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January 5, 2010

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Commercial Energy Consumers Association of British Columbia
c/o Owen Bird Law Corporation
P.O. Box 49130
Three Bentall Centre
2900 – 595 Burrard Street
Vancouver, BC
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Attention: Mr. Christopher P. Weafer

Dear Mr. Weafer:

Re: Terasen Gas Inc. (“Terasen Gas”)

**Application for a Certificate of Public Convenience and Necessity (“CPCN”) for
the Tilbury Property Purchase (the “Application”)**

**Response to the Commercial Energy Consumers Association of British
Columbia (“CEC”) Information Request (“IR”) No. 1**

On October 28, 2009, Terasen Gas filed the Application as referenced above. In accordance with Commission Order No. G-138-09 setting out the Regulatory Timetable for the review of the Application, Terasen Gas respectfully submits the attached response to CEC IR No. 1.

If you have any questions or require further information related to this Application, please do not hesitate to the undersigned.

Yours very truly,

TERASEN GAS INC.

Original signed:

Tom A. Loski

Attachments

cc: Erica M. Hamilton, Commission Secretary, BCUC
Registered Parties



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1. Exhibit B-1, Executive Summary, Section 1.2, Page 3

approval. Once acquired, the Property will be incorporated into the Tilbury LNG Facility operations, giving TGI greater control of the use of the property and acting as a buffer to help ensure continued compliance with mandatory safety standards.

1.1 Once TGI controls the property what use of the property will TGI allow?

Response:

TGI would consider uses that are compatible with the zoning specifications and uses that would not jeopardize TGI's ability to maintain compliance with Z276 via the Retroactivity Clause. This will likely mean uses that would keep the number of people on the site at or below the levels that were present at the time of the ACRES risk assessment. For example, TGI believes that third party storage will likely be an opportunity, as discussed in the CPCN Application.

1.2 Why wouldn't the zoning bylaws require uses to be within the requirements for safety for the Tilbury LNG plant?

Response:

TGI is not in a position to speculate regarding Delta's approach. TGI is, however, subject to CSA Z276 regardless, and TGI's ownership of the Property provides the best assurance that the Property will not be used in a manner that is inconsistent with TGI's obligation.



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2. Exhibit B-1, Executive Summary, Section 1.2, Page 3

TGI's ability to continue to operate the Tilbury LNG Facility, which requires continued compliance with safety standards, is in the interest of customers. The LNG Facility is a key

- 2.1 Please confirm that the Tilbury LNG Facility could continue to operating in compliance with safety standards without the purchase of the Property, provided the land uses remained compatible?

Response:

TGI confirms that the plant can continue to operate in compliance with CSA Z276 *provided the land use remains compatible and there are no other significant changes to the inputs to the 1999 Risk Assessment*. Based on the last risk assessment performed in 1999 and subsequent improvements to the facility, the prescribed vapour dispersion limits at the existing LNG Facility property line were met but the radiant heat setback zones were not met in all cases. The assessment concluded the radiant heat risk was within the range of risks generally considered acceptable for similar industrial facilities based on the land use at the time with the hardwood mill in operations, thus satisfying the Retroactivity Clause requirement of Z276 to allow the LNG Facility to continue to operate with the existing plant property. However, TGI is very concerned that the closure of the Weyerhaeuser plant and a change in land use resulting in higher occupancy of this property would increase the risk profile of the LNG Facility which could necessitate either a very significant investment in improvement to the Facility, or even closure of the Facility.



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3. Exhibit B-1, Executive Summary, Section 1.2, Page 3

Standards Association standard CSA Z276-2007 ("CSA Z276" or "CSA Z276-07"). To remain in compliance with CSA Z276 and continue to operate, the Tilbury LNG Facility must not represent a significant risk to life or to adjoining property.

3.1 How is the risk to life from the Tilbury LNG Facility assessed?

Response:

This response is being filed confidentially under separate cover as it references sensitive information that was filed confidentially under Appendix 6 of the Application.

3.2 How is the risk to property from the Tilbury LNG Facility assessed?

Response:

The risk assessment methodology for the Tilbury LNG Facility in the 1999 Risk Assessment completed by ACRES (Appendix 6 (Confidential), Exhibit B-1) addresses both risk to life and property and does not consider these risks individually. Please refer to TGI's response to CEC IR 1.3.1.

