

## LETTER NO. L-59-07

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VIA E-MAIL regulatory.affairs@terasengas.com

July 11, 2007

Mr. Scott Thomson Vice President, Finance and Regulatory Affairs Terasen Gas Inc. 16705 Fraser Highway Surrey, BC V3S 2X7

Dear Mr. Thomson:

# Re: Terasen Gas (Vancouver Island) Inc. 2007/08 Annual Gas Contracting Plan

On June 11, 2007, Terasen Gas (Vancouver Island) Inc. ("TGVI") filed its 2007/08 Annual Gas Contracting Plan ("2007/08 ACP"). The primary objectives of TGVI's ACP are consistent with previous years' filings and are comprised of the following two objectives:

- 1. To contract for cost-effective supply resources that ensure safe and reliable natural gas deliveries to meet Core customer design peak day while militating against upstream and downstream supply disruptions.
- 2. To develop a portfolio resource mix with price diversity that incorporates contracting flexibility for both short and longer-term planning.

TGVI utilizes pipeline capacity, storage resources, commodity purchases, hedging and resale activities as outlined within this ACP. The Commission accepts the 2007/08 ACP and the major components as outlined in detail, in the confidential document on pages 28 to 31. A summary is as follows:

- 1. The peak day is to increase from 107.9 TJ/d in 2006/07 to 108.7 TJ/d in 2007/08 or an increase of 0.7% (excluding system gas and fuel).
- 2. TGVI's transportation portfolio for 2007/08 has not changed from the current contract year.
- 3. Station 2 baseload supply will be replaced with seasonal contracts to gain greater flexibility. Huntingdon winter exposure to be limited but peaking supply to be the same as last year.
- 4. TGVI renegotiating a replacement with TGI for Aitken Creek storage in early 2008. The Mist storage agreements and strategy will be applied as described on page 30 and 31 of the ACP.

The information exclusive of the Executive Summary will be treated as confidential. All individual gas supply contracts and amendments will continue to be filed in a timely manner pursuant to Section 71 of the Utilities Commission Act. TGVI will continue to be expected to justify that each contract is consistent with meeting the needs of the core customers at the lowest cost and will also be required to file a report with the Commission at the end of the 2007/08 ACP that will analyse whether the objectives of the plan have been met.

A copy of the non-confidential 2007/08 ACP Executive Summary is attached.

Yours truly,

Original signed by

Robert J. Pellatt

RJP/dg Attachment



# EXECUTIVE SUMMARY

## 1 INTRODUCTION

This document outlines the 2007/08 Annual Contracting Plan ("ACP") for Terasen Gas (Vancouver Island) Inc. ("TGVI"). Over time, the form and content of the ACP have evolved to reflect both the results of on-going discussions with the British Columbia Utilities Commission (the "Commission") about special topics of interest, and the changing gas contracting environment.

## 1.1 Objectives of the 2007/08 ACP

The primary objectives of TGVI's ACP are consistent with previous years' filings and are comprised of the following two objectives:

- 1. To contract for cost-effective supply resources that ensure safe and reliable natural gas deliveries to meet core customer design peak day while mitigating upstream and downstream supply disruptions.
- 2. To develop a portfolio resource mix with price diversity that incorporates contracting flexibility for both short-term and longer-term planning.

TGVI must not only meet peak design day demand but also manage higher than normal winter loads over extended periods, and mitigate any interruptions in delivery capacity related to both transportation and storage. While its customers and the Commission expect TGVI to procure and deliver natural gas in the most cost-effective manner possible, TGVI holds the responsibility to identify, monitor and mitigate potential operational and market-related risks. These objectives of cost effectiveness while meeting reliability, diversity and flexibility can at times be competing with one another.

A simple example can be illustrated in the case of holding T-South pipeline capacity on the Spectra Energy ("Westcoast") system. In any given year, the forecast price of buying gas directly at Huntingdon may be less than the cost of paying for the pipeline capacity and purchasing gas at Station 2. So viewed in isolation, in any one year it may not appear cost effective to hold T-South pipeline capacity. The forward difference between Station 2 and Huntingdon prices is a forecast based on the market perception of the availability of pipeline capacity. However, holding pipeline capacity allows TGVI to access broader markets for supply. It also allows greater flexibility in contracting such as including Aitken Creek storage or Alberta supply. Holding the capacity also gives greater assurance that supply can be contracted over the long term even when markets tighten. In this way a cost effective objective would appear to compete with the objectives of reliability and diversity. However, during times when markets do tighten and the value of pipeline capacity rises, these objectives can also be aligned in the case of purchasing pipeline capacity.

