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**TGVI 2010 & 2011 REVENUE REQUIREMENTS**

**EXHIBIT C2-2**

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August 6, 2009

**VIA ELECTRONIC MAIL**

British Columbia Utilities Commission  
6<sup>th</sup> Floor, 800 Howe Street  
Vancouver, B.C. V6Z 2N3

**Attention: Erica M. Hamilton, Commission Secretary**

Dear Sirs/Mesdames:

**Re: Terasen Gas (Vancouver Island) Inc. ("TGVI") 2010 and 2011 Revenue Requirements and Rate Design Application ~ Project No. 3698563**

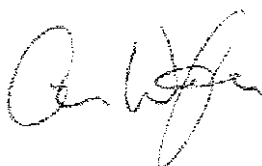
We are counsel for the Commercial Energy Consumers Association of British Columbia ("CEC"). Attached please find the first set of Information Requests of the CEC pertaining to the above-noted matter.

A copy of this letter and attached Information Requests has also been forwarded to TGI and the intervenors by e-mail.

Should you have any questions regarding the foregoing, please do not hesitate to contact the writer.

Yours truly,

**OWEN BIRD LAW CORPORATION**



Christopher P. Weafer

CPW/jlb/Enclosure

cc: CEC

cc: TGVI

cc: Registered Intervenors

## Commercial Energy Consumer Association of British Columbia

### Information Request # 1

#### **Terasen Gas Vancouver Island Inc. (TGVI) 2010-2011 Revenue Requirements Application Cost of Service, Revenue Deficiency Account Balance and Rate Design Application**

#### **1. Reference: Exhibit B-1, Page 1**

TGVI has been operating under the Vancouver Island Natural Gas Pipeline Act Special Direction<sup>3</sup> (the "Special Direction") since 1995. The Special Direction is appended to the Vancouver Island Natural Gas Pipeline Agreement ("VINGPA"), an agreement among the predecessor companies to TGVI, the Province, and (by assignment from Westcoast Energy Inc.) Terasen Inc. ("Terasen"). The VINGPA customer base relative to rate base, and relatively low penetration rates. The cessation of the Royalty Revenues in 2012, combined with the need to repay the remaining Repayable Contributions owing to the Provincial and Federal Governments,<sup>4</sup> represent significant challenges for our customers and TGVI itself as these events will result in significant revenue requirement increases.<sup>5</sup> The forecast

<sup>4</sup> As discussed in Part II, TGVI is obligated under the Pacific Coast Energy Pipeline Agreement ("PCEPA") to repay a total of \$75 million to the Federal and Provincial Governments that had been provided to the Company under the terms of an earlier agreement that had been entered into to support the construction of the pipeline to Vancouver Island and the Sunshine Coast.

- 1.1. TGVI's history has been one of agreements with governments to help make natural gas service on Vancouver Island work. Does Terasen believe that the challenges of the past are over or sufficiently diminished that TGVI can absorb these challenges or does Terasen believe that the challenges may still require further agreements with government?
- 1.2. Do the 'significant revenue requirement increases' associated with these challenges and the competitiveness of alternatives to TGVI's services demonstrate that these challenges may still be of sufficient magnitude to justify working on further agreements with governments?
- 1.3. Has the possibility of holding discussions with government been foreclosed or in anyway cutoff?
- 1.4. Has Terasen held discussions with governments in regard to these challenges and has Terasen looked at models for how it might mitigate these challenges through agreements with governments?

1.5. Would Terasen be open to working on agreements with governments to further mitigate these 'significant challenges for TGVI's customers'?

**2. Reference: Exhibit B-1, Page 3**

Stability will be achieved by four means:

- A rate freeze for Core Market customers, which also ensures these rates will remain competitive with the competitive energy alternatives on Vancouver Island and the Sunshine Coast;
- Transportation rates specified in transportation agreements will remain unchanged;
- The transportation rates, other than for those customers with rates specified in their transportation agreements, will be reduced effective January 1, 2010, and then maintained through 2011; and
- The portion of the revenues for 2010 and 2011 that are surplus to the cost of service will be deposited in a Rate Stabilization Deferral Account ("RSDA"), with the balance amortized starting in 2012 over 1 or 2 years, depending on the balance in the account, so as to offset a portion of lost Royalty Revenue.

The alternative to the proposed approach is rates set to recover only the forecast cost of service. TGVI has included information on rates derived from the forecast cost of service, for comparative purposes.

rates to customers through 2011 and beyond. Rates designed to recover only the forecast cost of service would result in a significant rate decrease in 2010, followed by a significant increase in 2011 and an even more significant increase in 2012. This type of volatility in delivery rates, combined with the

- 2.1. Why does Terasen propose to freeze Core Market customer rates but lower transportation rates for customers without rates in transportation agreements?
- 2.2. Does Terasen have a reasonably high degree of certainty with regard to surpluses over and above the cost of service that it can count on amounts being generated in the RSDA
- 2.3. Does Terasen believe that there will be sufficient surplus revenues in 2010 and 2011 to mitigate the loss of the royalty credit?
- 2.4. Does Terasen have a reasonably high degree of certainty that its rates will remain competitive with a 1 to 2 year amortization of surpluses starting in 2012?
- 2.5. Does the proposed development of surpluses and subsequent amortization of these into rates simply delay the competitive pressures off a little further into the future but not really or fundamentally solve the challenges?

2.6. Are these two alternative approaches to dealing with TGVI's major challenges the only ones TGVI has considered?

2.7. Would Terasen be open to alternative strategies, which may assist TGVI in coping with these major challenges?

**3. Reference: Exhibit B-1, Page 4**

nature of how natural gas and electricity costs are set into customer rates. TGVI's competitive position, and factors such as penetration and use per customer rates, and TGVI's continued reliance on the Royalty Revenues, leads to the conclusion that TGVI remains a relatively immature utility where fixed costs are spread over a small but growing customer base and retaining existing customers (by reducing the potential for customer migration from natural gas to alternative fuels) is essential for TGVI to mitigate the impact on rates borne by its remaining natural gas customers. Given the outlook for TGVI's

foreseeable future. The Soft-Cap pricing mechanism has allowed TGVI's Core Market rates to remain competitive with alternative fuel rates (mainly electricity and fuel oil). TGVI's rate structure must continue to address these issues as described in this Application.

