



**British Columbia Hydro and Power Authority  
Call for Tenders for Capacity on Vancouver Island  
Review of Electricity Purchase Agreement –  
Project No. 3698354**

**FINAL ARGUMENT**

**On Behalf of the  
Commercial Energy Consumers of British Columbia**

**04 February 2005**

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**BC Hydro Vancouver Island Call for Tenders**  
**Energy Purchase Agreement Review**

For the reasons presented below in its final argument, the Commercial Energy Consumers of BC ask the BC Utilities Commission to deny approval of the filed Energy Purchase Agreement between BC Hydro/Duke Point Power Inc.

**INTRODUCTION**

The CEC appreciates that the Vancouver Island Call for Capacity was the first to be issued under the current provincial energy policy, released as the 2002 Energy Plan. And the CEC recognized that procedures for all parties, including the purchaser, the vendor, the regulator, and the customers were likely to be uncertain, as expectations based on past practices may not be met.

We regret BC Hydro has had to go through agony over what to do for Vancouver Island. (Exhibit B-55) That seems a bit unusual given the number of solutions during the last decade that have been proposed as cost-effective and in the interest of the customers. So we do not know whether the agony has been due to projects' fleeting economics, fleeing partners, and non-accommodating ratepayers or whether the reverse is true and the projects have not moved ahead due to the business changes at BC Hydro, also causing agony, drawing attention and focus away from the job at hand.

The Commission cannot ignore the linkage between this EPA submitted by an electric distribution utility and another matter before it, the Terasen Vancouver Island's, a natural gas distribution utility, LNG Plant Certificate of Public Convenience and Necessity. It is unprecedented that there are concurrent applications from two separate and different utilities before the Commission with one poised to proceed with the project only if Commission approval is obtained for the other. As a result, approval of the EPA will cause expansion of the natural gas infrastructure on Vancouver Island where the existing transportation and distribution system now cannot recover its full costs from ratepayers. This situation needs a higher profile before policy makers and regulators.

As surprised as BC Hydro was with the public interest (T. 400, lines 11 to 14) in the filed Energy Purchase Agreement, so too are ratepayers surprised at the continuing disconnect between BC Hydro and its ratepayers. In all BC Hydro matters the ratepayer is the risk holder. In this situation, it is only reasonable and responsible behaviour to participate as possible in regulatory proceedings to ensure that the shareholder's perspective is balanced against that of the ratepayers.

The CEC is also surprised to find BC Hydro, owner of hydro generating stations and one of the largest electric transmission systems in the world, putting forth contracts for natural gas transportation and a natural gas-fired generation plant as the capacity resource addition of choice because it has not been possible to maintain a reliable transmission system. So if BC Hydro is still wondering about "heightened sensitivities" (Final Argument 109) and "strong feelings" and looking for a "balanced assessment" they simply need to take the long view, both back in time and going forward. They will see that ratepayers are the balance, having paid in the past, paying now and preparing to pay in the future.

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It is also of concern that a distribution utility, BC Hydro, is taking on natural gas purchasing and portfolio as part of its core business. Interpretation of the Policy Action --- implied that BC Hydro Distribution would be only taking delivery of electricity for distribution to its customers and would not be taking any commercial position in the supply of electricity for which it contracts. Managing fuel transportation and fuel supply for contract suppliers is not a normal electricity distribution activity.

The CEC is focused on minimizing the ratepayer impact of BC Hydro's resource acquisition decisions. Ratepayers discern a recognizable difference between the risk profiles for resource acquisitions from market purchases, long-term contract purchases, and utility power projects. Appreciating that the 2002 Energy Policy has asked for private development of new power projects in BC and that the ratepayers interest would be best served by a level playing field for energy suppliers, it is surprising that BC Hydro perceives that bestowing benefits on some private power development types is appropriate to produce a cost-effective long-term contract.