The optimal portfolio that is selected is based on a balance of resources that combines the objectives of the plan. The portfolio selected each year is based on selecting the lowest cost option and is based on market data available to TGVI at that time. However as anyone would expect, due to the many factors that go into it, the market for natural gas is always changing. So even though a portfolio was planned to be the most cost effective, viewed in hindsight there may have been other options that were lower cost. For example in a warm winter, the price of natural gas may not be much different than the price in the summer and so in hindsight it may not have been as cost effective to hold storage versus purchasing supply each day. Alternatively, in a cold winter or a winter where there are supply problems, it may have been better to seek a portfolio with more storage and less direct purchase on the day.



TGVI currently diversifies its supply portfolio by sourcing gas from a combination of two market hubs: Huntingdon and Station 2. TGVI's gas supply requirements are reviewed both on a peak day and annual demand basis for firm sales customers, including system usage. System usage includes TGVI system requirements including compressor and meter station fuel.

# 2 CONTRACTING STRATEGY

The contracting strategy of TGVI is based on the peak day demand forecast for the service region. A portion of that peak day demand is met by seasonal and winter baseload storage supply which is based on the normalized annual demand and the remaining portion of peak day demand is met through peaking supply and downstream storage. Due to the peaky nature (increased demand for only a few days during the winter season) of load duration, TGVI's portfolio plays a vital role in meeting the primary objectives of the 2007/08 ACP as discussed above. The contracting strategy for the portfolio includes a combination of monthly and daily priced supply for price diversification and daily mitigation.

# 2.1 Peak Day Demand Forecast

TGVI's forecast 2007/08 peak day supply requirement is estimated at 108,680 GJ/d (excluding system gas and fuel) which equates to approximately 112,000 GJs when system gas and fuel are included at Huntingdon. The peak day demand was derived by estimating the relationship between weather and firm sendout, and then applying the design day temperature of -10.7 degrees Celsius along with the projected firm customer attachments. The load duration curve shown below was developed to project gas purchase requirements using the daily estimated demand on a design year basis.





TGVI's forecasted peak day increased by 0.7% in 2007/08 over 2006/07. Growth on Vancouver Island continues to be relatively strong as shown in Table 1 with the peak day forecast to grow at a rate of 3% per year over the next five years. Ongoing strong growth means that TGVI transmission system capacity limitations continue to be an issue. As well, the absence of any form of on-system peaking supply continues to present challenges in contracting for supply, and mitigating price and supply risk.



Table 1: TGVI five year forecasted peak day

Contract Year	2007-08	2008-09	2009-10	2010-11	2011-12
Peak Day (TJs)	108.7	111.8	115.1	118.5	121.8
Change over previous year	-	3.1	3.4	3.4	3.3
% Change over previous year	-	3%	3%	3%	3%

## 2.2 TGVI Portfolio Overview: 2007-08

TGVI's annual evaluation of its portfolio considers critical factors such as security of supply, reliability, delivered cost of supply, and availability of alternative incremental resources as the fundamental drivers in determining the most viable options. For 2007-08, TGVI's portfolio has remained largely unchanged from the previous year and consists of the following options:

- 1. Huntingdon Supply
- 2. Station 2 Supply
- 3. Seasonal Storage (Typically for 151 days of Winter season)
- 4. Downstream Storage (Typically for 15-40 days during winter)

The table below compares the recommended peak day portfolio for 2007/08 to the actual supply mix for 2006/07, accompanied by an analysis of the resulting variances.



