular path after deducting the full tariff transportation rate from the downstream,
8 delivered market price.

9 **Q: What alternative transportation paths and downstream markets did you examine in**
10 **your netback analysis?**

11 A: I considered the following markets and paths out of the WCSB as alternatives to GTN to
12 Malin via TransCanada's BC System:

- 13 • Chicago via Alliance Pipeline or via TransCanada's Foothills Pipeline and
14 Northern Border Pipeline¹⁰;
- 15 • Dawn, Ontario via TransCanada's Mainline and Great Lakes Gas Transmission;
- 16 • Niagara, New York via TransCanada's Mainline;
- 17 • Iroquois receipt point via TransCanada's Mainline;
- 18 • New York delivery via Niagara receipt into Tennessee Gas Pipeline;
- 19 • New England delivery via Niagara receipt into Tennessee Gas Pipeline; and
- 20 • Sumas, Washington delivery via WestCoast Pipeline.

¹⁰ For the transportation rate on Northern Border Pipeline, I use the proposed rate in Northern Border's October 31, 2005 tariff filing in Docket No. RP06-72-000.

Q: What are the results of your netback analysis of these various paths?

A: Table 5 below summarizes the results of this netback analysis expressed in terms of the number of days between January 2004 and March 2006 when the netback to a WCSB producer was higher than the netback from California over GTN to Malin.

Table 5
WCSB Netback Price Summary

Destination	Percent of Days Netback to Destination is Higher Than Malin Based on Existing GTN Rates	
	January, 2004 to March, 2006	April, 2005 to March, 2006
Sumas	3%	7%
Chicago via Alliance	35%	57%
Chicago via Northern Border	84%	92%
Dawn	89%	98%
Niagara	81%	98%
Iroquois	85%	98%
New York	77%	95%
New England	67%	89%

As Table 5 indicates, with the exception of the Sumas path via Westcoast, on the majority of days since the beginning of 2004 the alternative routes out of the WCSB have been more economically attractive to producers than the path to California via the BC System and GTN, particularly during the last 12-month period April 2005 through March 2006. Excluding Sumas, the netback to the WCSB from Malin has been less than all the other alternatives on 34 percent of the days during the period since January 2004. The netback to Malin has been greater than all the other alternatives on only 8 percent of the days in the period January 2004 through March 2006. However, the netback to Malin

1 was not the highest netback of nine examined during the period April 2005 through
2 March 2006. Even the 8 percent of days during the period January 2004 through March
3 2006 do not appear to show any pattern or season. In the market concentration analysis
4 below, I incorporate the results of this netback analysis by considering a few alternative
5 market definitions that include various competitive paths out of the basin.

6 MARKET SHARE AND CONCENTRATION

7 **Q: How have you estimated market concentration and market share statistics for the**
8 **WCSB origin market?**

9 **A:** I have compiled publicly-available information concerning the quantity of capacity held
10 under firm contract by various entities on the pipelines accessible to producers in the
11 WCSB. I also consider storage injection connected to TransCanada's Alberta System to
12 be an alternative to transporting gas out of the WCSB to Malin on TransCanada's BC
13 System and GTN. While the owners of storage facilities in the WCSB contract
14 injection/withdrawal and capacity rights to third parties under unregulated prices, I have
15 conservatively assigned control of the injection capacity to the owner of the facility for
16 purposes of my HHI analysis.¹¹ Likewise, any unsubscribed pipeline capacity is assigned
17 to the owner of the pipeline, and like my destination market analysis, I consider the
18 capacity being turned-back to GTN by November 30, 2006 to be unsubscribed. In
19 accordance with FERC's guidelines, capacity held by affiliates is aggregated in the name
20 of the parent entity. In this case, all storage injection capacity in the WCSB, all pipeline
21 capacity out of the basin that is held by a TransCanada affiliate, or unsubscribed capacity
22 on a pipeline owned by TransCanada, was aggregated for the purpose of computing

1 market shares and the HHI. As in the case of the destination market analysis, I have
2 excluded capacity on the alternative routes that is held by downstream LDCs and
3 industrial end users on the grounds that this capacity may be committed to their own use
4 during peak periods.

