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February 4, 2005

British Columbia Utilities Commission
900 Howe Street, Sixth Floor
Vancouver, B.C. V6Z 2N3

Attention: Mr. Robert J. Pellatt, Commission Secretary

Dear Mr. Pellatt,

**Re: British Columbia Hydro and Power Authority
Call for Tenders for Capacity on Vancouver Island
Review of Electricity Purchase Agreement
Final Argument
Project 3698354**

Please find attached the final argument from Terasen Gas (Vancouver Island) Inc. ("TGVI") in respect of the above noted proceeding.

Should you have any questions in respect of this submission, please call Tom Loski at (604) 592-7464.

Yours very truly,

TERASEN GAS (VANCOUVER ISLAND) INC.

Original signed by Tom Loski

For: Scott A. Thomson

cc: Richard Stout, BC Hydro
Registered Intervenors

BRITISH COLUMBIA UTILITIES COMMISSION

**IN THE MATTER OF the *Utilities Commission Act*,
R.S.B.C. 1996, Chapter 473 (the “*Act*”)
and**

**A Filing by British Columbia Hydro and Power Authority
Call for Tenders for Capacity on Vancouver Island
Review of the Electricity Purchase Agreement**

**SUBMISSIONS OF
TERASEN GAS (VANCOUVER ISLAND) INC.**

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TERASEN GAS (VANCOUVER ISLAND) INC.**

INTRODUCTION

1. These submissions of Terasen Gas (Vancouver Island) Inc. (“TGVI”) to the British Columbia Utilities Commission (“Commission” or “BCUC”) relate to the filing by the British Columbia Hydro and Power Authority (“BC Hydro”) for review of the Electricity Purchase Agreement (“EPA”) that resulted from BC Hydro’s call for tenders (“CFT”) for capacity on Vancouver Island.
2. As the natural gas distribution and transportation service provider on Vancouver Island, TGVI has a direct interest in the outcome of these proceedings. TGVI has a specific interest in the long-term natural gas transportation requirements for the proposed Duke Point Power (“DPP”) project.

A. BC HYDRO’S REQUIREMENT FOR NEW GENERATION CAPACITY

3. TGVI submits that the conclusion reached in the VIGP Decision that the next appropriate resource addition to meet Vancouver Island’s growing electricity needs is on-Island generation (VIGP Decision, p. 78) has been confirmed in this proceeding. This VIGP Decision conclusion has been cited at various points in this hearing including the adoption of it as a starting point in the establishment of the scope of the proceeding by the Commission panel (Tr. 2, p. 307). There has been nothing in evidence in the CFT EPA proceeding which poses any serious challenge to this finding. In response to questioning on this issue by the Chairman, Ms.

Hemmingsen indicated that any change in circumstances since the VIGP Decision had made the appropriateness of that conclusion even stronger (Tr. 8, p.1725).

4. Regarding the Vancouver Island demand forecast, the evidence in this proceeding establishes that the forecast supply / demand capacity gap at the time generation under the EPA commences has increased relative to the shortfall determined in the VIGP Decision. In January 2004 and January 2005 BC Hydro's load requirements reached successive record high peak demands that were already above the 2008 forecast used to reach conclusions in the VIGP Decision (Tr. 8, p. 1898). These high peak load requirements were sustained over a number of days. The rapidly growing Vancouver Island electric load clearly supports the need for on-Island generation.

5. The evidence in this proceeding also supports on-Island generation from the standpoint of reliability and diversity of supply. Generation having dependable capacity with 97% availability in the months of October to March (as required by the CFT mandatory criteria) provides a significant contribution to BC Hydro being able to meet N-1 reliability standards for its Vancouver Island customer base. On-Island generation capability provides BC Hydro with flexibility to deal with unplanned events in other portions of its Vancouver Island supply infrastructure such as transmission outages.

6. TGVl notes that while the CFT process was designed primarily to solve a capacity problem on Vancouver Island, the Duke Point plant will provide benefits to the rest of BC Hydro's system. Ms. Van Ruyven indicated that the BC Hydro system overall was nearing capacity balance and that new cables alone could not solve the Vancouver Island issue since generation capacity would have to be built or acquired elsewhere if it was not built on the Island (T6: 1100). Later Ms. Hemmingsen indicated that the Duke Point facility will make a capacity contribution not only to Vancouver Island but to BC Hydro's overall system (T8: 1726)

7. BCTC's evaluation of NorskeCanada's Demand Management Proposal ("DMP"), filed January 10, 2005 in this proceeding, concludes that the proposal by itself is unable to solve capacity deficits on Vancouver Island in 2007. BCTC characterizes the load shedding options such as DMP as being of a stopgap nature suitable to help resolve short-term capacity shortfalls but not an appropriate longer-term approach to meeting the N-1 minimum reliability standard. This opinion is confirmed by BC Hydro at Tr. 9, p. 1974, ll. 1-11.