3.1. The CEC believes that Terasen at the workshop indicated that the facts with respect to the maturity of TGVI as a utility would not likely change rapidly and that this impediment to TGVI's competitive position would likely be in place for decades to come. Can Terasen please confirm this or clarify if necessary? Does the soft-cap pricing mechanism allow TGVI's rates to be competitive with alternatives or does it mitigate the competitive pressures from the alternative fuels?

3.2. While rates and rate structures are important components to have aligned with any approach developed to deal with TGVI's competitive position does Terasen believe they are sufficient on their own to deal with TGVI's competitive position?

**4. Reference: Exhibit B-1, Page 5 and Page 13 from the Climate Action Plan**

Energy policy at all levels of government is increasingly focused on addressing climate change through the reduction of greenhouse gas ("GHG") emissions, energy conservation, and the development of alternative (and renewable) energy sources. Provincial policy and recent amendments to the *Utilities Commission Act* (the "Act") have given utilities such as TGVI the responsibility for implementing the Provincial government's energy objectives. The implications of these policies for TGVI are profound, and TGVI is compelled to respond.

## Legislated Targets

The November 2007 Greenhouse Gas Reduction Targets Act entrenched the following commitments in law:

- By 2020, B.C. will reduce its greenhouse gas emissions by 33 per cent, compared to 2007 levels. In addition, legally binding targets will be set this year for 2012 and 2016.
- By 2050, GHG emissions in the Province will be reduced by at least 80 per cent below 2007 levels.
- By 2010, the B.C. public sector will be carbon neutral. In other words, the government is setting an example and keeping its own carbon footprint as small as possible.

- 4.1. While the CEC understands that the role of Terasen in meeting GHG goals is not a specifically prescribed one, it is instructive to look at the potential consequences of applying the targets to Terasen. What would the projected prices for customers be if TGVI for its customer's end uses or its customers directly were to be constrained to 10%, 30%, 50%, 70% and 80% of today's GHG output from use of TGVI supplied natural gas?
- 4.2. Terasen has characterized the potential impacts as profound. Would the potential impacts be beyond profound, could the implications be catastrophic for TGVI?
- 4.3. Terasen is clear that TGVI is compelled to respond. Is the requirement presented by these challenges such that it requires that Terasen not only respond but that it must also succeed in remarkable ways?
- 4.4. Is not the challenge really a fundamental question of adapting to survive or failing to survive?

## 5. Reference: Exhibit B-1, Page 5

performed well between 2005 and 2007,<sup>19</sup> BC experienced declining economic growth, a higher unemployment rate, and lower housing starts in the last half of 2008. The economic performance since mid-2008 has generated concern for how the BC economy may perform in the coming years. A

- 5.1. Does Terasen believe that BC is facing something of a structural change in certain sectors of the BC economy that may impact TGVI in the coming years?

## 6. Reference: Exhibit B-1, Page 7

expectations of customers have evolved. However, with this success comes increased expectations and, when combined with changing customer expectations, evolving government policy, and changes in the competitive environment, TGVI will have to invest more in its customer care service in order to improve the current levels of service to meet the evolving needs of customers. TGVI customers will benefit from the introduction of TGI's Customer Care Enhancement Project.<sup>21</sup>

- 6.1. When was the last customer system change made for TGVI?
- 6.2. What was the cost benefit justification for implementing that change?
- 6.3. How long was the life of the last TGVI customer care solution supposed to be?
- 6.4. Are there any non-capitalized costs for operating staff expensed in the 2010 – 2011 period related to development and or preparation for implementation in subsequent periods? Are interest costs for the investments being made in the customer care solutions being capitalized and amortized into future periods?

**7. Reference: Exhibit B-1, Page 9**

Customers are increasingly expecting TGVI to provide information and advice, and deliver a range of energy solutions including gas, Energy Efficiency and Conservation (“EEC”) measures, and alternative energy solutions. In accordance with the Commission’s direction in response to the Company’s recent EEC Application, TGVI seeks approval in this Application to expand the existing EEC portfolio and spending for these areas in 2010 and 2011. The details of the proposal are described in Part III, Section C, Tab 3 of the Application.

In response to changing expectations, the Company also proposes to offer integrated and comprehensive energy solutions in conjunction with the use of natural gas. This will allow customers to consider the use of natural gas alone or with a complementary fuel choice in an integrated solution where it may otherwise not have been considered. This is supported by the policy statement from the 2007 BC Energy Plan that states:

- 7.1. Does Terasen have an understanding of what the users of such services are prepared to pay for these additional services?
- 7.2. Does TGVI see any difference between itself offering these additional services and TGI offering these services in its jurisdiction?
- 7.3. Given that TGVI appears to have more challenging circumstances than TGI is it appropriate to load TGVI with these added customer challenges?
- 7.4. Given that TGVI appears to have more challenging circumstances than TGI is it more appropriate for TGVI to take on more of these customer challenges and to a greater extent than TGI?

## **8. Reference: Exhibit B-1, Page 12**

providing these alternative energy solutions to customers, as set out in Part III, Section C, Tab 12. We believe that it is in the interest of both existing and future customers that TGVI not only be able to offer these alternative energy solutions, but that the programs, development and sales costs of these activities for the forecast period form part of the costs to be recovered from customers as part of this RRA .

- 8.1. To what extent does TGVI expect that the costs of offering alternative energy solutions, programs, developments and sales activities will lead the recovery in revenue of the costs of providing the service?
- 8.2. Does Terasen plan to monitor and report on this revenue lag and determine when if ever there will be a breakeven for the customers absorbing this risk?

## **9. Reference: Exhibit B-1, Page 30**

gas contributes to climate change. TGVI outlines how natural gas market prices have improved relative to other energy commodities (such as oil) in the North American marketplace, but TGVI faces long term challenges in the B.C. marketplace due to the differing nature of how natural gas and electricity costs are set into customer rates.