5 **Q: Please elaborate on your treatment of storage facilities in your HHI analysis.**

6 A: As discussed above, the owners of storage facilities in the WCSB contract
7 injection/withdrawal and capacity rights to third parties under unregulated prices and
8 under contract terms that are not publicly available. It is the third-party that has
9 contractual rights to the storage capacity, controls the capacity for the duration of the
10 contract, and competes with a short-term service such as IT out of the WCSB. Therefore,
11 assigning control of all the injection capacity to the owner of the facility for purposes of
12 my HHI analysis overstates the amount of capacity the owner actually controls at any one
13 time, and overstates the owner's market share in my HHI analysis. For example,
14 TransCanada, which has ownership interests in two WCSB storage facilities, is attributed
15 a storage capacity share of 1.4 Bcf/d (which is the injection capability of the facilities) in
16 my HHI analysis, even though at any given time, a large portion of the injection capacity
17 is likely contracted to third-parties. EnCana Corporation is another entity owning storage
18 facilities with 2.5 Bcf/d of injection capability that, when treated as controlling all of its
19 storage capacity, results in a large market share being attributed to it. As discussed
20 further below, even a modest amount of widely dispersed contracting of the storage
21 capacity reduces the market shares of the storage owners and lowers the HHI statistics.

¹¹ Data are not publicly available to determine the identity of each storage contract holder and the quantity of storage capacity held by each contract holder for these facilities.

1 **Q: Please describe TransCanada's ownership of storage facilities connected to**
2 **TransCanada's Alberta System.**

3 A: TransCanada has ownership interests in two facilities connected to its Alberta System.
4 One storage facility, known as the CrossAlta or CrossField East #2 facility, is owned
5 60% by TransCanada and 40% by BP Canada Energy and has an injection capacity of
6 approximately 660 MMcf/d. The second storage facility is not yet in-service and is
7 known as the Big Eddy or Edson facility with a maximum injection capacity of
8 approximately 750 MMcf/d. I have conservatively included the sum of both of these
9 facilities in my HHI analysis as being controlled by TransCanada, which is a total of 1.4
10 Bcf/d out of the approximately 5 Bcf/d of storage injection capacity connected to
11 TransCanada's Alberta System. Even with two facilities attributed to TransCanada,
12 Encana Corporation which owns the AECO-C storage facility with injection capacity of
13 approximately 2.5 Bcf/d is the largest owner of storage in the WCSB.

14 **Q: What are the results of your concentration and market share analysis for the origin**
15 **market?**

16 A: Table 6 reports the concentration and market share results for the scenario in which all
17 routes out of the WCSB, including storage injection in Alberta, are considered to be
18 economic alternatives to GTN's full-haul IT service with the exception of the WestCoast
19 route to Sumas, which is excluded from the analysis. The resulting HHI is 1,690, and the
20 TransCanada market share is 36 percent (after all affiliated capacity and unsubscribed
21 GTN capacity is assigned to TransCanada). This result is below the FERC's threshold
22 for competitive concern. Exhibit No. GTN-69 attached to this testimony, presents the full
23 HHI analysis based on all routes out of the WCSB, including storage injection in Alberta,

are considered to be economic alternatives to GTN's full-haul IT service with the exception of the WestCoast route to Sumas.

Table 6**Origin Market HHI Analysis Summary**

Export Pipeline Capacity from WCSB and Storage Injection Capacity
(MMcf/d)

Capacity Holder	BC System/ GTN	TC Mainline	Foothills/ Northern Border	Alliance	WCSB Storage Injection	Total	Market Share	HHI
[a]	[b]	[c]	[d]	[e]	[f]	[g]=sum([b]-[f])	[h]=[g]/Total [g]	[i]=(h*100) ²
TransCanada/GTN	570	3,248	558	0	1,413	5,789	36%	1,269
<u>Other Large Holders</u>								
EnCana Corporation	62	39	171	63	2,500	2,835	17%	304
BP	7	381	422	65	0	875	5%	29
Cargill Inc.	73	499	228	0	0	800	5%	24
Nexen	20	560	156	15	0	751	5%	21
All Other Capacity Holders	705	1,475	726	1,295	999	5,201	32%	42
Totals:	1,436	6,202	2,261	1,438	4,912	16,251	100%	1,690

Note: "All Other Capacity Holders" in the above table are treated individually in the HHI calculation.