3.3 Is there an analysis of failure types and a quantitative assessment for the probabilities of failures?

Response:

TGI's risk assessment methodology for the Tilbury LNG Facility in the 1999 Risk Assessment completed by ACRES (Appendix 6 (Confidential), Exhibit B-1-1) ("1999 RA") includes an analysis of failure types as well as a quantitative assessment of the probability of such failures. Please refer to TGI's response to CEC IR 1.3.1, and in particular, the discussion of the 5 step process involved in the risk assessment methodology used in the 1999 RA.



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As discussed in the response to CEC IR 1.3.1, the 1999 RA identified the following two hazards that could extend beyond the plant boundaries: offsite thermal radiation from an onsite fire and flammable vapour cloud dispersion offsite from a large release. The 1999 RA identified large earthquakes, aircraft impacts, equipment failures and operations as the most significant initiating events. The 1999 RA concluded that risk to members of the public from the most hazardous natural and man-made events was within an acceptable range.

- 3.4 Is there an analysis of failure types and an assessment of the extent of potential damage and consequences?

Response:

This response is being filed confidentially under separate cover as it references sensitive information that was filed confidentially under Appendix 6 of the Application.



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4. Exhibit B-1, Executive Summary, Section 1.2, Page 3

Since its commissioning in 1971, the LNG Facility has been in operation with an excellent safety record. TGI is required by legislation to operate the LNG Facility in accordance with Canadian

4.1 What is the expected remaining life of the Tilbury LNG Facility?

Response:

As mentioned in Section 4.3 Risk Assessments of Exhibit B-1, the Tilbury LNG Facility has undergone major improvements completed in 1984 including extensive ground improvement around the tank to improve its seismic response and the addition of the reinforced concrete high dike. By the end of 2004, further improvements were completed including realignment of the tank outlet line, the installation of an inner tank valve, and the extension of a high expansion foam system to cover the complete annular space between the high dike and the LNG tank. In addition, continuous improvements to repair, to refurbish and to replace LNG process equipment such as the LNG vaporizers, liquefaction cold box, process control equipment and instruments, and the standby generator has kept the Tilbury LNG Facility in good operating condition. At this point in time, the expected remaining life of the LNG Facility is indefinite.

4.2 What would Terasen expect to be done at the end of life for the Tilbury LNG Facility?

Response:

As discussed in Section 4.5.2 of Exhibit B-1 (pages 20-22), the Tilbury LNG Facility is both an important and valuable system capacity and peaking gas resource in Terasen Gas' supply portfolio. TGI expects to continue to use the Tilbury site for peaking storage for the foreseeable future. The expected life of the Tilbury LNG Facility is indefinite. Should the existing Tilbury LNG Facility be no longer considered fit for continued service, Terasen Gas would likely seek its replacement in place with potentially expanded LNG storage, liquefaction and sendout capabilities.

From an accounting perspective and based on the depreciation study filed in TGI's 2010-2011 Revenue Requirement Application the remaining composite life of the Tilbury LNG Facility is in



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the order of 20 years¹. However, TGI intends to maintain the Tilbury LNG Facility in a manner which maximizes its life and value to TGI's customers.

- 4.3 In What way would Terasen expect the Property to be affected by the scenarios for follow on plans after the end of life for the Tilbury LNG Facility?

Response:

At this time, the expected life of the Tilbury LNG Facility is indefinite. Please see the response to CEC IR 1.4.1. Should the existing Tilbury LNG Facility reach the end of its useful life and should Terasen Gas consider the replacement of an LNG Facility with expanded storage, liquefaction and sendout capabilities, Terasen Gas would incorporate the existing plant property and the purchased Property to accommodate the new LNG Facility.

¹ TGI 2010-2011 Revenue Requirement Application, Appendix H-2, page III-5. The Depreciation Study groups assets at the Tilbury LNG Facility into three categories with remaining lives between 17.6 and 26.5 years with a composite average of 20.6 years.



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5. Exhibit B-1, Executive Summary, Section 1.2, Page 3 and 4

Periodic comprehensive risk assessments commissioned to date have concluded that the Tilbury LNG Facility meets CSA Z276 because it does not pose a significant risk to life or

adjoining properties. However, this conclusion is based on current land use. Current zoning of adjacent properties, including the Property, permits higher occupancy than has been used by the owners of the properties to date. A change in use of the Property and, in particular, any

- 5.1 Has TGI explored the potential for zoning changes that would lock in the limits on the type and level of use which may be appropriate?