- 9.1. Has Terasen analyzed the competitive position of natural gas service on Vancouver Island versus electric service from a cost of service point of view as opposed to from a rates point of view?
- 9.2. If Terasen has done such an analysis could this be provided and if Terasen has not done such an analysis does Terasen believe such an analysis would be useful to the Commission to make the point being raised clear?
- 9.3. Would Terasen be interested in developing such an analysis?
- 9.4. What is the total space and water heating load on Vancouver Island?
- 9.5. What portion of this load is potentially within a reasonable range to offer TGVI's service?
- 9.6. What would the cost of service be to deliver natural gas service to these loads?
- 9.7. Terasen has examined the cost of natural gas service against the cost of electric service based on the BC Hydro LTAP marginal cost of new supply \$120/MWh, has Terasen

examined adding to this cost for Vancouver Island the cost of transmission supply to Vancouver Island and in particular the cost to replace transmission lines connecting the Lower Mainland and Vancouver Island?

**10. Reference: Exhibit B-1, Page 31**

2. Energy policy at all levels of government is increasingly focused on addressing climate change and energy conservation and TGVl business must evolve to support this focus. This section will explore how B.C. Government Policy, Municipal Government Policy, and Federal Government Policy are all aggressively encouraging the reduction of GHGs, have a focus on lowering energy consumption, and are keen in their search for and developing alternative (and renewable) energy sources. The

- 10.1. Has Terasen determined how much bio-mass might be available to provide a renewable energy source on Vancouver Island, which Terasen might use to provide service to its customers?

**11. Reference: Exhibit B-1, Page 34**

efficiency factor, and below for 2011. Tables A-1 through A-8 below summarize TGVl's forecast effective rates with forecast electricity prices for 2010 and 2011 (adjusted for 90 per cent and 75 per cent efficiency levels)<sup>27</sup>:

- 11.1. Please produce comparative gas and electricity pricing for 2012;

- 11.1.1. Assuming natural gas prices have to absorb the removal of the royalty credit

- 11.1.2. Assuming payout of the repayable contributions

- 11.1.3. Assuming increased ROE as per Terasen's application

- 11.1.4. Assuming increased RR as per Terasen's Enhanced Customer Care solution application

- 11.1.5. Assuming increased RR as per Terasen's Revenue Requirements application

- 11.1.6. Assuming any other items Terasen expects will increase revenue requirements

- 11.1.7. Assuming electricity prices for RIB Tier 2 go to the full marginal cost of \$120/MWh

- 11.1.8. Assuming electricity prices for LGS go to the full marginal cost of \$120/MWh



- 11.1.9. Assuming electricity prices for Residential and Commercial go to reflecting for all the full marginal cost of \$120/MWh
- 11.1.10. Assuming electricity prices for Residential and Commercial for Vancouver Island reflect the cost of replacing transmission lines to VI at some appropriate, end of life, point in the future
- 11.1.11. Assuming increased electric demand for electric transportation over the next 20 years

**12. Reference: Exhibit B-1, Page 41**

TGVI has been in operation for less than 20 years. In comparison with a well established utility like TGI, TGVI has relatively large capital expenditure requirements, low customer base relative to rate base, and comparatively low penetration and use per customer rates.

- 12.1. Please translate the larger capital expenditure, rate base issues into an equivalent \$/GJ explanation of differences between TGI and TGVI natural gas rates.
- 12.2. Please identify what portion of the lower use per customer the lower penetration rates account for versus just lower actual usage per customer.
- 12.3. Please identify what portion of the lower use per customer is attributable to the higher use per customer in colder climate zones for TGI versus TGVI.
- 12.4. Please identify what portion of the lower use per customer is attributable to the higher average furnace efficiency for TGVI customers versus TGI customers.

**13. Reference: Exhibit B-1, Page 43**

Table A-12: Efficiency and Age of Furnace

	TGI	TGVI
Efficiency of furnace*		
High efficiency (90 percent or higher)	15%	27%
Mid efficiency (78 to 85 percent)	32%	49%
Standard efficiency (less than 78 percent)	53%	24%
*Excludes Don't Knows		
Age of furnace or gas boiler		
Less than 5	24%	17%
5-9	20%	26%
10-14	16%	38%
15-19	13%	17%
20-24	8%	1%
25+	19%	1%

- 13.1. What would the average life expectancy for a furnace be for TGVI?
- 13.2. Given that over 50% of the TGVI customer furnaces are over 10 years old and in another 10 years will be over 20 years old does this represent an opportunity for TGVI to devise and implement a strategy for conversion to an as yet undetermined alternative energy solution which may have long term strategic value for customers and for TGVI?
- 13.3. What is the age of furnaces for the potential customer base, which does not yet represent TGVI customers?
- 13.4. What sort of potential may exist for capture of this customer base with appropriate alternative energy solutions?

**14. Reference: Exhibit B-1, Page 47**

early years as it matures.”<sup>54</sup> Continuation of the current rates that are based on the Soft-Cap mechanism is critical to TGVI in the current circumstances, ensuring that TGVI’s rates stay as competitive as possible with alternative energy options while also meeting rate design objectives such as providing rate stability and recovery of the cost of service. Rate design objectives are addressed in Part III, Section

- 14.1. While the Soft-Cap mechanism is understandable in terms of competitiveness with electricity, given that the electricity rates are now beginning to move toward marginal cost price signals, might it be appropriate to consider a Smoothed Cost of Service mechanism for TGVI instead of a rate that is so directly tied to competitor prices?
- 14.2. Given that electricity rates have not yet and are not likely any time soon to recognize the regional issues of difference in cost of service might TGVI benefit from developing strategy along with its alternative energy solutions which specifically focuses these regional issues up to a provincial policy level?
- 14.3. How does Terasen see dealing with the regional Vancouver Island differences over time?
- 14.4. Has Terasen raised the regional Vancouver Island differences with the provincial government and if so to what effect?
- 14.5. Would Terasen be open to developing a specific Vancouver Island strategy reflecting these differences?