In order to deal with the denial of the CPCN application for VIGP (Policy Action 6, 2002 Energy Plan) BC Hydro quickly proposed an alternate procedure that the BCUC, as quickly, accepted. BC Hydro has struggled to be seen by its customers as acting in their best interests throughout the VIGP process and now throughout the CFT process. The Call for Tender process, and the results have not been satisfactory from the ratepayers' perspective. BC Hydro has demonstrated resource bias throughout, has conducted an overly restrictive CFT process with an overly restrictive EPA to the detriment of ratepayers and an unfortunate overstatement of the problems that need to be addressed. The areas of concern are:

1. Resource Bias
  - a. CFT evaluation bias
  - b. Risk management bias
  - c. Cost-effectiveness test bias
  - d. Timing driver bias
  - e. Demand-side management bias
  - f. Decision premium bias
2. Restrictive Process
  - a. Restrictive CFT process and EPA terms
  - b. BC Hydro admission that EPA is not most cost-effective under the CFT
3. Capacity Forecast
  - a. Load Forecast
  - b. Demand Side Management

The scope of the Independent Reviewer was restricted to process and was not sufficient to identify the variety of biases favouring the one resource type embedded throughout the process. The CFT has been plagued by bias throughout its design and process. It has proven to be a triumph of process over substance ill fitted to producing results in the ratepayers' best interests or in the public interest.

Regrettably, It is the CEC's position consistent with other customer and ratepayer groups that significant bias has been built into BC Hydro's processes that the CFT design and EPA were too restrictive and that the capacity forecasts have not accounted for future reductions. It is the CEC's position as such that it is not reasonable to accept BC Hydro's submission that the filed EPA for

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the DPP project represents the most cost-effective resource solution for ratepayers for the anticipated resource short-fall on Vancouver Island in 2007/08 and 2008/09.

The cost-effectiveness analysis fails to show that ratepayers will be better off with this EPA because it has been artificially constructed with a set of resources designed to support the outcome. When the artificial resource choices are replaced with reasonable comparative choices the analysis shows that the Tier 1 DPP solution is not in the ratepayers best interest. Ultimately the Commission must look at this test, one it has defined as critical to the scope of this hearing, strip away the artificiality and conclude as ratepayers have concluded that the EPA before the Commission is not the most cost effective for the ratepayers and is not in the public interest.

### **1.a) VIGP Costs allocated to customers on signing EPA is a violation of Commission Order G-54-04**

**CEC evidence is the most direct on this issue.**

The CEC evidence is contained in Exhibit C 32 – 3. It outlines a problem with respect to the BC Hydro treatment of the VIGP Assets and how the CFT bids have been evaluated.

That problem is that BC Hydro has in the CFT process offered the VIGP assets evaluated as a free contribution. If one of the bidders were to win using the VIGP assets and an EPA were to be signed the customers would then have incurred a legal requirement to be paying for those assets in their capacity charges. This result has in fact occurred. BC Hydro has in fact signed an EPA with DPP and the customers have in effect been allocated those costs. This has been done in violation of the Commission's own order that these expenses are to remain in a deferral account until the Commission can hear evidence on the appropriate disposition of these costs after the CFT process. BC Hydro has achieved through the back door what it was prohibited from doing through the front door. This has resulted in a significant and improper bias in its bidding process.

BC Hydro seems to believe that when the payment for the VIGP assets is made that the ratepayers will be relieved of risk. They seem to believe that the \$50 million will be applied to future rates. Nothing could be further from the truth. The offer of the credit to the proponent starts the process of committing the ratepayers to pay in direct contravention of a Commission decision to defer the costs until after this CFT hearing. (Transcript Volume 12, Page 2639, lines 13 to 26, Page 2640, lines 1 to 6)

BC Hydro proposes that the liability for the VIGP asset costs would have been relieved by virtue of the receipt of funds from the project. This would be true if it stopped at that. However, because BC Hydro has signed an EPA with a project proponent that will pay for those assets and because in the evaluation of the project against competing projects they were provided a \$50 million credit. This meant that their project appeared \$50 million cheaper than it should have had BC Hydro respected the Commission order not to determine the disposition of those costs until after the Commission holds a hearing with respect to those costs. The result is an improper bias for a VIGP type project. The result now is that the customers are committed to an EPA that will charge them for those costs, but for the fact that the Commission has to rule on whether or not the EPA is acceptable or to reject it. If the Commission does approve the EPA it will become complicit in violating its own order and become the final step in allocating those costs to the customers, without a hearing. It will have

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further biased its position prior to a hearing it has lead the customers to believe they would have as an opportunity to deal with the responsibility for those asset costs.