Response:

TGI does not believe it is appropriate to rely on zoning to impose restrictions on property owned by third parties in order to ensure the Tilbury LNG facility meets and continues to meet the requirements in CSA Z276, including the requirement that TGI establish that the LNG facility does not pose an unacceptable risk in order that TGI can continue to rely on the Retroactivity Clause in CSA Z276 (see Part 4 of the CPCN Application). Even if the current Delta council were to enact an amendment to the zoning bylaw that fully protected the LNG Facility from conflicting land use and development on neighbouring properties, there would be nothing to stop that council or subsequent councils acting in accordance with the *Local Government Act* (R.S.B.C. 1996 c. 323) from changing the zoning to accommodate a conflicting use or development. By acquiring fee simple title to the Property, TGI will be able to control the development on and use of the Property without needing to rely on a third party.

In addition, we have no indication that Delta council would be willing to use its land use control powers to control development around the LNG Facility and limit economic growth in its jurisdiction. Since zoning is a public and political process council may well be reluctant to restrict the use of land on Tilbury Island in order to benefit TGI's customers throughout the lower mainland. While using controlling development in this way could be beneficial to TGI and its ratepayers (at least, for as long as the bylaws remained in place), it would have a negative impact on the current and future property owners, such as the Vendor. Delta is aware of the Vendor's desire to sell the Property and presumably is also aware that by acquiring fee simple title to the Property, TGI would be able to control the development on and use of the Property.



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6. Exhibit B-1, Executive Summary, Section 1.2, Page 4

compliance. TGI has proactively worked with adjacent landowners to influence their land use decisions, but TGI has no means of dictating the land use. TGI has concluded that the most prudent and effective way to mitigate this risk is to purchase the Property and control its future

- 6.1 Has TGI explored the potential for acquiring an easement on the Property allowing it to control certain types of use on certain locations on the property?

Response:

For TGI's purposes, the acquisition of an "easement" is, in effect, substantially the same as acquiring a restrictive covenant. Please refer to TGI's response to BCUC IR 1.1.1 for TGI's reasons for not pursuing this option.

- 6.2 Has TGI explored the potential for purchasing the Property, placing an easement on the Property and then reselling the Property and holding the easement rights?

Response:

For similar reasons to those set out in TGI's response to BCUC IRs 1.1.1 and 1.9.8, TGI did not explore the possibility of purchasing the Property, placing an easement on the Property restricting development on and use of the Property and then selling the Property.



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7. Exhibit B-1, Executive Summary, Section 1.2, Page 4

the risk profile of operating the Tilbury LNG Facility. A change in use could jeopardize TGI's ability to maintain acceptable risk levels in the future, which could necessitate very significant and costly infrastructure investments at the Tilbury LNG Facility to ensure ongoing regulatory compliance. TGI has proactively worked with adjacent landowners to influence their land use

- 7.1 What investments at what cost would be required to avoid the need to control use on the adjacent properties?

Response:

If TGI does not purchase the Property and the Property is developed such that the Tilbury Facility is no longer in compliance with CSA Z276, then TGI would need to make a detailed investigation of alternatives to bring the facility back into compliance. Based on investigations to date, the only alternative that has been identified is replacement of the existing tank with a new design (likely a full containment tank). A preliminary estimate for this alternative is \$90 million.



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8. Exhibit B-1, Executive Summary, Section 1.2, Page 4

to two years from the execution date of the Contract of Purchase and Sale. Since the closing date is uncertain, TGI is proposing that the costs be added to TGI's rate base and cost of service in 2012. In the interim, TGI requests that the capital costs of the Tilbury Property purchase remain in a non-rate base deferral account and attract AFUDC. Property taxes that TGI will be responsible for after the Contract closing date will accumulate in TGI's existing Property Tax Deferral Account. The remaining incremental revenue requirement items such as O&M expenses will accumulate in the same non-rate base deferral account as the land until the Property is added to rate base and included in the year-to-year revenue requirements of TGI.