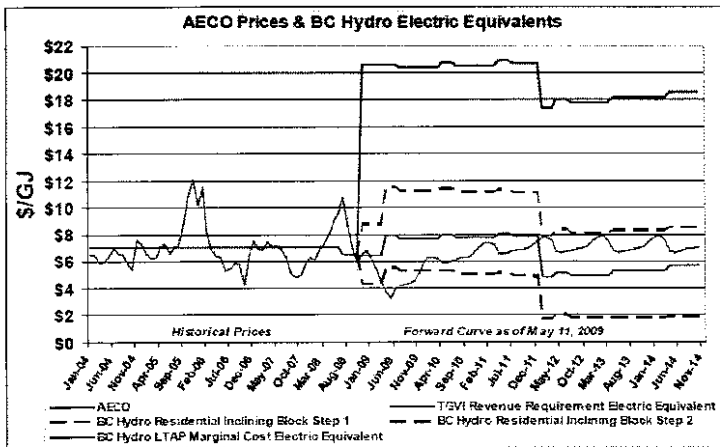
**15. Reference: Exhibit B-1, Page 48**

When looking at the long term competitiveness of natural gas, we need to consider both the operating cost (cost of the energy) and the cost of installing the equipment (capital or upfront costs).

- 15.1. The insight here may be that TGVI needs to assert more control over both these hurdles. Would TGVI be open to considering alternative strategies to the ones it has proposed?
- 15.2. Is TGVI opposed to taking on the initial investment in capital costs as a means of competing, assuming that this would be collected back from customers over time?
- 15.3. Is TGVI opposed to smoothing out the cost of natural gas over time and having any positive balance provide a basis for ameliorating these hurdles?
- 15.4. Is TGVI opposed to working out a strategy for linking these hurdles to BC Hydro issues and negotiating a mutually beneficial approach to balancing the regional competition issues?

**16. Reference: Exhibit B-1, Page 53**

Figure A-6: AECO Prices vs. Electric Equivalent Commodity Component - Current Prices as of May 11, 2009, With BC Hydro Marginal Cost of Supply<sup>39</sup>



- 16.1. Why in these comparisons does the BC Hydro LTAP Marginal Cost Equivalent and the BC Hydro Tier 2 RIB Equivalent drop in December 2011?
- 16.2. Why does the TGVI Revenue Requirement Electric Equivalent drop in December 2011?
- 16.3. Why do TGVI Revenue Requirements after 2011 not reflect the royalty credit and contribution repayment issues, or do they?
- 16.4. Why do BC Hydro Electric Equivalents not show projected BC Hydro rate increase and BC Hydro's proposed strategy for augmenting the Tier 2 rate faster than the Tier 1 rate?

## **17. Reference: Exhibit B-1, Page 64**

How these regulations will work with the Western Climate Initiative ("WCI") cap and trade system is still yet to be determined by government in the coming year.<sup>29</sup> Harmonization with federal regulation is also yet to be determined. Further details on the WCI follow in this section.

17.1. The CEC recognizes that the above reference harmonization has to do with climate change and GHG control but noted the uses of the word harmonization, which provoke the following question: How does Terasen expect the HST to affect the competitiveness of alternative energy supply?

## **18. Reference: Exhibit B-1, Page 65**

The Commission is required to consider government's energy objectives in the context of long-term plans, applications for a Certificate of Public Convenience and Necessity ("CPCN") and applications for approval of expenditure schedules. The amendments clearly positioned utilities as being on the front lines of implementing policies that encourage energy efficiency and the reduction of GHGs.

18.1. Does Terasen believe that the Commission is required to take the government's energy objectives into consideration in dealing with TGVI's RR and RD Application?

18.2. Would Terasen consider that taking the government's energy objectives into consideration would warrant the Commission encouraging Terasen's and particularly TGVI's alternative energy solutions?

## **19. Reference: Exhibit B-1, Page 71**

These three approaches are:

- Use available energy efficiently.
- Introduce alternative energy options.
- Move towards integrated community energy solutions.

In response to these policies and realities, TGVI has brought forth new energy alternatives for customers to help them and therefore the province of B.C. meet its energy objectives and goals. See Part III, Section C, Tab 3 for more details on new customer energy solution offerings.

19.1. There is little doubt that Terasen has moved strategically in presenting its case for pursuing alternative energy solutions, does Terasen believe that it has done enough?

19.2. Is it possible that Terasen will need to do much more than it has proposed to keep up with these unfolding challenges?

19.3. Has Terasen sized the magnitude of the efforts it will need to engage in to get out in front of these issues and enhance its competitive position?

**20. Reference: Exhibit B-1, Page 77**

The new emphasis on climate change presents both obligations and opportunities for TGVI to be a leader in assisting our customers to address these challenges. This Application outlines a number of new business initiatives that are aimed at providing customers with a range of energy solutions that are consistent with evolving government policy and public perception. The intended evolution of our

20.1. Has Terasen pursued any of the government funding which is being put toward alternative energy solutions in order to enhance the economic position of its proposals?

20.2. Has Terasen engaged any of the government levels to pursue potential funding options which would enable it to pursue the alternative energy options more quickly and effectively?

20.3. Has Terasen been approached by any levels of government to pursue any particular alternative energy solutions?

**21. Reference: Exhibit B-1, Page 80**

change. TGVI will need to play an important role in assisting communities and developers in understanding facts as well as identifying solutions. It is in the customer's best interest for TGVI to be delivering these solutions given our broad geographic footprint, skilled workforce, knowledge and experience. Our customers' best interests are served by TGVI being - and being perceived by

21.1. What are the potential risks and consequences if TGVI is not playing an important role in alternative energy solutions?

21.2. Has TGVI quantified the customer interest in this issue or this a qualitative issue for TGVI?

21.3. The CEC believes that there are quantifiable customer interests at stake here and would like to know if Terasen has identified what specifically might be quantified if it has not already done some analysis?

**22. Reference: Exhibit B-1, Page 88**

TGVI needs to invest in the necessary resources to address properly the issues presented by asserted claims of aboriginal rights and title and the duty to consult and, if necessary accommodate.

22.1. Are the aboriginal issues faced by Terasen and TGVI in particular restricted to responding to claims, assertion of rights and title and duty to consult or is there a more proactive approach to be taken in addition?