Mr. Sanderson's cross-examination of Mr. Craig did nothing to undo the CEC evidence but really helped to sharpen the point on the evidence by identifying clearly the issues of when the allocation of costs to customers takes place in the process. It does not happen in the CFT; that is only an offer to allocate the costs to customers. It does not happen on signing the EPA; that is simply a contingent commitment to allocate the costs to the customers. It does happen and become final if the Commission approves the EPA removing the contingency.

In cross-examination of Ms Hemmingsen on this issue of VIGP assets she refers everyone to the BC Hydro response to question 118 in the CFT process. (Transcript Volume 7, Page 1534, lines 3 to 12) The full text of the Q118 response is contained in the CEC evidence Exhibit C32-3 and was filled by BC Hydro in response to cross-examination as Exhibit B-61.

The cross-examination attempted to gain agreement on the components of the VIGP asset transaction with the proponent. (Transcript Volume 7 Pages 1534 to 1540)

The transaction components discussed were as follows:

1. Transfer of Assets to the proponent
2. Receipt of Cash for the Assets
3. Payment of Cash for charges from the proponent.

Throughout the cross-examination Ms. Hemmingsen agreed that the cash flows of payment for the assets and energy charges from the proponent would net out, or that the transfer of assets and the receipt of cash for the assets would net out. She was not prepared to admit to the third element in the transaction. That there is either a net benefit of the assets transferred to the proponent or a net charge to customers for those assets because of the evaluation credits. She refers to the answers in Question 118 and then the cross-examination is cut-off.

So if we examine Exhibit B-61 we find the answer clearly identifying that the proponent picking up the VIGP assets is receiving a benefit over and above other bidders.

“• To the extent that the VIGP Development Assets have value in excess of salvage value (estimated to be \$20 million), a bidder's cost to complete VIGP should be lower than the cost to complete an identical project that does not utilize the VIGP Development Assets. This additional value, if any, simply reflects existing circumstances. This factor is only one of many factors, including capital costs, O&M costs, fuel costs and cost of capital, that will determine the competitiveness of a VIGP Tender or a non- VIGP Tender.”  
(Exhibit B-61, Page 1 of 4, last paragraph)

Here we have the admission that a benefit is being transferred to the proponent that chooses the VIGP Election. The rationale is that it simply reflects existing circumstances. Unfortunately it does not reflect the existing circumstances properly. The existing circumstances are that these costs are not yet allocated to customers or the shareholder they are held in a deferral account awaiting a Commission decision. It is therefore inappropriate to transfer assets or the benefit of assets to the proponent without a charge. Well, BC Hydro correctly charges them for the assets but then turns

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around and provides a credit for the cash receipt nullifying the charge for the assets and thus transferring the assets for free and contingently at the customer or ratepayer expense.

Mr. Sanderson suggested that at this point the math could be elaborated in argument and the Chair agreed.

Well the accounting and math are very simple.

There are three transactions and accounting transactions to match, which take place related to the transfer of the VIGP assets to DPP as the proponent benefiting from this provision. They are as follows:

<u>Transaction</u>	<u>Debit Side</u>	<u>Credit Side</u>
1. Transfer of Assets	Dr Accounts Receivable	Cr Assets (VIGP Deferral Account)
2. Payment for Assets	Dr Cash	Cr Accounts Receivable
3. Charge for Electricity	Dr Cost of Energy	Cr Cash

If you net out the cash flows, with a credit in the evaluation, as BC Hydro has done you still get the transfer of assets to the proponent as BC Hydro has admitted in the answer to Question 118, and the charge goes to the customers in the capacity charges.

The transfer of assets to a proponent in a bidding competition is wholesale bias and inappropriate where the objective of the process is to seek the best interests of the ratepayers.

There is an allure of logic to the BC Hydro case because it is consistent for the two parts of the transaction they account for. The fact that they are missing one of the components and miss the effective cost allocation to customers appears lost in the logic of the two components they did get. The Commission needs to look at all the components and not be fooled by the partial logic BC Hydro has used.

“The *CFT* evaluation methodology is designed to determine the most cost-effective Dependable Capacity for Vancouver Island, having regard to the best interests of BC Hydro's ratepayers.”  
(Exhibit B-61, Page 1 of 1, top paragraph)

Where the those assets either have recoverable value to the customers or may not become a customer cost responsibility it is as a matter of principle inappropriate to transfer such a benefit to a proponent in a competitive bidding process because it creates an unalterable bias toward that proponents bid.