8.1 Would the potential sale of portions of the Property be credited to the interim deferral account?

Response:

To the extent that the sale of the 5.13 acre portion of the Property south of Tilbury Road or related activities to prepare for the sale occur prior to January 1, 2012 the proceeds of the sale and related costs will be recorded in the interim deferral account. The process of subdividing and selling a portion of the land involves many steps and a number of approvals. The fact that the particular portion of the Property being considered for sale is adjacent to a slough adds additional considerations to the processes for subdividing and selling. TGI considers it more likely that it will not be able to meet all of the requirements for subdividing the Property and then successfully concluding a sale until after January 1, 2012. As indicated on page 30 of the Application TGI will use the full proceeds (net of subdivision and sale costs) from the sale of the 5.13 acres to reduce rate base and the impact of the Property acquisition on customers' rates. The same treatment will apply whether the subdivision and sale of the 5.13 acres is concluded before or after January 1, 2012.

8.2 Would any revenues from alternative use of the Property be credited to the interim deferral account?

Response:

Any revenues generated from alternative use of the Property prior to January 1, 2012 will be credited to the interim deferral account. To the extent that any such revenues are recorded in the interim deferral account they will be given the same treatment for rate making purposes as the non-capital expenses for the Property that have been deferred such as property taxes and operating costs. TGI does not believe that there is a high probability of securing contracts and generating revenues of a material nature from the Property prior to January 1, 2012.



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9. Exhibit B-1, Executive Summary, Section 1.2, Page 4

TGI anticipates that the Tilbury Property Purchase incremental revenue requirement will flow into rates in 2012 at which point the land costs will be added to rate base and other deferred costs will be amortized over three years.. The incremental annual revenue requirement is

9.1 Why was a 3 year amortization period selected for these costs?

Response:

Please see the response to BCUC IR 1.7.1. The three-year amortization period was adopted for non-capital expenses at the Property in order to employ the same amortization period as TGI's existing property tax deferral account. Property taxes that TGI will be responsible for at the Property are expected to comprise most of the costs of a non-capital nature that will be deferred prior to January 1, 2012.

9.2 Could these costs be deferred and absorbed by potential future revenue from the Property?

Response:

Although technically it is possible to defer these costs and absorb them against potential future revenues, TGI does not believe it would be appropriate to do so. The cost items to be deferred are the property taxes and operating costs for the Property that will be incurred prior to January 1, 2012. These costs are normal expenses associated with owning a piece of property and should be related to the main purpose for owning the Property which in this case is for TGI to maintain ongoing compliance with CSA Z276. The revenue generating activities on the other hand will be ancillary activities aimed at cost mitigation and will likely occur only on a portion of the Property.



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10. Exhibit B-1, Project Justification, Section 4, Page 11

control the use of the Property. The Contract of Purchase and Sale represents an important opportunity to facilitate ongoing compliance with CSA Z276. While not the principal motivation for the acquisition, the Property could also provide a potential benefit related to the future potential expansion of the Tilbury LNG Facility, and could possibly be used for buffer storage for LNG for Transportation.

10.1 How will the appropriateness of TGI's efforts to develop alternative uses for the Property be assessed?

Response:

Any new facilities will have to meet all of the requirements of CSA Z276. TGI would very likely retain an external consultant/contractor for the design and construction of any significant new facilities for either peaking gas service expansion or buffer storage for LNG as a transportation fuel and the Terms of Reference for this work would include full compliance with Z276. In addition, TGI would seek BCUC approval through applications of Certificate(s) of Public Convenience and Necessity for any significant new facilities. This is the approach that TGVI has taken for design and construction of the new Mt. Hayes storage facility that is currently under construction near Ladysmith on Vancouver Island.

10.2 How much of the Property would be appropriate for storage for LNG for Transportation?

Response:

TGI now has an approved tariff for the sale and dispensing service of LNG for transportation purposes as a five year pilot program ending on December 31, 2014. During the pilot program, TGI will be assessing the market for LNG as a transportation fuel. This may trigger the need for buffer storage tanks; however, the amount of Property for this purpose will depend on the market demand which is unknown at this time. Once the market demand for LNG as transportation fuel is understood, a detailed design will be required to site the buffer tanks which will determine the amount of the Property that will be required.



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- 10.3 Can portions of the existing Tilbury LNG Facility lands be used for acceptable alternative uses which may mitigate costs?

Response:

TGI has reviewed other uses of a portion of the existing Tilbury property. These were uses involving few people, such as container storage and a possible expansion of the Seaspan parking area. A preliminary analysis indicated it was not going to be cost effective. There were also serious concerns with respect to the increase in people and property in close proximity to the existing storage tank, and the potential impact on TGI's ability to continue to comply with the retroactivity clause of CSA Z276.

- 10.4 Can the proposed LNG for Transportation storage be provided from TGI's existing Tilbury LNG Facility lands?