Q: How sensitive are these results to the inclusion of the furthest eastern paths out of the basin on TransCanada's Mainline?

A: The results are not very sensitive to the inclusion of the paths to the markets furthest east of the WCSB. Table 7 reports the results based on the assumption that the only economic alternatives out of the basin are to storage injection or to Chicago via the Alliance or Foothills/Northern Border paths. The resulting HHI is 1,514 and the TransCanada market share is 25 percent. Exhibit No. GTN-70 attached to this testimony, presents the full HHI analysis based on this scenario.

Table 7

Origin Market HHI Analysis Summary
Export Pipeline Capacity from WCSB and Storage Injection Capacity
(MMcf/d)

Capacity Holder	BC System/ GTN	Foothills/ Northern Border	Alliance	WCSB Storage	Total	Market Share	HHI
TransCanada/GTN	570	558	0	1,413	2,542	25%	640
<u>Other Large Holders</u>							
EnCana Corporation	62	171	63	2,500	2,796	28%	774
BP	7	422	65	0	494	5%	24
ATCO Group	0	0	0	369	369	4%	13
Husky Energy	11	116	10	180	317	3%	10
All Other Capacity Holders	786	994	1,300	450	3,530	35%	52
Totals:	1,436	2,261	1,438	4,912	10,048	100%	1,514

Note: "All Other Capacity Holders" in the above table are treated individually in the HHI calculation.

Q: What scenarios of control of available alternatives to full-haul IT on GTN's system would you have to believe exist to see an HHI statistic greater than 1,800 in the origin market?

A: There are three scenarios of alternatives to full-haul IT on GTN's system that produce HHIs greater than 1,800. None of these scenarios is realistic, but they give one a feel for what one has to believe about the control of origin market capacity for there to be any conceivable concentration problem. The first scenario is that the only alternative to GTN's full-haul IT service is released capacity on GTN's system (or spot purchases of gas in the basin by GTN capacity holders). The second scenario is that injection into storage in the WCSB and transportation on TransCanada's mainline to eastern Canada and the northeast United States are the only alternatives to full-haul IT on GTN's system. The third scenario is that injection into storage in the WCSB is the only alternative to full-haul IT on GTN's system. While the conservative manner in which I have assigned control of the capacity in each of these scenarios produces HHIs greater than 1,800, the resulting market shares and HHI statistics do not provide a realistic indication of GTN/TransCanada's market share nor do they provide a realistic indication of GTN's

1 ability to raise prices above the maximum tariff rate given the substantial unsubscribed
2 capacity on GTN and the available recourse of contracting for firm capacity on GTN.

3 **Q: With respect to the first scenario mentioned, what would happen to the results if, at**
4 **some point in the future, netbacks to the WCSB were to change such that none of**
5 **the alternative pipelines out of the basin were economic, and that the only feasible**
6 **alternative to GTN's full-haul IT service via the BC System out of the basin was**
7 **released capacity on that path?**

8 **A:** As Table 8 shows, if the only alternative was capacity release on GTN (or spot purchases
9 by GTN capacity holders in the basin), the HHI is 1,828 and TransCanada's market share
10 is 40 percent. This result is due to the amount of unsubscribed capacity on GTN that can
11 be sold as IT. However, as discussed above, if GTN were to sell this capacity as firm
12 capacity, an option available to potential purchasers of full-haul IT service, its market
13 share and the HHI would decrease. Exhibit No. GTN-71 attached to this testimony,
14 presents the full HHI analysis based solely on capacity holders on GTN's system being
15 alternatives to full-haul IT on GTN.

Table 8
Origin Market HHI Analysis Summary
Export Pipeline Capacity from WCSB
(MMcf/d)

Capacity Holder	BC System/ GTN	Market Share	HHI
TransCanada/GTN	570	40%	1,574
<u>Other Large Holders</u>			
Anadarko Petroleum Corporation	109	8%	58
Sempra Energy	93	7%	42
Calpine Corporation	84	6%	35
Cargill Inc.	73	5%	25
All Other Capacity Holders	507	35%	95
Totals:	1,436	100%	1,828

Note: "All Other Capacity Holders" in the above table are treated individually in the HHI calculation.