**23. Reference: Exhibit B-1, Page 103**

Initial costs of approximately \$15 million incurred for restructuring and investment in information technology have resulted in sustainable annual savings of approximately \$10 million per year for the three utilities collectively. Today, the companies continue to operate with a common management structure with sharing of services and resources under a Shared Services agreement, allowing the companies to maintain an optimal level of resources and avoiding duplication for the benefit of customers.

23.1. Who paid for the \$15 million initial costs, was this paid for by the ratepayers?

23.2. Who received the \$10 million per year in annual savings?

**24. Reference: Exhibit B-1, Page 127**

Figure B-2-7: Effective TGVI Residential Customer Rates 2006-2009<sup>139</sup>



24.1. Please provide the above figure with the breakdown of the major cost components.

**25. Reference: Exhibit B-1, Page 150**

**Table B-2-5: Number of FTE Employees has Decreased Significantly Since 2004**

TERASEN GAS VANCOUVER ISLAND EMPLOYEES HISTORICAL COMPARISON FULL-TIME EQUIVALENT (FTE) EMPLOYEES BASED ON PAID HOURS FOR THE YEARS 2004 TO 2008					
Particulars	2004	2005	2006	2007	2008
Distribution	54	100	81	71	70
President's Office	1	-	-	-	-
Finance	2	-	-	-	-
Business & IT Services	15	8	5	4	4
Human Resources	1	-	-	-	-
Marketing	37	31	15	10	7
Gas Supply & Transmission	18	18	18	17	17
<b>Total FTE</b>	<b>128</b>	<b>165</b>	<b>112</b>	<b>100</b>	<b>98</b>

25.1. Is Terasen at all concerned that cutting back on its marketing staffing may diminish TGVI's ability to increase market share, maintain or improve throughput volumes and penetrate markets for alternative energy solutions?

**26. Reference: Exhibit B-1, Page 164**

Certain of these savings can only be sustained for a limited period of time before activities need to be resumed and costs need to be incurred. Accordingly, the level of O&M has begun to increase in 2009, as described in the department by department review below.

26.1. Please identify and quantify for 2009, 2010 and 2011 which costs are associated with activities that are being resumed after a brief deferral and which activities were permanently reduced or eliminated relative to the total savings claimed in regard to TGVI's operational excellence.

**27. Reference: Exhibit B-1, Page 173 and Page 174 and 175 and Page 330 and 331**

Table B-2-22: TGVl Services / Service Header Mains 2006 - 2009

	2006 Actual	2007 Actual	2008 Actual	2009 Projection
Net Customer Additions	4,081	3,881	3,528	2,500
Gross Customer Additions	4,322	4,080	3,771	2,644
Ratio of Service Additions to Gross Customer Additions	0.72	0.81	0.82	0.78
<b>Activities:</b>				
Service (risers)	3,131	3,292	3,088	2,066
Service Header Mains (metres)	8,710	12,425	12,153	8,142
<b>Unit Costs:</b>				
All Services \$/Service	1,734	1,875	2,290	3,100
<b>Expenditures (\$millions)</b>				
Services	4.7	5.4	5.9	5.6
Service and Vertical Header Mains	0.7	0.8	1.2	0.8
<b>Total</b>	<b>5.4</b>	<b>6.2</b>	<b>7.1</b>	<b>6.4</b>

From 2006 to 2008, the aggregate services unit cost without consideration of the CIAC, increased from \$1,734/service to \$2,290/ service or 32 per cent. There are several factors which have contributed to the pressures experienced with aggregate services unit costs during the period. Challenges faced by TGVl in containing services costs include managing work in multiple municipalities, managing the installation contractors, integrating TGVl into TGI customer additions processes, training new crew members, and inflationary increases in wages, vehicles, contracts and materials. Refer to previous section Mains Unit Cost for a discussion.

Table C-9-4: Forecast Services Activities, Unit Costs and Expenditures

	2009 Projection	2010 Forecast	2011 Forecast
Net Customer Additions	2,500	2,320	2,430
Gross Customer Additions	2,644	2,460	2,582
Ratio of Service Additions to Gross Customer Additions	0.78	0.78	0.78
<b>Activities:</b>			
Service (risers)	2,066	1,922	2,017
Service Header Mains (metres)	8,142	7,572	7,950
<b>Unit Costs:</b>			
All Services \$/Service	3,100	3,091	3,202
<b>Expenditures (\$millions)</b>			
Services	5.6	5.2	5.7
Service and Vertical Header Mains	0.8	0.7	0.8
<b>Total</b>	<b>6.4</b>	<b>5.9</b>	<b>6.5</b>

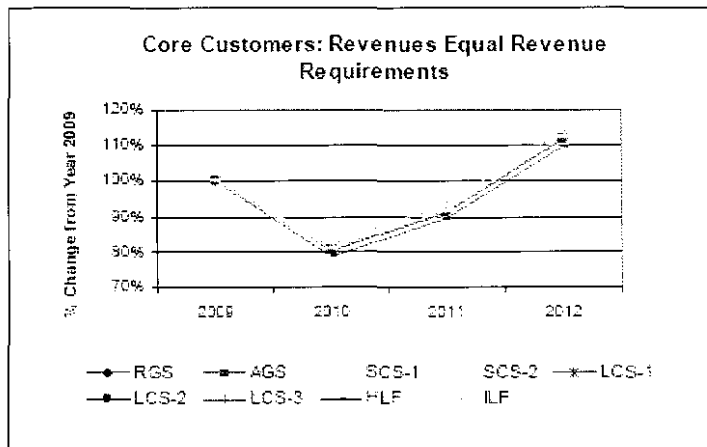


The forecast unit costs for 2010 and 2011 reflect the pressures TGVl has experienced due to the downturn in the economy in late 2008, lower services activities in 2009 and a significant change in the amount of Service work previously completed by install contractors. These factors have resulted in a higher percentage of services work being completed by the TGVl internal workforce. Correspondingly, in the absence of work, the install contractors are going through a period of significant layoffs.