Response:

It is possible that buffer storage tanks for LNG for transportation could be sited on the existing Tilbury property, but as was noted in the response to CEC 1.10.2 this can only be confirmed once volumes are predicted and a detailed design has been completed.



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11. Exhibit B-1, Project Justification, Section 4.4.2, Page 17

Following the sale of the property in 1993 to CP, TGI continued to be concerned with respect to intended use of the property and met with CP to discuss the radiant heat risk from the Tilbury Facility and CP's plans for the CP Site. CP advised that they planned to construct an administration building close to Hopcott Road but, following this discussion, they agreed to construct their building further away from Hopcott Road. TGI paid for the incremental cost associated with this new location. The rest of the property was to be used primarily for storage of trailers and cargo. This use was considered acceptable from a risk perspective, as validated by the second risk assessment.

- 11.1 Did TGI acquire any rights to control use on the CP property or obtain any agreement with respect to use of the CP property adjacent to the Tilbury LNG Facility?

Response:

No, as discussed below, although TGI was able to negotiate an arrangement with CP to relocate its administration building, the Company was unsuccessful in its attempts to obtain any rights to control or limit future uses on the CP property.

As mentioned in Section 4.4.2 of the Application, the CP Site (now owned by SeaSpan) was listed for sale in the spring of 1993. A portion of the CP Site is within the CSA exclusion zone for the LNG Facility and TGI believed that whoever purchased the CP Site would likely have plans to develop it. TGI recognized that ownership of the CP Site would allow it to control density and development on the site thereby ensuring continuing compliance with CSA Z276 code requirements. TGI made an offer to acquire the CP Site in September, 1993. However, on November 1, 1993 TGI learned that the CP Site had been sold to Canadian Pacific Limited ("CP"). TGI also learned that CP and the vendor had been negotiations since the CP Site had been listed for sale in the spring of 1993.

Having been prevented from acquiring the CP Site, TGI evaluated the options available to it to acquire some ability to restrict use of the portion of the CP Site in the CSA exclusion zone. Although a less certain and effective means of achieving its objective of compliance with CSA code requirements than fee simple ownership, TGI tried to negotiate with CP to obtain a restrictive covenant to restrict the use of the portion of the site in the CSA exclusion zone. These negotiations were also unsuccessful. (Please see the response to BCUC IR 1.1.1 for an explanation of the limitations of a restrictive covenant as a means to obtain long term control over density and development on a property.)



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Having been unsuccessful in obtaining a restrictive covenant, in May 1994 TGI was nevertheless able to obtain CP's agreement to relocate their proposed new administration building to a different part of the CP Site away from the CSA exclusion zone but only after TGI agreed to pay the incremental costs associated with the new location. (Please see the responses to BCUC IR 1.2.1 and 1.2.2 for additional information.)



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12. Exhibit B-1, Project Justification, Section 4.4.3, Page 17 and 18

concerns regarding LNG Facility risks. Throughout this period, there were a limited number of people occupying the Property at any one time. These mill employees were not normally working very close to the plant property line. Therefore, this use was considered acceptable from a risk perspective, as validated by the second risk assessment.

12.1 Does TGI provide adjacent property owners with safety orientation information with respect to the Tilbury LNG Facility?

Response:

Yes, TGI provides information sessions regarding the operation of the facility, which include safety orientation, emergency response and evacuation procedures.

12.2 Do employees of businesses operating on adjacent property to the Tilbury LNG Facility receive any safety training from TGI with respect to the risk issues around the Tilbury LNG Facility?

Response:

Please refer to the response to CEC IR 1.12.1.

12.3 Does TGI offer and or provide any signage in regard to areas of greater potential exposure to risk on adjacent property owner's lands?

Response:

TGI has prudently taken steps to ensure the adjacent property owners are aware of the operational risks, although offering or providing signage has not been one of those methods. TGI has carried out information sessions, which have informed the neighbors of the potential and the degree of risk. Also, we perform annual testing of the notification system during our annual emergency response exercises, where the potential exposure to risk is reinforced to adjacent property owners.



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- 12.4 Are there any auditory signaling devices that may be triggered by potential failure precursors and enable people in the areas of greater risk exposure to be warned to move to greater distances away?