Q: Please describe the second and third scenarios you mention, that have storage injection and TransCanada's mainline as alternatives to full-haul IT on GTN's system.

A: The second scenario is that injection into storage in the WCSB and transportation on TransCanada's Mainline to eastern Canada and the northeast United States are the only alternatives to full-haul IT on GTN's system, which produces an HHI of 2,259 and a TransCanada market share of 42 percent as shown in Table 9 and Exhibit No. GTN-72. In this scenario, the Midwest United States would not be an attractive destination for producers in the WCSB. The third scenario is that injection into storage in the WCSB is the only alternative to full-haul IT on GTN's system, which produces an HHI of 2,684 and a TransCanada market share of 31 percent as shown in Table 10 and Exhibit No. GTN-73.

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Table 9
Origin Market HHI Analysis Summary
Export Pipeline Capacity from WCSB and Storage Injection Capacity
(MMcf/d)

Capacity Holder	BC System/ GTN	TC Mainline	WCSB Storage Injection	Total	Market Share	HHI
[a]	[b]	[c]	[d]	[e]=sum([b]:[d])	[f]=[e]/Total [e]	[g]=([f]*100) ²
TransCanada/GTN	570	3,248	1,413	5,231	42%	1,737
<u>Other Large Holders</u>						
EnCana Corporation	62	39	2,500	2,601	21%	429
Nexen	20	560	0	580	5%	21
Cargill Inc.	73	499	0	572	5%	21
Husky Energy	11	238	180	430	3%	12
All Other Capacity Holders	701	1,617	819	3,138	25%	39
Totals:	1,436	6,202	4,912	12,551	100%	2,259

Note: "All Other Capacity Holders" in the above table are treated individually in the HHI calculation.

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Table 10
Origin Market HHI Analysis Summary
Export Pipeline Capacity from WCSB and Storage Injection Capacity
(MMcf/d)

Capacity Holder	BC System/ GTN	WCSB Storage Injection	Total	Market Share	HHI
[a]	[b]	[c]	[d]=sum([b]:[c])	[e]=[d]/Total [d]	[f]=([e]*100) ²
TransCanada/GTN	570	1,413	1,983	31%	976
<u>Other Large Holders</u>					
EnCana Corporation	62	2,500	2,562	40%	1,628
ATCO Group	0	369	369	6%	34
EnStor	0	257	257	4%	16
Unocal	0	194	194	3%	9
All Other Capacity Holders	805	180	985	16%	21
Totals:	1,436	4,912	6,349	100%	2,684

Note: "All Other Capacity Holders" in the above table are treated individually in the HHI calculation.

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Q: Do these second and third scenarios provide realistic indications of TransCanada's market share and ability to increase prices?

A: No. The large market share attributed to TransCanada is due to the large volume of unsubscribed and unutilized capacity on TransCanada's Mainline and TransCanada's

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11

1 ownership of storage facilities in the WCSB. The HHI statistics greater than 1,800 are
2 primarily due to the assumption that the owner of the storage facilities controls 100
3 percent of the storage capacity, and that no capacity is held under contract to third-
4 parties. If as little as 33 percent of TransCanada's and EnCana's storage capacity is
5 widely dispersed by contracts to third-parties, the HHI statistics in both scenarios falls
6 below 1,800. Therefore, even assuming the owners of the storage facilities control 67
7 percent of the storage injection capacity, which is a strong assumption, the HHI statistic
8 would be below 1,800 in these scenarios of alternatives to IT on GTN.