MS. HEMMINGSEN: A: So if we rely on these types of options, that impacts our ability to rely on them as operational measures as well. So this doesn't give any consideration to the impact of that. As well as, there's some system stability issues that need to be

considered, and those are all the types of issues that BCTC and BC Hydro would need to consider in determining whether the Norske proposal, or temporary curtailment of pulp and paper mills, are appropriate resources to rely on to meet N minus 1 criteria for the long term.

8. TGVl agrees with the opinions reached by BC Hydro and BCTC that consideration of load shedding or curtailment options need to take into account operational constraints, and system reliability issues should not be considered as reliable resources for the purpose of long term system planning.

B. GAS TRANSPORTATION COSTS AND RISKS

9. In establishing the scope of the review for these proceedings, the Commission determined that BC Hydro has the burden of establishing that gas transportation service will be available to serve the DPP project. In addition, the Commission determined that the gas transportation costs submitted by TGVl to BC Hydro for the purposes of the CFT are relevant and that the onus is on BC Hydro to ensure that evidence is provided to support the gas transportation costs used in the QEM.

Tr. 2, p. 312, l. 25 - p. 313, l. 15

I. Availability of Transportation Capacity

10. At BC Hydro's request, in support of the CFT process TGVl undertook an assessment to estimate the capital additions and the cost of gas transportation that would be required to serve the Island Cogeneration Project and the facilities that may result from the CFT. The results of this assessment were provided in TGVl's report "Assessment of Gas Transportation Requirements for ICP and Potential CFT Portfolios" dated September 9, 2004. This report has been provided in these proceedings as Attachment 1 of BC Hydro's response to BCUC IR1.23.5 (Exhibit B-9). TGVl's assessment of facility requirements and transportation costs are based on the development of its proposed Mt. Hayes LNG facility on Vancouver Island as described in paragraph 3.1 on page 9 of TGVl's report:

The costs to provide service to BC Hydro for the Island Cogeneration Project (ICP) and any new facilities that arise from the CFT were assessed based on the assumption the proposed LNG production and storage facility is completed and put in service in 2007. The use of the LNG facility in conjunction with other TGVl transmission assets was modeled to make the most efficient use of the combined system and thereby minimize costs that need to be recovered from sales and transport customers.

11. TGI confirms that the current project schedule for the LNG storage facility supports TGI's ability to provide firm transportation service to BC Hydro for the proposed DPP facility commencing in 2007. TGI has applied for a CPCN for the LNG project on the basis that it is part of the most cost-effective solution for meeting the demand requirements on Vancouver Island including BC Hydro's requirements. TGI has completed the regulatory review process regarding its application for a CPCN for the LNG facility and is currently awaiting a Decision from the Commission.

12. At the Commission's request, TGI has provided a key milestone schedule for the LNG project in its letter dated November 25, 2004 (Exhibit C18-12), which indicated that necessary approvals for the LNG project are required by February 28, 2005 to ensure firm service to the DPP facility can be provided in the winter of 2007. In addition TGI noted, "that any delays beyond this could impact the cost of the project and may require bridging options to meet the expected requirements during the winter of 2007/08". The costs of delay or bridging options have not been included in TGI's assessment of transportation costs provided to BC Hydro for use in the CFT evaluation.

13. TGI's LNG storage project schedule is compatible with the Duke Point Milestone schedule provided by BC Hydro in Exhibit B-2, and with the Commission's intention to issue a Decision on BC Hydro's EPA application by February 17, 2005. If the Commission approves the EPA, BC Hydro will be committing to a 25-year firm contract with Duke Point Power which in turn will be commencing construction of the proposed generation facility in March 2005. TGI does not intend to proceed with any major expansions on its system without transportation agreements in place. In order to ensure the LNG project can proceed and that that firm gas transportation service will be available in 2007 to support the BC Hydro's dependable capacity requirements based on the costs discussed in this proceeding, BC Hydro will need to expeditiously enter into a long-term transportation arrangement with TGI.