# Terasen Gas (Vancouver Island) Inc.

Peak Day Supply Portfolio for 2007/08

	2006-07	2007/08		
SUPPLY PORTFOLIO (TJ/day)	Actuals	Porfolio	Variance	Variance Analysis
Station 2 (T-South = 41.8 TJ/d)				
Baseload	0.0	0.0	0.0	
Seasonal	27.3	27.3	0.0	
Aitken Creek Storage (151-day)	13.1	13.1	0.0	
Total Station 2 Supply	40.4	40.4	0.0	
Huntingdon				
Spot purchase / linepack	2.5	2.5	0.0	Peak day spot purchase or withdrawal from linepack - (not purchased in 06/07)
Seasonal	15.1	15.1	0.0	
Peaking	24.7	24.7	0.0	
Total Huntingdon Supply	42.4	42.4	0.0	
Downstream Storage				
Mist	25.2	25.2	0.0	
Total Off-System Resources	108.0	108.0	0.0	
On-System Peaking Resources	-	-	-	
Total Resources (TJ/day)	108.0	108.0	0.0	
Peak Day Demand (TJ/day)	107.9	108.7	0.8	Difference mainly due to customer growth partially offset by lower use per customer
TGVI System Capacity:				
TGVI Core Capacity to Island	93.5	96.9	3.4	Increase in system capacity due to lower firm cd of Joint Venture mills
Peaking Capacity from BC Hydro	19.0	19.0	0.0	Current peaking contract expires Dec 31, 2007 - new agreement to be negotiated
Total Capacity to Island Available to TGVI	112.5	115.9	3.4	

#### <u>Notes</u>

#### All volumes are delivered after system fuel gas

TGVI will continue to evaluate resource options as better market information unfolds related to availability and pricing of alternatives, basis differentials, and other relevant developments. Any



significant deviation from the proposed portfolio outlined in this ACP will be promptly filed with the Commission for re-approval at a future date.

TGVI requests Commission approval for the following proposed recommendations and changes for the 2007/08 contract year:

- TGVI recommends increasing the forecasted peak day for use in its ACP, in 2007/08 over 2006/07, to 108.7 TJ/d from 107.9 TJ/d (net delivered to customers after all system and fuel gas) – a 0.7% growth.
- 2. Gas supply from various markets will be negotiated as outlined in greater detail within the confidential sections of the 2007/08 ACP.
- 3. TGVI recommends the renewal of storage contracts and third party redelivery service which expire or require notice to extend prior to the submission of the 2008/09 ACP, as outlined in greater detail within the confidential sections of the 2007/08 ACP.

## 3 MARKET OVERVIEW

The North American energy market continues to experience high levels of volatility both in the natural gas and crude oil sectors. Factors that resulted in bearish outlook for natural gas during the winter of 2006-07 included healthy storage inventories, a slowdown in the US economy and an in-active hurricane season.

Natural gas production has almost flattened over the past few months and is expected to grow at a slow pace over the next year. The resource base has matured and conventional resources are no longer as productive as they once were. Lower gas prices in 2006/07 in combination with rising completion costs have resulted in producers cutting exploration budgets. The current rig counts in Canada reflected a decrease of 318 rigs year over year. With gas production in North America flattening, imported LNG is expected to play an important role in meeting increased demand. Currently, about 9.6 Bcf/d of new regasification capacity is under construction in North America, which is expected to grow in the coming years. However, the key to increasing LNG imports is availability of supply. Having less optionality, it is becoming apparent that European and Asian markets will compete for this supply, leaving North America as a swing LNG market.

The largest factor influencing the growth in demand for natural gas continues to be increasing demand from gas-fired electric generation. This has put the upward pressure on natural gas prices as demand for electricity continues to grow in North America in line with economic growth. Currently, natural gas fired generation provides one of the few environmentally acceptable methods of meeting that growth both through higher utilization of existing facilities and through the development of new facilities.

## 3.1.1 Regional Supply-Demand Balance

Several key market fundamentals, both short-term and long-term, could potentially affect natural gas prices in 2007/08. Factors such as fuel switching, prices of competing fuels, LNG diversions, production shut-ins, storage inventories and weather could affect the supply-demand balance, generally setting short-term prices. The supply-demand balance can be altered by the impact of investment decisions in the long run, which in turn affects the current short-run market balance putting upward or downward pressure on natural gas prices.

The current regional planning context is characterized by the need to establish strategies which secure long-term supply and develop storage and natural gas pipeline infrastructure to maintain resource adequacy in the Pacific Northwest. The 2006 Northwest Gas Association ("NWGA")



Outlook Update identifies the key challenges relating to regional supply-demand balances and pricing dynamics including expected growth and changing nature of regional demand, increased competition for supply, and lagging development of new resources.