1 **Q: Please discuss the impact of the availability of firm service as a recourse service on**
2 **the interpretation of the market share and HHI statistics you calculate.**

3 A: As stated above, any unsubscribed pipeline capacity is assigned to the owner of the
4 pipeline, and like my destination market analysis, I consider the capacity being turned-
5 back to GTN by November 30, 2006 to be unsubscribed. This turned-back capacity on
6 GTN, along with existing unsubscribed capacity on GTN, results in over 500 MMcf/d
7 being attributed to Transcanada/GTN in each of the market share and HHI scenarios I
8 examine, including the one in Table 10 that narrows the competitive alternatives to full-
9 haul IT on GTN to non-LDC/end-user holders of firm capacity on GTN. It is this
10 treatment of unsubscribed capacity that results in the high Transcanada/GTN market
11 share and HHI in Table 8 and other HHI scenarios. However, if GTN were to attempt to
12 charge a price greater than the capped cost-based firm tariff rate for a sustained period of
13 time, shippers have the recourse of contracting for firm service at a lower rate, thereby
14 curtailing GTN's ability to sustain a higher price for full-haul IT. As more third-parties
15 enter into firm contracts on GTN, Transcanada/GTN's unsubscribed capacity would
16 decrease, thereby decreasing its market share and lowering the HHI statistics calculated
17 above.

18 **DIRECT EVIDENCE OF AVAILABILITY OF SUBSTITUTES**

19 **Q: What evidence do you have that the capacity held by shippers other than LDCs and**
20 **industrial end users would actually be available as an alternative to GTN's full-haul**
21 **IT service?**

22 A: I have compiled data on capacity release on GTN and capacity assignment on the
23 Canadian pipelines to examine the extent to which such shippers have historically made
24 capacity available to others and there appears to be a significant quantity of capacity

1 release that is routinely released. As shown in Table 11, for the 14-month period January
2 2005 through February 2006,¹² the quantity of released capacity with Kingsgate as the
3 origin point on GTN averaged approximately 48 percent of the firm capacity on GTN
4 included in my origin market HHI analyses above (which exclude capacity held by LDCs
5 and end-users). The minimum and maximum quantity released during a month was 37
6 percent and 56 percent, respectively, of the firm capacity on GTN included in my origin
7 market HHI analyses. Like the capacity release data for deliveries to Malin on GTN, the
8 quantity released over the 14-month period with the origin at Kingsgate was relatively
9 constant, with the minimum amount occurring in February 2005, and the maximum
10 amount occurring in June 2005 as shown in the detailed table attached as Exhibit No.
11 GTN-74. Also of note is the fact that LDCs and end-users that hold capacity on GTN's
12 system released an average of 300,000 MMbtu/d, with a minimum of 190,000 MMbtu/d
13 during the 14-month period, which suggests that the exclusion of all of the firm capacity
14 held by LDCs and end-users from the origin market HHI analyses is conservative. This
15 large quantity of capacity released by the LDCs and end-users excluded from my origin
16 market HHI suggests that these end-users have over-contracted for transportation. It is
17 not then surprising then that there is a significant quantity of capacity being turned-back
18 to GTN.

¹² I have excluded all capacity release terms that are greater than one year from my analysis of capacity release.

Table 11

GTN Capacity Release Summary - Receipt Point Kingsgate Summary for the Period Jan. 2005 through Feb. 2006 (MMBtu/d)				
		Average Released Quantity During a Month		
		Minimum	Maximum	Average
[1]	Total Capacity Release for Shippers Included in HHI Analysis	75,876	142,551	108,602
[2]	Total Capacity Release for LDCs/End-Users Excluded from HHI Analysis	193,528	356,742	312,570
[3]	Total Capacity Release	326,746	494,017	421,172
[4]	Firm Capacity Included in HHI Analysis	881,123	881,123	881,123
[5]=[3]/[4]	Released Capacity as a Percentage of Firm Capacity Included in HHI Analysis	37%	56%	48%

Source: Capacity Release Data From Platts

With respect to the alternative pipelines transporting natural gas out of the WCSB, for the period January 2005 through February 2006, capacity release activity was very consistent on TransCanada's Mainline, but varied on Alliance and the Foothills/Northern Border pipelines to Chicago and the United States Midwest. As shown in Table 12 and Exhibit No. GTN-75, the quantity of released capacity on TransCanada's Mainline to eastern Canada and the northeast United States. consistently ranged from 19 to 25 percent of the firm capacity included in my origin market HHI analyses (which excludes LDCs and end-users) during the 14-month period.