- 27.1. Please explain why the unit cost of a service has increased so dramatically for 2008 and 2009.
- 27.2. Is the explanation provided the only explanation for the continued increases?
- 27.3. Please provide an analysis breaking down the cost increases by each of the factors provided?
- 27.4. Please explain whether or not the subsequent explanation (using own staff versus contractors) is correct or the former explanation is correct (several factors).
- 27.5. For how long does Terasen expect to sustain the higher costs of providing services?
- 27.6. Does Terasen ever see a reversion to the provision of lower cost services?
- 27.7. Please provide an explanation as to how this rate of cost increase assists in Terasen's competitive position?
- 27.8. Please explain how this rate of cost increase and sustaining this level of cost represents Terasen's and TGVl's operational excellence?

**28. Reference: Exhibit B-1, Page 197**

Figure B-3-2: Changes from 2009 Core Market Rates Required If Rates and Revenue set to Equal Revenue Requirements



- 28.1. Please provide a projection for 2013 and 2014 as well for the above graph.
- 28.2. If smoothing of revenue requirements and rates is to take place the CEC is interested in what shape of the curve might best suit customer interests. Has Terasen looked at different smoothing options and if so what were they and why was the proposal in the application seen as superior?
- 28.3. What is the Quarter 2 Update gas sensitivity case and what is the probability of this occurring versus the probability of other scenarios occurring?

**29. Reference: Exhibit B-1, Page 200**

The Company proposes a rate reduction of 4.75 per cent to BC Hydro and TGW (i.e. the transportation customers without rates fixed in a Transportation Service Agreement), effective January 1, 2010. The remaining transportation customers' rates are set per their respective Transportation Service Agreements. Further information regarding the transportation rates for each of these groups of transportation customers is set out below.

- 29.1. Why wouldn't the Transportation rate receive similar treatment to all other rates?
- 29.2. Why wouldn't other rates which are charged in excess of their cost of service be accorded some rebalancing?
- 29.3. Did Terasen look at other scenarios for rebalancing the rates and if so could these please be provided?

**30. Reference: Exhibit B-1, Page 212 and Page 297 and 298**

Table C-2-4: O&M Funding to meet our Customers' Needs Results in Increased Revenue Requirements<sup>155</sup>

	(\$ millions)	
	2010 vs. 2009	2011 vs. 2010
Labour Inflation & Benefits	\$ 0.7	\$ (0.2)
Code and Regulations	(0.0)	(0.2)
Accounting Changes	(1.5)	0.1
Mt Hayes LNG	0.3	1.1
Service Enhancements	4.9	(0.2)
<b>Total O&amp;M Change</b>	<b>\$ 4.2</b>	<b>\$ 0.6</b>

\$4.5 million of the 2010 increase is in the Office of the President and CEO. This increase is composed of:

- \$3.4 million increase in Shared Services from TGI, described more fully in Part III, Section C, Tab 11; and
- \$1.2 million increase in Corporate Services from Terasen, also described more fully in Part III, Section C, Tab 11.

30.1. Please describe the reasons for the Service Enhancements requirement for each of the components.

**31. Reference: Exhibit B-1, Page 217**

The cost on average for hydronic underfloor system materials is estimated to be about \$4,000, not including the cost of the boiler. The average cost of hydronic baseboard materials is estimated to be approximately \$2,000, again not including the cost of the boiler. In order to promote a sustainable energy design, the Companies will provide incentives up to 25 per cent of cost of the hydronic underfloor piping materials (oxygen barrier tubing) to a maximum of \$1,000 and hydronic baseboard materials up to 25 per cent and a maximum of \$500. For 2010 and 2011 the spending forecast is \$159,000 and \$319,000 respectively for a two year total of \$478,000.

31.1. Why wouldn't the Companies provide a larger incentive to the less expensive baseboard model to increase their competitive position with other fuel choices?

**32. Reference: Exhibit B-1, Page 254**

All levels of government and members of the general public in B.C. are committed to reducing the consumption of energy and reducing GHG emissions. TGVI must adapt to these changes or risk becoming a provider of a single product that will continue to face reduced market demand. TGVI is ideally positioned to deliver alternative energy solutions, in conjunction with its core gas business, within a transparent environment of regulatory oversight that provides security in a levelized cost approach. The increased adoption of alternative energy systems that we expect will result, will act more quickly and in a more meaningful way than current market trends can deliver to help meet the targets set out by the Province and the expectations of TGVI customers and the BC public in general. TGVI's participation in alternative energy systems in this way will help our customers access broader energy solutions.

32.1. Is Terasen expecting to undertake any Demand Side Management, Alternative Energy Solutions or GHG Reduction initiatives outside of its regulatory business, and in this case particularly on Vancouver Island?

32.2. If Terasen is expecting to undertake unregulated business activity in any of the areas which it is also proposing to undertake regulated service initiative, could a description of those unregulated business activities please be provided and an explanation of how Terasen is managing the relationship between the regulated and the unregulated business to ensure a fair and reasonable treatment of regulated business customers?

**33. Reference: Exhibit B-1, Page 264**

TGVI has incorporated the terms of the long-term TSA between TGVI and BC Hydro for the purposes of this filing. On March 26, 2009 TGVI received notice from BC Hydro that pursuant to the TSA BC Hydro was increasing its contract demand by 5 TJ/day to 50 TJ/day over the period November 1, 2009 through October 31, 2011. Given the next major outage (for maintenance purposes) is currently scheduled for the 2011/2012 winter, it is reasonable to assume that BC Hydro will decrease its contract demand back to 45 TJ/day effective November 1, 2011. TGVI has therefore assumed contract demand to be 50 TJ/day from November 1, 2009 through October 31, 2011 and then 45 TJ/day effective November 1, 2011 onward.

33.1. Have these assumptions been confirmed with BC Hydro and if not could Terasen do so and provide the response?

**34. Reference: Exhibit B-1, Page 272**

portfolio requirements. To the extent that TGVI does not require the full one third of the capacity to meet capacity requirements on its system in 2011, it can elect to put a portion to TGI and replace it with other resources if it is more cost effective to do so.