It is instructive that BC Hydro witnesses were reluctant to provide their judgment as to the appropriateness of making a cash transfer or an asset value transfer to a proponent in a bid process. The problem is because it comes so close to being a parallel characterization to a subsidy for a particular type of bid.

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It is vital that the Commission understand the facts that BC Hydro has admitted to and the nature of the math so that the factual nature of the transfer of value is clear. It is then important for the Commission to think long and hard about the proper principle for doing evaluation to ensure that this hearing does not result in embedding improper principle into BC Hydro's resource acquisition, EPA process.

All of BC Hydro's witnesses refused to discuss the principles preferring to deal with specific circumstances. Only the CEC witness was prepared to discuss the proper principles. The Commission should give considerable weight to this and look closely to see why this principle should be a guide.

*The principle is that when considering the ratepayers best interests; it is inappropriate to transfer customer value to a proponent in a competitive acquisition process because it creates a bias toward that proponent in preference to others; an unlevel playing field.*

If the Commission determines that it wants to approve the EPA for whatever reason it should at least leave open the appropriate principles for these processes so that they can be the subject of consideration in the IEP process and subsequent Commission review.

BC Hydro after referring to the Q118 response then refers to the Independent Reviewer as another party with whom BC Hydro reviewed this decision. (Transcript Volume 7, Page 1540, line 9 to 13)

When the CEC pursued this with the Independent Reviewer ("IR") it became clear that while the IR did review it and did affirm their view that it was fair and appropriate as far as they were concerned. (Transcript Volume 8, Page 1836, lines 3 to 8)

The IR agreed that if there was some part of the evaluation that was not meeting the objective of being cost effective for the ratepayers it could be considered unfair. (Transcript Volume 8, Page 1832, line 26, Page 1833, lines 1 to 6)

The IR admitted they had no ability whatsoever to consider anything deeper than process. They found the accounting and valuation aspects beyond their scope. They were unable to address a very basic question in regard to the appropriate discounted cash flow evaluation of value transfers between BC Hydro and the proponents. (Transcript Volume 8, Page 1837, lines 23 to 26)

As far as they could go was to confirm that there would be three components to the transaction. After that they had no idea what the evaluation facts really were. (Transcript Volume 8, Page 1838 lines 13 to 26, Page 1839 lines 1 to 2)  
(Transcript Volume 8, Page 1841, lines 25 to 26, Page 1842, lines 1 to 3)  
(Transcript Volume 8, Page 1842, lines 4 to 7)

Also they did not have an opinion on the principle of transferring assets or benefits to a proponent. They were restricting themselves to process issues only. (Transcript Volume 8, Page 1847, lines 4 to 16)

The evidence is that BC Hydro disclosed what it was doing to proponents and from the IR point of view so long as they did what they said they would do, the IR believes the process was fair. Well



that is a definition of fairness, procedural fairness and the IR has concluded that it was procedurally fair.

However, it does not deal with the substance and the evaluation bias or unfairness, which must be measured against the objectives of the evaluation. In this case the evidence is clear that BC Hydro has provided a benefit to one type of proponent over others. This results in evaluation bias.

This points out a colossal problem in the way BC Hydro has chosen to conduct the process. They have concerned themselves with process and invested significant funds in reviewing process. Unfortunately they did not do the same with respect to the financial evaluation, preferring to rely on internal resources and doing so without sufficient internal critique or competent external independent evaluation able to deal in the substance and principles for proper evaluation.

The first problem in providing the VIGP Assets, at no evaluated cost, as a benefit to one type of proponent is that it has created an evaluation bias in favour of that type of proponent over others. No matter how procedurally fair it might be it remains unfair in terms of providing a level playing field for the bidders.

The second problem is that in providing a benefit to one type of project the result is one, which does not meet the objective of being most cost-effective for the ratepayers. It leads to a less cost-effective solution.

The third problem is that BC Hydro in providing a credit for the assets transferred to a proponent electing to take the VIGP assets is that it results in the customers being allocated those cost. This is a violation of a Commission order G-54-04. The process provided for in that order has been pre-empted by BC Hydro's allocation to customers through provision of a credit.

The fourth problem with the proposal that Commission endorse an EPA based on a violation of Commission order is that the Commission then participates in the violation of its own order and more importantly locks the decision in as a charge allocated to the customers.