Response:

TGI believes notifying neighbors during an emergency is extremely important. TGI has an effective system in place, but it is not the type of auditory signaling device the question suggests. When the Emergency Response Plan was initially developed, our consultant advised against an audible system and recommended an automated notification system. The reason an audible system does not function as effectively is that after a period of time many people in the area become unaware of what the alarms indicate. This is in contrast to the type of system that notifies people by phone and leaves a voice message explaining the situation. We currently employ a Bell Automated Emergency Notification System that will inform the neighbors of any emergency conditions and recommends procedures that should be followed. This system is regularly tested during emergency response exercises – most recently on April 8, 2009. During this exercise, the neighbors were successfully contacted and informed that a test of the system was being conducted.



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13. Exhibit B-1, Acquisition, Section 4.5, Page 19

regional seismicity and more prescriptive requirements in CSA Z276. In the case of CSA Z276, the siting requirements have become more stringent since the Tilbury LNG Facility was commissioned and further changes could reasonably be expected in response to increasing public interest in and awareness of LNG resulting from the expanding use of LNG in Canada and around the world.

- 13.1 Do the more stringent new requirements and the potential for additional tightening of the standards lead to increased desirability for greater setbacks for uses involving people being present?

Response:

Yes, TGI will always review changes to the governing standards when assessing continued operation of the Tilbury Facility and any tightening to the standards will increase the desirability for greater setbacks.



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14. Exhibit B-1, Alternatives, Section 4.5.2, Page 20

If TGI does not purchase the Property and the Property is developed such that the Tilbury Facility is no longer in compliance with CSA Z276, then TGI will be in a difficult situation. It would be required to either replace the existing tank, attempt to mitigate the risk reactively after the Property was sold, or even decommission the LNG Facility. TGI does not believe these options are in the best interest of customers.

- 14.1 Would new tank designs mitigate risks to the extent that purchase of the Property would not be required?

Response:

A very different tank design (likely a full containment tank) would be necessary to maintain compliance with CSA Z276 in terms of limiting the setback zones with the existing plant property. Thus, new tank designs could potentially mitigate risks to the extent that purchase of the Property would not be required. However, as discussed in Section 4.5.2, Exhibit B-1, page 20, assuming that such a tank could be sited on the existing property, a preliminary estimate for this alternative is \$90 million, which is costly in comparison to the proposed Property purchase.

- 14.2 When would TGI expect the tank to be replaced in the normal life cycle for the tank?

Response:

As discussed in the response to CEC IR 1.14.1, with continuous improvements to the existing Tilbury LNG Facility, the expected remaining life of the Facility including the LNG tank is indefinite. Thus, TGI currently has no expectation of replacing the existing LNG tank.

- 14.3 What would be an approximate capital cost for replacement of the tank?

Response:

The capital cost for a replacement LNG tank would vary depending on the storage capacity and the design of the tank and the associated containment system under consideration. As an example of a replacement LNG tank cost, the cost of a direct replacement of the existing LNG tank with a full containment tank design, as discussed in the referenced section of Exhibit B-1, has a preliminary estimate of \$90 million.



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15. Exhibit B-1, Other Considerations, Section 4.6, Page 22 and 23

Two other considerations exist that, while not the principal motivation for the acquisition of the Property, represent a benefit associated with TGI purchasing the Property. First, an expanded property will facilitate siting of future LNG facilities associated with expansion and/or replacement of existing equipment. Second, it will enhance TGI's ability to add buffer storage tanks to facilitate and support the LNG market for transportation use.

15.1 When might such facilities be required?

Response:

As discussed in the response to BCUC IR 1.5.2, at this point in time, TGI does not have a schedule or time line of TGI's development plans for this Property. As outlined in the Application, TGI believes the purchase of this Property is required to mitigate the near term risks of third party redevelopment and provide a buffer zone in compliance with CSA Z276. Longer term considerations include the possibility of expansion of the existing LNG facility in the future and enhancing TGI's ability to add buffer storage tanks to facilitate and support the LNG market for transportation use. However, TGI does not have specific time lines associated with these considerations and prefers to continue to monitor, investigate and assess market conditions and the costs associated with such developments before any concrete development plans are considered or produced.

15.2 How much of the Property or of the existing property might be required for such facilities?

Response:

The siting requirements for future LNG facility expansion for regional peaking supply storage and for buffer storage tanks for LNG as a transportation fuel would be determined when the respective markets are assessed and established in the long term. Until the expansion capacities and the facility designs have been defined based on market requirements, TGI cannot predict how much of the subject Property and the existing property might be required for future LNG facility expansion.