14. BC Hydro's evidence in this proceeding was that the CFT process sought a long-term reliable solution for the capacity problem on Vancouver Island. In response to a question from Mr. Wallace on the CFT focus on long-term dependable capacity, Ms. Van Ruyven stated:

Well, we always were trying to resolve a long-term problem on Vancouver Island. We are looking for a long-term solution to meet our capacity shortfalls, to replace a long-term asset that we've had there for some 50 years. So we always were looking long term. We were never looking for a short-term solution (Tr. 6, p. 1098, l. 22 – p. 1099, l.2)

TGVI submits that it is appropriate for a long-term dependable generation facility to be served by corresponding firm long-term gas transportation arrangements. The 97% availability criterion in the CFT, which seeks to mitigate electricity reliability concerns, must also be accompanied by corresponding reliability in the gas transportation arrangements to ensure the electricity from the Duke Point plant will be there when needed.

II. Gas Transportation Costs

15. TGVI confirms that the transportation costs that BC Hydro used in the evaluation of the CFT proposals are based on the indicative tolls provided by TGVI in its September 9, 2004 Report (Exhibit B-9, BCH IR Response 1.23.5, Attachment 1). Section 3.2 of the report confirms that the development of the indicative tolls are based on current assumptions on costs, and system loads, as well as the application of cost allocation and rate design methodology based on the current BCUC approved principles.

16. TGVI also confirms that during LNG CPCN proceedings the assumptions underlying the tolls were updated which has resulted in an impact on the indicative tolls to BC Hydro. As stated by Mr. Simpson in his Direct Testimony (Exhibit B-35, Answer to Question 9), the principal change is a reduction in the long-term demand for the Vancouver Island Joint Venture ("VIGJV"). This reduces the requirement for new facilities to meet the demand of ICP and DPP, however it also has the net impact of higher transport tolls due to the lower expected throughput on TGVI's system. TGVI agrees with Mr. Simpson's estimate that this results in an estimated impact of approximately \$2 million per year to serve both the ICP and the DPP facility, or \$1.0 million for each facility. As stated by Mr. Simpson at Tr.6, p. 1210, ll. 13 to 22, the NPV impact to transportation tolls to DPP is approximately \$10 million.

17. In JIESC's filed evidence, Mr. Guenther states that he believes BC Hydro had missed three major cost elements that need to be reflected in TGVI tolls (Exhibit C19-11, p. 4 l.39 to p. 6, l.3). These cost elements were related to LNG Facility related costs, the loss of the Royalty Credits, and impact of the Repayable Government loans. In cross-examination, Mr. Guenther, however, confirmed that these elements were included in the TGVI costs that were used to develop indicative tolls for BC Hydro.

Tr.12, p. 2523, ll. 19-25

Tr. 12 p. 2527, ll. 4 – 15

Tr. 12, p. 2527, l.16 to p. 2529 l. 5

18. In cross-examination, Mr. Guenther clarified his earlier evidence, saying that although the cost elements related to the royalty credits and the government loans were included in the tolling estimates, the ability for TGVl to recover those costs from the residential and commercial customers are based on the assumptions TGVl made for competitive fuels and natural gas costs. Mr. Guenther's position is that given the soft cap mechanism used by TGVl to set rates for core market customers, to the degree that there is no competitive room to recover all of those costs, there will be pressure on the transportation tolls and that those risks were not reflected in the potential toll to BC Hydro to serve the DPP facility.

Tr. 12, p. 2528, ll. 18-20

Tr. 12, p. 2530, ll. 18-19

19. TGVl submits that the risks associated with the royalty credits and government loans that Mr. Guenther identified already exist with respect to BC Hydro's transportation service to the existing ICP facility, and do not increase if the proposed DPP project proceeds. It is therefore not an incremental risk that needs to be addressed in the DPP evaluation. Mr. Simpson agreed with this position in his response to Mr. Wallace at Tr. 6, p. 1321, ll. 12-17. In addition, to the degree that the provision of transportation service improves the financial viability of TGVl these risks to BC Hydro are actually reduced. This was discussed with Mr. Guenther at Tr. 12, p. 2534, ll. 7-16:

MR. JOHNSON: Okay. And you would you agree with me, Mr. Guenther, that with respect to these – this evidence that you've put forward, and the risks to B.C. Hydro, would you agree with me that the construction and operation of the Duke Point project, if it improves the financial viability of Terasen Gas (Vancouver Island), will have the effect of reducing the risks to B.C. Hydro.