34.1. What would be the revenue requirement impact for TGVI of a put to TGI of a portion of its Mt. Hayes LNG capacity, please analyze for a put of 1/3, 2/3 and 3/3 of its capacity?

**35. Reference: Exhibit B-1, Page 278**

Table C-5-1: CMAE Consolidated Historical and Projected Costs (\$ millions)

	2004	2005	2006	2007	2008	2009
Total CMAE	\$2.04	\$2.17	\$2.19	\$2.22	\$2.41	\$2.49

35.1. Please supply the equivalent O&M reallocations for the historical years to match those provided for the forward years.

**36. Reference: Exhibit B-1, Page 282**

forecast was developed; this scenario will be referred to as the "Q2 Update Cost of Gas". The additional hedging includes approximately 1.7 PJ for 2010 and 1.3 PJ for 2011, or a total volume of gas hedged in the June 1 gas cost forecast of approximately 3.7 PJ in 2010 and 1.9 PJ in 2011. This compares to the volume of gas hedged in the Base Case Cost of Gas forecast of approximately 2.0 PJ in 2010 and 0.6 PJ in 2011. Thus, under the June 1, 2009 gas cost forecast, the volume of gas exposed to commodity market price changes is lower than the previously discussed three scenarios. And similar to all the previous scenarios, the Royalty Revenues provide an indirect hedge for approximately 50 per cent of the overall gas supply portfolio.

- 36.1. How much of the Base Case Cost of Gas was hedged prior to the application filing?
- 36.2. Please provide the projected status of those hedges reflecting the revenue requirement impact versus the cost of being price exposed?
- 36.3. Please provide the prices at which the June 1 additional hedging was done?
- 36.4. Has Terasen approached the government with regard to the possibility of an agreement to retain the hedging value of the Royalty Credit from some set hedging price with government?

**37. Reference: Exhibit B-1, Page 315**

<u>Other</u>				
PCEC Start Up Costs	5(a)	1,162	1,118	1,074
IFRS Transitional Deferral	5(b)	-	1,379	7,274
Pension & OPEB funding	5(c)	-	(2,538)	(10,421)

- 37.1. Have the projections for Pension and OPEB funding changed significantly with the rebounds in the equity markets, since the filing of the application and the fixing of the base for determination of these forecast amounts?
- 37.2. Would a significant change in forecast of these amounts affect revenue requirements for 2010 and 2011?

38. Reference: Exhibit B-1, Page 435

TERASEN GAS (VANCOUVER ISLAND) INC.  
2010 TGV: RATE DESIGN  
REVENUE, SURPLUS AND R/C RATIOS AT PROPOSED RATES

Schedule 34E-10  
June 22, 2009 Pricing of TGV Rate Design

Line No.	Rate Class	Volume (GJ)	Proposed Revenue	Effective Proposed Rate	Allocated COS (LNG)	Allocated COS (Transmission)	Allocated COS (Distribution)	Allocated COS (Total)	RSDA** Surplus (Gross)	Tax on RSDA Surplus	RSDA Surplus (net-of-Tax)	R/C Ratio @ Proposed Rate
1	RGS	4,591,707	\$ 81,396,270	\$ 17.73	\$ 194,396	\$ 10,550,368	\$ 70,254,853	\$ 81,029,827	\$ 255,443	\$ 72,284	\$ 152,735	1.00
2	AGS	1,110,344	\$ 14,159,951	\$ 12.75	\$ 95,380	\$ 1,999,923	\$ 7,434,958	\$ 9,530,251	\$ 4,715,992	\$ 1,044,729	\$ 2,574,361	1.50
3	EGS-1	409,150	\$ 7,481,421	\$ 18.29	\$ 17,319	\$ 962,834	\$ 4,835,767	\$ 5,895,720	\$ 1,565,701	\$ 443,262	\$ 1,122,439	1.20
4	EGS-2	433,983	\$ 8,512,493	\$ 19.61	\$ 12,734	\$ 1,047,429	\$ 3,803,267	\$ 4,862,479	\$ 2,542,974	\$ 1,059,569	\$ 2,509,305	1.75
5	EGS-3	1,329,402	\$ 15,742,229	\$ 11.84	\$ 45,399	\$ 2,832,228	\$ 9,109,732	\$ 11,987,359	\$ 7,359,342	\$ 2,011,595	\$ 5,347,754	1.50
6	EGS-4	3,353,216	\$ 17,649,341	\$ 5.26	\$ 40,289	\$ 2,280,983	\$ 6,812,283	\$ 11,134,255	\$ 6,611,508	\$ 1,888,236	\$ 4,822,269	1.50
7	EGS-5	2,533,817	\$ 25,920,548	\$ 10.23	\$ 73,256	\$ 4,093,264	\$ 14,974,221	\$ 19,140,741	\$ 7,799,514	\$ 2,732,471	\$ 7,307,943	1.51
8	HLP	130,366	\$ 1,452,772	\$ 11.22	\$ 1,571	\$ 63,800	\$ 715,266	\$ 880,637	\$ 459,112	\$ 137,610	\$ 442,502	1.82
9	ILF	120,498	\$ 1,040,548	\$ 8.63	\$ 211	\$ 29,586	\$ 812,923	\$ 942,720	\$ 598,517	\$ 169,960	\$ 428,557	1.93
10												
11												
12	Total Core	17,041,707	\$ 179,442,444	\$ 10.53	\$ 429,391	\$ 23,650,165	\$ 120,650,993	\$ 144,859,159	\$ 54,809,034	\$ 2,917,042	\$ 24,892,264	1.24
13												
14	BC Hydro	18,280,500	\$ 15,859,147	\$ 0.868	\$ 299,484	\$ 13,031,080	\$ -	\$ 15,290,784	\$ 2,568,363	\$ 730,076	\$ 1,838,287	1.18
15	VIGJV	2,920,200	\$ 2,722,153	\$ 0.934	\$ 41,517	\$ 2,888,501	\$ -	\$ 2,930,018	\$ 299,139	\$ 34,845	\$ 112,192	1.12
16	TGI (Squamish)	413,380	\$ 454,249	\$ 1.100	\$ 21,076	\$ 1,088,398	\$ -	\$ 1,059,481	\$ (655,410)	\$ (188,741)	\$ (466,672)	0.40
17	TGW	2,532,700	\$ 2,479,232	\$ 0.977	\$ 26,068	\$ 2,055,649	\$ -	\$ 2,081,717	\$ 387,321	\$ 110,590	\$ 479,966	1.18
18												
19	Firm Service	54,120,130	\$ 21,454,357	\$ 0.397	\$ 399,444	\$ 16,243,318	\$ -	\$ 16,691,952	\$ 2,492,427	\$ 758,654	\$ 1,733,773	1.14
20												
21	Total System	36,361,227	\$ 202,936,931	\$ 5.582	\$ 828,238	\$ 42,103,971	\$ 120,650,993	\$ 163,641,069	\$ 37,326,737	\$ 4,215,817	\$ 26,743,954	1.25