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15.3 What is the expected probability range that such facilities may be required?

Response:

As discussed in the response to BCUC IR 1.5.2, at this point in time, TGI does not have a schedule of development plans for this Property and, as such, does not know the expected probability range that such facilities may be required. TGI will continue to monitor, investigate and assess market conditions and the costs associated with such developments before any concrete development plans are considered or produced and expected probability ranges determined.

15.4 How do the expectations for such facilities fit within the Provincial GHG target policy?

Response:

TGI does feel that expanded LNG facilities are supportive of provincial GHG reduction targets. They support the BC 2007 Energy Plan objectives of promoting natural gas as a clean, safe and reliable fuel alternative, reducing GHG emissions, and investment in alternative energy.² In the Energy Plan, the government indicates its commitment to reducing GHG emissions from the transportation sector. The transportation sector is the largest source of GHG emissions in the province accounting for approximately 39% of the Province's emissions.³ Diesel and gasoline are the primary fuels used in the transportation sector and as such account for a significant portion of the GHG emissions as well as contribute to a reduction in air-quality in Metro Vancouver. Vehicle retrofit technology is available to convert vehicles to cleaner fuel sources. The Energy Plan highlights that "natural gas burns cleaner than either gasoline or propane, resulting in less air pollution,"⁴ implying that the adoption of NGVs can play a role in helping the province reduce GHG emissions in the transportation sector.

TGI has relied on these statements, among other government policy statements contained in the 2007 BC Energy Plan in discussing TGI views on energy use and the path forward on how to reduce GHG's from a regional perspective.

² 2007 BC Energy Plan: "A Vision for Clean Energy Leadership", page 1

³ IBID, page 20

⁴ IBID, page 19



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As a foundational fuel, natural gas, along with renewable energy sources such as geothermal and solar, will continue to play a significant role in meeting the existing and growing energy requirements of British Columbians, as well as other energy consumers in North America. In combination these energy forms (natural gas, geothermal, solar) will reduce the carbon intensity of energy consumption in applications where they are utilized. More recently, in an effort to find "climate change" solutions in the transportation sector, natural gas is seen as having a key role to play in vehicular applications, particular in the fleet transportation sector.

Natural gas will continue to be the right choice for the majority of consumers, and its use should be encouraged where it is the right energy form for the right application at the right time given the applications relative stage of commercial and technological development. When fuel alternatives exist it is imperative that the appropriate rates and incentive mechanisms, as well as consistent messaging, are in place to encourage the efficient use of energy through market-based approaches. In this way, carbon reduction may be enhanced through energy choice.



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16. Exhibit B-1, Financial Impacts, Section 6.2, Page 29

TGI has evaluated the incremental cost of service and cash flow impacts associated with the Tilbury Property Purchase over a 25-year planning period. For the purposes of this evaluation,

16.1 Why is a 25 year planning period used?

Response:

The 25-year period was employed in the financial analyses with respect to the Property since that is the analysis period that has been used in TGI's resource plans and CPCN applications. The financial schedules in Confidential Appendix 9 provide incremental annual revenue requirements and incremental annual cash flows for the Property for each year of the 25-year period and present value results for 15-year and 25-year periods. The present value results are also calculated at two discount rates - 6.3% representing TGI's weighted after-tax cost of capital and 10% as a sensitivity rate. All of the analyses presented have been provided based on direction received from the Commission in past resource plan decisions or CPCN decisions.

16.2 What does TGI expect to happen to the Property at the end of the 25 year period?

Response:

TGI does not have expectations that anything in particular will happen to the Property at the end of the 25-year period. As a piece of land the Property will be a non-depreciable asset and will be carried in rate base at the initial cost (plus any recorded AFUDC) for the entire 25-year period. TGI intends to keep the Property as long as the Tilbury LNG facility continues to be in operation, and currently TGI expects the facility to have an indeterminate life based on the ongoing investment to maintain it.

