

NOVA Gas Transmission Ltd.

NGTL 2004 GRA - Phase 1
Application No. 1315423
Response to CAPP-NGTL-005(d)
December 11, 2003
Page 1 of 3

CAPP-NGTL-005(d)

REVISED ~~February~~March 8, 2004

Issue:

Supply and Throughput

Reference:

2004 General Rate Application Phase 1, Volume 1, Section 4, Appendix A, Supply Study

Request:

If not already provided, for the base case, low case, high case and “with Alaska” case please show the Alberta system gas supply and the gas supply assumed for the other pipelines serving Western Canada. Please explain the allocation procedures as among NGTL and the other pipelines and please provide all data.

Response:

NGTL develops a "bottom up" supply forecast for the Alberta System using an engineering/economic supply model as described in Section 4, Appendix A of NGTL's written evidence. A supply forecast is determined at each NGTL receipt station based on the established and undiscovered resource potential available at the individual stations as discussed below. Therefore an allocation of gas production in Alberta to ATCO and other intra-basin pipelines is not required other than at a few meter stations that are dually connected to Alliance (28 stations) and ATCO (10 stations). The Alliance and Duke pipelines are assumed to be highly utilized as both pipelines serve markets that provide high netbacks. The flows on Alliance, Duke and other pipelines are provided, for the Base and Low Cases, in Attachments 1 and 2 to CAPP-NGTL-005(d). As per the February 2004 Update, the information is provided for the “with Alaska” case in Attachment 3 CAPP-NGTL-005(d). [The information for the high case is provided in Attachment 4 CAPP-NGTL-005\(d\).](#)

The following steps describe the process used to determine the BC/NWT supply and Alberta supply that is expected to flow on the Alberta System:

1. Established reserves and reserve additions in Alberta are assigned to the Alberta System receipt points based on a “proximity” assessment. All undiscovered potential

in a township that is currently connected to the Alberta System is assigned to the Alberta System, which includes the dually connected stations.

2. The resulting supply forecast is allocated between the Alberta System and other dually connected stations in the following manner.
 - The Alliance pipeline is kept fully utilized (as per the methodology discussed later in this response).
 - ATCO stations that are dually connected are assumed to flow at rates, which are based on historical patterns.

The aggregate flows for the dually connected stations are provided for ~~the Base and Low Cases~~ all cases in an attached spreadsheet.

3. The BC/NWT supply that is expected to flow on the Alberta System is based on the following:
 - The Duke pipeline is kept full.
 - Alliance is assumed to flow approximately 300 MMscf/d of B.C. supply.
 - The Alberta System is currently connected directly to B.C. supply at 18 receipt stations. A supply forecast is developed at each of these stations.
 - The remaining B.C. supply is expected to flow on the Alberta System at the Gordondale receipt point, which is used as a proxy connection point on the system.

Below is a description of how gas volumes are allocated to WCSB export pipelines.

All supply, whether sourced from the WCSB or from the North, is aggregated and then deemed to be available to meet Western Canada demand as well as flow on exporting pipelines. The specific methodology is as follows:

1. Aggregate the sources of supply in Western Canada (WCSB conventional, unconventional and in some cases Northern gas transported into Western Canada via new pipelines from the north).
2. Subtract the demand in Western Canada to yield the volume available for transport from Western Canada (exports); allocate exports among pipelines in the following order:
 - Firm transportation contracts.
 - Pipelines with highest netbacks to Western Canada.
 - Apply historical utilization factors to set upper limit of flow on each pipeline.
3. The TransCanada Mainline is the swing pipeline exporting gas from Western Canada therefore it receives the balance of gas after the addition of new capacity.

4. Estimate required pipeline capacity additions to keep overall pipeline utilization from Western Canada at or about 90% (new pipeline capacity is forecast to come into service with 15 year firm contracts).
5. Allocate any remaining export volumes to the Mainline.
6. When Western Canadian gas exports begin to decline, throughput on all pipelines not protected by long-term firm transportation contracts declines proportionally to their share of exports. Thus flows on all pipelines without contract protection decline by the same percentage from year to year.

NGTL High Case

	Volumes in Bcf/d		Dually Connected MS Allocation	
	ATCO (10 stations)	NGT at ATCO	Alliance (28 stations)	NGT at Alliance
2002	0.21	0.42	1.35	0.83
2003	0.25	0.34	1.57	1.11
2004	0.23	0.38	1.53	1.34
2005	0.22	0.39	1.53	1.45
2006	0.21	0.32	1.53	1.63
2007	0.18	0.16	1.53	2.07
2008	0.17	0.16	1.53	2.20
2009	0.18	0.18	2.02	1.48
2010	0.18	0.19	2.02	1.52
2011	0.19	0.20	2.02	1.60
2012	0.19	0.20	2.02	1.65
2013	0.20	0.20	2.02	1.71
2014	0.20	0.19	2.02	1.61
2015	0.20	0.20	2.02	1.60
2016	0.20	0.21	2.02	1.71
2017	0.20	0.21	2.02	1.76
2018	0.20	0.20	2.02	1.73
2019	0.19	0.18	2.02	1.68
2020	0.19	0.16	2.02	1.59
2021	0.18	0.16	2.02	1.48
2022	0.17	0.16	2.02	1.39
2023	0.16	0.16	2.02	1.25
2024	0.16	0.15	1.98	1.16
2025	0.15	0.13	1.95	1.04
2026	0.15	0.12	1.85	1.00
2027	0.14	0.16	1.76	1.11

NGTL High Case Allocation

Volumes in Bcf/d

	NGTL WCSB	NGTL Mackenzie	Alliance WCSB	Duke	Other*
2002	11.3	0.0	1.5	1.6	2.4
2003	11.4	0.0	1.7	1.5	2.3
2004	11.5	0.0	1.6	1.6	2.5
2005	11.7	0.0	1.6	1.8	2.6
2006	12.1	0.0	1.6	1.8	2.6
2007	12.5	0.0	1.6	1.8	2.5
2008	13.0	0.0	1.6	1.8	2.5
2009	12.6	1.6	2.1	2.0	2.6
2010	12.8	1.6	2.1	2.0	2.6
2011	13.2	1.6	2.1	2.0	2.5
2012	13.5	1.6	2.1	2.0	2.6
2013	14.0	1.6	2.1	2.0	2.7
2014	14.1	1.6	2.1	2.0	2.7
2015	14.2	1.6	2.1	1.9	2.7
2016	14.2	1.6	2.1	1.7	2.8
2017	13.9	1.6	2.1	1.5	3.0
2018	13.6	1.6	2.1	1.4	3.2
2019	13.1	1.6	2.1	1.2	3.2
2020	12.4	1.6	2.1	1.0	3.2
2021	12.0	1.6	2.1	1.0	2.5
2022	11.5	1.6	2.1	0.9	2.0
2023	10.9	1.6	2.1	0.9	1.7
2024	10.2	1.6	2.1	0.9	1.6
2025	9.4	1.6	2.1	0.9	1.8
2026	8.8	1.6	2.0	0.8	1.9
2027	8.4	1.6	1.9	0.8	1.9

Notes: WCSB volumes include conventional plus unconventional.
 Mackenzie Delta volumes are conventional only.
 * includes ATCO, AltaGas, TransGas, etc.