MR. GUENTHER: That's possible, all other things being equal. It doesn't change the risk of the gas prices and the competitive prices.

C. GAS TRANSPORTATION SERVICE AGREEMENTS

20. In the VIGP Decision, the Commission noted that as an alternative to the proposed GSX pipeline project, TGVl proposed to expand its system to serve existing and new loads on Vancouver Island based on a portfolio of compression, pipeline looping and an LNG storage facility (page 43, section 5.9.3). The Commission did not make a determination of the relative costs of GSX transportation as compared to TGVl transportation, however it did indicate that it expected BC Hydro to consider alternate transportation options. At page 82 of the VIGP Decision, the Commission states:

For the purposes of the CFT, the Commission Panel encourages BC Hydro to accept long-term transportation service from TGVl equally as well as it would be prepared to accept a proposal using GSX transportation. If BC Hydro proceeds with the CFT, it should ensure that there is good evidence for all gas transportation alternatives to GSX so that such alternatives can be fairly evaluated.

21. The evidence in this proceeding shows that following the VIGP decision, TGVl and BC Hydro have had on-going discussions regarding long-term transportation arrangements for ICP and any gas fired generation that may result from the CFT, and TGVl has continued to develop its LNG facility in order to be in a position to meet BC Hydro's firm requirements in 2007. Subsequently the GSX project has been terminated and BC Hydro has confirmed its intention to use the TGVl system to meet the transportation requirements for DPP if the EPA is approved and for the existing ICP facility.

22. As discussed in the VIGP Decision, BC Hydro indicated that the expected annual costs for GSX transportation service was \$42 million, 50% of which would apply to VIGP (page 42, section 5.9.1) for an average toll of \$1.28/GJ. In addition the Commission found that TGVl on-island charges of \$0.60/GJ would likely apply to deliveries to VIGP if the GSX project proceeded (page 46, paragraph 3). These two charges equate to an average cost of \$1.88/GJ for gas transportation. This is significantly higher than the expected tolls for firm transportation service for DPP on TGVl's system as described in TGVl's Report discussed in paragraph 10, and provides significant savings to BC Hydro versus the VIGP/GSX solution it proposed in 2003.

23. BC Hydro recognizes that TGVl's position is that it will not embark on a major expansion of its system without long-term agreements in place, and that TGVl will need to proceed with the LNG storage facility in March 2005 if the facility is to be in service to allow TGVl to meet the firm requirements for the proposed DPP facility in 2007. However BC Hydro continues to state that it believes that agreements do not need to be in place before November 2005 (Paragraph 50 of BC Hydro Submission), and states that it may mean that the LNG facility does not proceed for 2007 in-service.

MR. SIMPSON: A: Well, Mr. Quail, I think this gets back to the development risk assessment that we did for gas transportation for the Duke Point Project. And we believe that although the LNG facility may not -- if we don't make a commitment before November 2005, it may be difficult for Terasen to get the LNG facility in by 2007. We believe that they can get a compression expansion in by 2007, which would supply most of the requirements of Duke Point.

Tr. 7, p. 1588, ll. 15-23:

MR. SIMPSON: Well, I think the magic about November 2005 is that our understanding is that a compressor facility proceeding on a normal schedule can be done within two

years. So that means that if we were to select the option or negotiate an arrangement with Terasen to do a compressor expansion under a short-term agreement, as long as that agreement was in place by November 2005, there shouldn't be any physical problem in terms of getting the necessary facilities in place.

Tr. 8, p. 1714, l.24 – p. 1715, l.7

24. TGI has applied for a CPCN for the LNG storage facility on the basis that it is the most cost-effective solution to meet the long-term demand its system, including serving the generation facilities, and is expecting a Decision by the end of February. The LNG CPCN proceedings are the appropriate forum for determining the correct solution for gas facility additions required to serve Vancouver Island. A delay in putting arrangements in place may result in a delay in meeting DPP's firm requirements or may result in a sub-optimal portfolio of gas facilities being put in place, both of which will impact the costs to serve TGI's sales and transport customers. These costs have not been evaluated or included in TGI's assessment of transportation costs used by BC Hydro for the CFT evaluation discussed in these submissions.