### 3.1.1.1 Regional Supply Update





As illustrated above, due to additions of new and proposed pipeline infrastructure (Alliance, Ekwan, AltaGas and Westcoast), producers in BC have a greater opportunity and flexibility to move their gas into Eastern markets. In addition, more gas is currently flowing north into the Pacific Northwest ("PNW") than in the past as a result of depressed pricing in the Rockies, which is further compounding the reduction of flows on the Westcoast system. As a result, Westcoast has faced increasing levels of de-contracting on T-South over the past couple of years.

During the cold snap last year from November 23, 2006 to November 30, 2006, linepack integrity on the Westcoast system was lost. Pressures dropped 50 psig below the contract minimum of 500 psig on November 28 (the coldest day) for an eight hour period. The Terasen Gas Inc. ("Terasen Gas" or "TGI") pipeline system, through which gas is delivered onto the TGVI system, is designed on the assumption that pressure on the Westcoast system will be maintained above the minimum requirement of 500 psig. During the period that Westcoast pressures were below contract minimum, TGI was forced to use the Tilbury LNG facility to maintain TGI system integrity, although there was no impact upon TGVI.

Several locations have been proposed for LNG import terminals in the PNW, including two in British Columbia (Kitimat and Prince Rupert), and in Oregon (Bradwood Landing, Port Westward, Skipanon Natural Gas Facility, Tansy Point, and Jordan Cove). Kitimat and Prince Rupert LNG facilities would compete with Station 2 supply sources in the PNW market. Although these projects are currently in the very preliminary stages, they represent possible supply options for 2011 and beyond. Import LNG would likely take the form of a new baseload supply source similar to Station 2 or AECO sourced supply.

Supply into the region is getting tighter year over year and producers have been focused on building optionality and access to markets in Eastern North America. The market at Station 2 has become less liquid with fewer counterparties present and a focus on short term transactions versus long term. As TGVI sources 100% of its gas through Station 2 and Sumas, it continues to monitor this market with a view to looking for opportunities to diversify its supply and ensure long term reliability.

## 3.1.1.2 Regional Demand Update

In its recent Outlook Study, NWGA projects demand for natural gas in the region to grow at a rate of 2.1% per year with a cumulative projected growth rate of 8.1% over the next five years. The industry



consensus is an expectation of a change in the region's load shape resulting from higher demand growth in the residential and commercial segment relative to base-load demand.

The largest factor influencing growth in demand for natural gas continues to be increasing demand from gas-fired electric generation. Currently, natural gas-fired generation provides one of the few environmentally acceptable methods of meeting growth in electric demand both through higher utilization of existing facilities and through the development of new facilities. In BC, British Columbia Hydro and Power Authority's electricity demand growth continues to be very strong with an estimated increase of 25%-45% by 2025. Elsewhere in the region electricity demand continues to grow as well. In the absence of any new significant sources of electricity generation in the PNW, meeting this demand growth will pose a significant challenge.

An emerging development is the increasing uncertainty in demand associated with dispatchable operations of gas-fired electric generation. In the I-5 Corridor, a significant amount of gas-fired electric generation capacity is currently under-utilized. As in the rest of North America, the only short-term response to increases in electricity demand will have to be served through gas-fired sources which represent a significant wildcard in forecasting natural gas demand within the region. The NWGA Outlook Study forecasts a combined peak day in the I-5 corridor of approximately 3.95 Bcf/d for 2007-08 and shows that adequate pipeline and storage infrastructure either exists or is planned to meet that peak day in the next several years. However, under-utilized gas-fired generation facilities currently could represent a potential peak day demand of up to 1.1 Bcf/d versus approximately 420 mmcf/d (excluding Burrard Thermal) currently forecast in the study. Additionally, work commenced this spring on the completion of two new gas-fired generating plants at Gray's Harbour (Satsop Plant) and Longview (Mint Farm Plant) Washington, representing an additional 120 mmcf/d of demand when completed.

Wholesale electricity and natural gas markets in the PNW can be linked at times due to the use of natural gas as a feedstock. Volatility in either market can, and has at times spilled over into the other market. These trends of higher weather sensitive load, growing use and unpredictable operation of gas-fired generation increases peak day demand and uncertainty in supply availability respectively, creating a greater need for high deliverability shorter duration resources in the region.