\* The revenue collection from the VIGJV and TGI (Squamish) is established by the tolls set out in their respective long-term Transportation Service Agreements  
\*\* RSDA: Rate Stabilization Deferral Account

TERASEN GAS (VANCOUVER ISLAND) INC.  
2011 TGV: RATE DESIGN  
REVENUE, SURPLUS AND R/C RATIOS AT PROPOSED RATES

Schedule 34E-11  
June 22, 2009 Pricing of TGV Rate Design

Line No.	Rate Class	Volume (GJ)	Proposed Revenue	Effective Proposed Rate	Allocated COS (LNG)	Allocated COS (Transmission)	Allocated COS (Distribution)	Allocated COS (Total)	RSDA** Surplus	Tax on RSDA Surplus	RSDA Surplus (net-of-Tax)	R/C Ratio @ Proposed Rate
1	RGS	5,015,211	\$ 82,325,254	\$ 16.41	\$ 1,490,748	\$ 11,474,409	\$ 75,368,035	\$ 87,353,193	\$ (8,019,229)	\$ 1,212,783	\$ 15,591,019	0.91
2	AGS	1,110,344	\$ 14,242,456	\$ 12.78	\$ 270,358	\$ 2,129,282	\$ 5,239,120	\$ 7,638,760	\$ 3,200,448	\$ 547,782	\$ 2,582,676	1.29
3	EGS-1	414,366	\$ 7,812,350	\$ 18.85	\$ 131,070	\$ 1,019,790	\$ 4,528,112	\$ 5,679,072	\$ 933,360	\$ 247,244	\$ 886,116	1.14
4	EGS-2	465,240	\$ 8,542,402	\$ 18.36	\$ 143,841	\$ 1,108,978	\$ 4,346,060	\$ 5,602,889	\$ 2,289,417	\$ 782,333	\$ 2,171,054	1.53
5	EGS-3	1,334,231	\$ 12,811,377	\$ 9.60	\$ 327,347	\$ 2,873,117	\$ 9,259,734	\$ 12,459,968	\$ 6,242,244	\$ 1,335,556	\$ 3,539,699	1.59
6	EGS-4	1,389,735	\$ 17,814,477	\$ 12.75	\$ 327,347	\$ 2,412,233	\$ 10,255,437	\$ 13,075,017	\$ 4,741,450	\$ 1,255,988	\$ 3,485,461	1.36
7	EGS-5	2,417,225	\$ 26,327,264	\$ 10.89	\$ 545,106	\$ 4,326,139	\$ 17,278,812	\$ 22,150,057	\$ 6,502,257	\$ 1,824,588	\$ 5,009,429	1.50
8	HLP	130,366	\$ 1,452,772	\$ 11.22	\$ 1,573	\$ 68,440	\$ 849,885	\$ 960,198	\$ 505,814	\$ 154,727	\$ 379,257	1.64
9	ILF	120,498	\$ 1,240,248	\$ 10.29	\$ 4,566	\$ 51,163	\$ 735,452	\$ 891,181	\$ 469,485	\$ 124,357	\$ 345,128	1.61
10												
11												
12	Total Core	12,432,620	\$ 182,461,731	\$ 14.68	\$ 3,244,778	\$ 25,244,229	\$ 127,279,151	\$ 155,864,167	\$ 16,537,574	\$ 4,480,116	\$ 12,077,457	1.10
13												
14	BC Hydro	17,945,000	\$ 15,859,284	\$ 0.884	\$ 1,885,794	\$ 13,406,648	\$ -	\$ 15,292,442	\$ 295,920	\$ 78,067	\$ 217,896	1.22
15	VIGJV	2,920,200	\$ 2,775,597	\$ 0.951	\$ 216,346	\$ 2,422,658	\$ -	\$ 2,739,004	\$ (13,904)	\$ (3,682)	\$ (10,222)	1.00
16	TGI (Squamish)	422,287	\$ 445,370	\$ 1.056	\$ 157,462	\$ 1,129,932	\$ -	\$ 1,287,414	\$ (644,044)	\$ (203,580)	\$ (440,464)	0.34
17	TGW	2,566,650	\$ 2,667,569	\$ 1.039	\$ 269,540	\$ 2,162,244	\$ -	\$ 2,431,988	\$ 75,884	\$ 20,042	\$ 55,826	1.03
18												
19	Firm Service	55,983,207	\$ 21,315,240	\$ 0.383	\$ 2,819,751	\$ 16,181,680	\$ -	\$ 18,801,431	\$ (426,343)	\$ (128,827)	\$ (397,516)	0.86
20												
21	Total System	36,285,827	\$ 203,716,770	\$ 5.617	\$ 6,964,419	\$ 44,425,909	\$ 127,279,151	\$ 157,266,598	\$ 16,361,221	\$ 4,321,289	\$ 12,019,643	1.09

\* The revenue collection from the VIGJV and TGI (Squamish) is established by the tolls set out in their respective long-term Transportation Service Agreements  
\*\* RSDA: Rate Stabilization Deferral Account

38.1. Why does Terasen believe that it is appropriate to drive R/C Ratios for its proposed rates below 1, when there are other rates that are substantially above even 1.1?

38.2. Has Terasen examined alternative rate design options that might present a fairer approach for all customer classes?