25. BC Hydro suggests that it may not require a long-term agreement with TGI, and has indicated that the current agreements that are in place to serve the Island Cogeneration plant form a precedent for short-term arrangements and also for BC Hydro to fund compressor facility additions on TGI's system. Those agreements are attached to BC Hydro's response to BCUC IR1.23.4 in Exhibit B-9. TGI does not agree with the BC Hydro position. The structure of the current ICP agreements was based on providing short-term transportation service to BC Hydro until such time the proposed GSX pipeline was put in service as evidenced by BCUC Order G-94-01, Appendix A, page 3, section 1.3:

On April 6, 2001, B.C. Hydro applied for approval of a Transportation Service Agreement ("BCH TSA") and Peaking Agreement ("BCH PA"). The BCH TSA will provide firm and interruptible transportation service over the Centra Gas system to the ICLP Plant until the proposed Georgia Strait Crossing Pipeline is completed, now scheduled for late 2003.

26. The Agreements have been amended from time to time to extend the expiry date due to the delays in the GSX and the VIGP projects. BCUC Order G-3-05 recently approved further extension of the agreements, however at paragraph K on page 2 noted that:

The Commission is prepared to deal with these short term agreements on an expedited bases with the expectation that rates, capacity requirements and other factors will be considered more fully at some future date, such as when the terms of a firm long term transportation service agreement with BC Hydro come before the Commission;

27. The evidence shows that TGI is expected to provide transportation capacity from Huntingdon to ICP and DPP on Vancouver Island. TGI agrees with BC Hydro's assertion in

paragraph 48 of its submission and in the response to JIESC B-12 IR 1.2.0 (a) that “the Sumas/Huntingdon market is sufficiently liquid for the purposes of forecasting gas prices and executing transactions in the market” and that, should it be cost-effective or lower risk to do so, it is reasonable to assume that the transportation market is sufficiently liquid that gas transportation from Station 2 to Huntingdon/Sumas could be acquired. While this argument applies to larger gas markets like Station 2 and Sumas/Huntingdon it cannot be extended to all gas markets, particularly delivery points on Vancouver Island. It is TGVl’s position that this portion of the gas transportation required for supply to DPP (Huntingdon to DPP) can be relied on only if BC Hydro makes a long-term commitment to gas transportation.

28. If the Commission approves the EPA, BC Hydro will be making a 25-year contractual commitment to Duke Point Power. The GSX project has been terminated and BC Hydro has shown its intent to use the TGVl system to meet its gas transportation requirements. TGVl is prepared to enter into a long-term contract to provide firm transportation service to both ICP and DPP in time to allow for the construction of the LNG storage facility to meet BC Hydro’s firm requirements for 2007.

D. CONCLUSION

29. TGVl submits that the evidence in this proceeding support the requirement for on-Island generation to meet BC Hydro’s electric capacity and reliability requirements for Vancouver Island commencing in 2007. In addition TGVl agrees that the DPP project will allow BC Hydro to meet this requirement.

30. In establishing the scope of the review for these proceedings, the Commission determined that BC Hydro has the burden of establishing that gas transportation service will be available to Duke Point. In addition, the Commission determined that the gas transportation costs submitted by TGVl to BC Hydro for the purposes of a CFT are relevant and that the onus is on BC Hydro to ensure that evidence is provided to support the gas transportation costs used in the QEM.

31. TGVl submits that the evidence provided in these proceedings confirms that BC Hydro intends to use the TGVl system to meet its gas transportation requirements and that the transportation costs used by BC Hydro in the QEM model represent the expected gas transportation costs provided to BC Hydro by TGVl. These costs are based on the construction and operation of TGVl’s proposed LNG facility and indicative tolls were developed based on current approved rate design and cost allocation principles.

32. TGVI has applied for a CPCN approval of the LNG Storage Facility. If the CPCN is granted, and the Commission approves the EPA, then TGVI will be able to provide firm transportation service to ICP and DPP based on the costs used by BC Hydro in the CFT evaluation if BC Hydro promptly enters into a long-term contract with TGVI that supports construction of the LNG Storage Facility for service in 2007 and other additions as required on the TGVI system.

All of which is respectfully submitted on February 4, 2005.

Original signed by Tom Loski

For: _____

Scott A. Thomson
Vice President, Finance & Regulatory Affairs
Terasen Gas (Vancouver Island) Inc.