# 4 LONG TERM CONTRACTING STRATEGY

When contracting for resources to meet the requirements of its service area, TGVI must consider not only local market factors affecting the Utility on Vancouver Island and the Sunshine Coast, but also the regional dynamics of the industry in British Columbia, the US Pacific Northwest and in North America.

In formulating a longer-term strategy, TGVI must consider a number of key issues which will affect its contracting practice:

- De-contracting of capacity in the region, especially on Westcoast, and its impact on tolls and availability of firm supply at Huntingdon which may also have an impact on Northwest Pipeline ("NWP") to issue Operational Flow Orders.
- Impact on Station 2 supply and prices as increasing volume of gas heads east to Alberta bypassing Station 2 including the potential development of a pool at Gordondale in the T-North region.
- Continued concern over potential capacity shortfalls at Huntingdon and in the PNW on peak days.
- Increases in gas-fired generation in the PNW, particularly during a period of low regional hydro levels.



• Westcoast's proposal to re-negotiate OBAs and instil balancing penalties on T-North shippers, likely to commence in late 2007 or early 2008.

TGVI will continue, on an annual basis, to determine the appropriate balance of baseload, seasonal and spot supply necessary to meet its core load demand, storage injections requirements, as well as to optimize and mitigate the utility's resources.

TGVI's longer-term contracting strategy continues to be driven by the same objectives as the shortterm supply and price risk plans of ensuring safe, reliable and cost-effective natural gas deliveries while maintaining contracting flexibility. Keeping in line with the principles of the Annual Contracting Plan, TGVI's longer-term strategy will be developed around the following principles:

- Encourage and foster the development of cost-effective transportation infrastructure to Huntingdon which will improve access to a competitive market. The Huntingdon hub is part of an integrated regional marketplace in which natural gas customers in BC compete for supply with other consumers throughout the region. Therefore, longer-term planning should be conducted as a regional effort to ensure sustainability of resources in the PNW.
- Continue to contract term supply with producers who have significant reserves and long-term commitments in BC markets.
- Examine the effects of the following issues on Station 2 premiums: Spending cuts on natural gas exploration, production decline in Northern BC, increasing migration of BC sourced supply into Alberta, and the impact of Westcoast's policies on availability of supply and value of capacity.
- Evaluate the impacts of continued de-contracting of T-North capacity to Station 2 by producers and marketers, and increasing movement of gas east.
- Monitor potential changes to business rules and unresolved issues on Westcoast, TransCanada Pipelines Limited's BC & Alberta systems and NWP which may impact longer-term portfolio decisions made on behalf of core customers.
- Continue to use downstream market area storage and encourage the development of incremental facilities to replace expiring contracts, if economical. Local facilities, such as LNG storage on Vancouver Island provide increased deliverability and supply security within the region. Downstream market area storage with associated redelivery is increasingly more difficult to obtain even with the recent expansions.
- Develop and implement strategies to incorporate cost-effective spot purchases into the supply portfolio without exposing core customers to higher levels of physical supply risk.
- Continue to focus daily optimization activities on total overall lowest cost alternatives including storage and spot purchases, mitigation of assets and resale of excess baseload supply.
- Continue to diversify the portfolio by purchasing a mix of supply at various price indices (AECO, Station 2 and Huntingdon), with the flexibility to shift pricing from these points to optimize portfolio assets and overall economics depending on market conditions.

Limited pipeline and storage capacity, including LNG, will be the most critical infrastructure short-fall in the long-run. End-users in the PNW - including TGVI, Terasen Gas, other regional Local Distribution Companies, and potential new large consumers of natural gas, such as power generators - will need to sponsor such capacity additions in order to avoid a potentially detrimental supply infrastructure shortage situation in the region.



# 5 KEY MESSAGES / UPDATES: 2007/08 ACP

- Peak Day Demand 2007/08: Increase of 0.7% to 108.7 TJ/d from 2006/07.
- **Commodity Portfolio:** Commodity portfolio unchanged from 2006/07 including receipt points and supply mix.
- **Midstream Portfolio:** Storage and transportation contracts unchanged from 2006/07.
- **Operating Issues/Concerns:** Westcoast's winter operational problems raise concerns about the long term reliability of this system given TGVI's exposure upon it.
- Long Term Contracting: TGVI is in need of on-system short-duration resources, such as LNG, storage to manage its load growth and provide security of supply especially during periods of colder and extreme weather.