16.3 What does TGI expect to happen with the Tilbury LNG Facility by or at the end of the 25 year period?

Response:

As discussed on page 21 of the Application, the Tilbury LNG facility plays a very valuable role in TGI's system and in its gas supply portfolio by contributing benefits of security of supply, reliability and operational flexibility as well as lowering the delivered cost of gas for TGI's



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customers. TGI intends to operate and maintain the Tilbury LNG facility to continue providing these benefits for the foreseeable future. As discussed in section 4.6 of the Application, TGI will continue to assess the need for additional LNG storage on its system and in the Lower Mainland and, if circumstances warrant, will consider the development of additional LNG storage capability at the Tilbury site. (TGI does not at this time have any specific plans for expansion at the Tilbury facility during the 25-year period. Please see the responses to BCUC IRs 1.5.1 and 1.5.2 for discussion on gas supply and regional resource issues.) The potential to develop buffer storage for LNG for Transportation is also presented in section 4.6 of the Application as a possible future use of the Tilbury LNG facility. Subject to any developments that may occur in these or other areas, TGI expects the Tilbury LNG facility to continue to operate and contribute benefits to customers for the 25-year period and beyond.



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17. Exhibit B-1, Potential Future Uses, Section 6.3, Page 30 and 31

TGI has identified two potential opportunities. The first is to subdivide the Property and sell the portion not required to meet CSA Z276. The second is to earn revenue from low impact activities on the Property, such as third party storage. Preliminary evaluation of these opportunities indicates that it could reduce the cost of service by \$200,000 to \$300,000 per annum. The evaluation of the potential benefits of these opportunities is included in confidential Appendix 9. Details of these two opportunities are provided below.

17.1 Would the third party storage use potentially take up all of the acquired Property?

Response:

The analysis presented in the Application of possible revenue generating activities from third party use of the Property is preliminary. Nevertheless TGI does not consider it a likely outcome that third party storage could take up all of the acquired property. Please see also the response to BCUC IR 1.10.1.

17.2 Would the portion of the Property proposed to be sold have potential value contribution to mitigating the cost of acquisition beyond the value of the land being recovered on sale?

Response:

TGI understands this question to be asking whether it might produce larger cost mitigation to retain the 5.13 acres south of Tilbury Road and use it to generate third party revenues than to subdivide and sell the 5.13 acres and use the net proceeds to reduce the rate base. Although this is possible, at this point in time, TGI does not believe this is likely to be the case. If TGI were to retain this portion of the Property for the purpose of generating revenues there would be a requirement to pay the ongoing maintenance and upkeep costs for this land and the property taxes. There may also be a need to make improvements to the land in order to attract business. The broker's estimate of the potential value of leasing opportunities found in confidential Appendix 10 indicates that the opportunity for third party revenues for the whole Property is only a portion of the cost of service for the whole Property. TGI believes that it is reasonable to assume that the same relationship would prove to be the case for the 5.13 acre portion. As discussed in Section 6.3 of the Application, we plan to continue to investigate the potential to subdivide off this portion of the Property and, if subdivision is possible, seek a possible sale of this parcel.

TGI also notes that the 5.13 acre portion south of Tilbury Road is not needed to ensure ongoing CSA Z276 compliance which is the primary purpose for seeking to purchase the Property to



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begin with. Subdividing and selling this portion of the Property is consistent the notion of TGI retaining only the portion of the Property that it needs to run its operations safely and reliably, and in keeping with applicable external codes and standards. Thus, provided it is practical and makes financial sense to do so, TGI's preferred option at this time is to investigate the potential for subdivision.

- 17.3 Would TGI administer the property to be used for third party storage or would this be contracted out to a third party?

Response:

TGI would administer the property to be used for third party storage. TGI has offices and other operations facilities in a number of locations in which the Company is also a landlord and leases office and storage space to third parties. This model has worked well for TGI as there have been no additional management costs for this structure and the revenue generated from these leases is used to partially offset the operating cost for the particular facility.



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18. Reference: General

18.1 Can TGI refer to any precedent where the Commission has approved a CPCN to acquire a piece of property which may be subsequently developed and partially sold of by the Utility?

Response:

Please see the response to BCUC IR 1.9.5.

18.2 Please confirm by which process TGI would undertake the sale of a portion of the property and what would be the anticipated costs of the process to ratepayers?

Response:

In order to complete a sale of a portion of the property, TGI would need subdivision approval from the City of Delta. This process requires TGI to complete an application with the City to confirm our intent. The City would then provide itemized improvements and estimated costs required for the approval of subdivision of the property based on the official community plan. TGI would then be required to complete engineering drawings and bonding for the improvements with final approval from the City. Since the portion of the Property being considered for sale is located next to a slough there will be additional environmental concerns to be considered in the subdivision process. All improvement costs would be deducted from the selling price of the property. TGI currently estimates these costs including real estate fee at \$500,000. This estimate would be validated through the application process.