Table 12

TransCanada Mainline Capacity Release - From Receipt Pt. Empress Summary for the Period Jan. 2005 through Feb. 2006				
		Average Released Quantity During a Month		
		Minimum	Maximum	Average
[1]	Total Temporarily Assigned Capacity Release	601,308	783,300	674,183
[2]	Firm Capacity Included in HHI Analysis	3,135,897	3,135,897	3,135,897
[3]=[1]/[2]	Released Capacity as a Percentage of Firm Capacity Included in HHI Analysis	19%	25%	21%

Source: Capacity Release Data From TransCanada

As shown in Table 13 and Exhibit No. GTN-76, the quantity of released capacity on the Alliance and Foothills/Northern Border pipelines to Chicago and the United States Midwest averaged 8 percent of the firm capacity included in my origin market HHI analysis and varied from a minimum of 4 percent to a maximum of 18 percent. This low

level of capacity release on the Alliance and Northern Border pipelines is likely a result of the netback to Chicago being consistently one of the best netbacks from the WCSB during the period January 2005 through February 2006, conditions that suggest high capacity utilization and therefore, fewer capacity release transactions.

Table 13

Alliance and Northern Border Capacity Release Summary Summary for the Period Jan. 2005 through Feb. 2006 (MMbtu/d)				
		Average Released Quantity During a Month		
		Minimum	Maximum	Average
[1]	Total Capacity Release for Shippers Included in HHI Analysis	81,343	288,649	144,088
[2]	Total Capacity Release for LDCs/End-Users Excluded from HHI Analysis	25,216	242,397	85,950
[3]	Total Capacity Release	106,559	531,046	230,037
[4]	Firm Capacity Included in HHI Analysis	2,994,416	2,994,416	2,994,416
[5]=[3]/[4]	Released Capacity as a Percentage of Firm Capacity Included in HHI Analysis	4%	18%	8%

Source: Capacity Release Data From Platts

Q: Are there other relevant factors that the Commission should consider in evaluating the risk to the origin market of permitting GTN to charge market-based rates for full-haul IT service?

A: Yes. As discussed in the Prepared Direct Testimony on Leslie Ferron-Jones (Exhibit No. GTN-26), production in the WCSB has not been increasing and pipeline capacity exporting from the WCSB average approximately 2.5 Bcf/d of unutilized capacity, with a minimum of approximately 700 MMcf/d of unutilized capacity during the period April 2005 through March 2006. This level of unutilized capacity suggests that there is not demand for the substantial unsold capacity on GTN (566 MMcf/d) as well as TransCanada's Mainline (approximately 3.0 Bcf/d) that is included in my HHI analysis, and therefore, the market shares attributed to TransCanada reflecting the unsold/unutilized capacity are conservatively high.

Q: What do you conclude with respect to the origin market analysis?

1 A: Like the analysis for the destination market, the market concentration analyses in the
2 origin market indicate that there exist sufficient competitive alternatives to full-haul IT on
3 GTN such that GTN would not have the ability to sustain an increase in price. Market
4 concentration in the origin market as measured by the HHI statistic ranges from 1,514 to
5 1,690 (with a GTN/TransCanada market share of 25 to 36 percent) depending on whether
6 one includes the available capacity on TransCanada's Mainline to the east in the relevant
7 market. These market concentration results are conservatively calculated and include the
8 assumption that the owner of a storage facility in the WCSB controls all of that facility's
9 capacity. The additional evidence of significant unutilized capacity on GTN and other
10 pipelines transporting gas out of the WCSB, as well as active capacity release behavior
11 by firm contract holders, particularly on GTN and TransCanada's Mainline, indicates that
12 GTN does not have the ability to exercise market power over full-haul IT transportation
13 given current demand conditions in the origin market.

14 **Q: What is your overall conclusion with respect to GTN's application for market-based**
15 **rates for its full-haul interruptible service?**

16 A: The analysis shows, and I conclude, that the destination and origin markets in which
17 GTN's full-haul interruptible transportation services compete are sufficiently
18 unconcentrated, with a low enough GTN market share, and with sufficient alternatives
19 available to GTN's full-haul IT customers, that the Commission can safely approve
20 GTN's market-based rate application for full-haul IT service to Malin, Oregon.

21 **Q: Does this conclude your prepared direct testimony?**

22 A: Yes, it does.