The fifth problem becomes a subsequent hearing into the deferral account if the EPA is approved. With the Commission's approval then the subsequent hearing on the deferral account is prejudiced by the Commission's own decision, making the hearing biased from the start.

BC Hydro in argument tries to dismiss this issue as a failure on the part of the CEC to realize that these are not assets because they have been written off. This bizarre argument is made in the face of BC Hydro's own characterization of these as assets in a VIGP Asset Transfer transaction with DPP. It defies logic; they are by all agreements in a deferral account awaiting a decision of the Commission but BC Hydro argues they have been written off. From the ratepayers' perspective, so long as they are in a deferral account, awaiting disposition by the Commission, they represent a deferred cost asset that may be charged to customers.

The cross-examination of the CEC witness on this subject did not deal with the bulk of the evidence on the problems presented and did not deal at all with the principles put forward. The evidence stands as the best reference for the Commission on this subject and the CEC anticipates that it will give it significant weight when determining how this point has added to the overall bias problems accumulated in this EPA.



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## **1.b) Cost effectiveness No Award scenario with straw-man (non-dispatchable) false**

BC Hydro's evidence on the content of the Tier 2 option and the No Award option is that they both contain the Norske proposal because it is by far and away the cheapest way to deal with bridging the capacity problems until a more permanent solution is in place. The No Award option uses temporary generators for a couple of years until the 230 KV line is installed. Then both options are constructed to use backfill energy from the Mainland.

Most interestingly the Tier 1 DPP plant has been credited with energy values including a \$172 energy margin, while the Tier 2 energy value and the No Award option are credited with zero (0) energy margin. (Transcript Volume 9, Page 1911, lines 19 to 26)

The concern is that there is a substantially different structure to these options artificially put in place to make them fail. The ratepayer interest and public interest require a level playing field and this issue provides the most extraordinary tilt to the cost effectiveness evaluation.

THE CHAIRMAN: What I'm struggling with is the notion n that for the same energy, you're using different methodology to get to the cost and different methodology to get to the value. And the difference is significant.

(Transcript Volume 9, Page 1921, lines 13 to 17)

The evidence is absolutely clear that there is no energy margin in the Tier 2 scenario or the No Award scenario but there is in the DPP Tier1 scenario.

MR. WALLACE: Q: Just then, I thought I'd finished the table, but I guess I gathered a bit more understanding there. We've spoken about the no award energy backfill. Do I take it that the Tier 2 energy backfill was calculated in a similar manner?

MS. HEMMINGSEN: A: It was.

MR. WALLACE: Q: And it would have a similar value.

MS. HEMMINGSEN: A: It has the energy margin attributed to the resource that has a variable component, which would be the biomass unit.

MR. WALLACE: Q: On the backfill?

MS. HEMMINGSEN: A: No, on the 600 --

MR. WALLACE: Q: Yes, but on the 1200 on the backfill was calculated in the same way as the 1800 backfill in the no award?

MS. HEMMINGSEN: A: That's correct.

MR. WALLACE: Q: And is it fair, then, to assume that the 1200 has zero value also?

MS. HEMMINGSEN: A: Well, according to the definition of how the energy margin is calculated, that would be

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true, because there'd be no other variable costs.  
(Transcript Volume 9, Page 1923, lines 5 to 25)

The evidence of why BC Hydro set up the No Award without energy margin was because it is assumed to be a must run, non-dispatchable, plant. The concern appears to be that BC Hydro has been criticized so they made different assumptions.

MR. WALLACE: Q: But I would have thought you would be treating the no award similarly.

MR. PETERSON: A: I don't think we actually computed the energy margin in the cost effective analysis separately for the no award case. We may have to calculate that afterwards, if --

MR. LIN: A: Just to clarify, in the no award scenario, the energy margin may not be necessarily equal to the Tier 1 energy margin, because Tier 1 is assumed to be a dispatchable plant. In the no award, we assume it's a must-run 1800. So subject to confirmation, that may or may not be true. So just to clarify that.

MR. WALLACE: Q: Why would you make a different assumption when you're backfilling on that?

MS. HEMMINGSEN: A: Because we didn't want to backfill with the gas-fired unit, because we've been criticized for doing that, and other resources don't have the same dispatchability, so they tend to be fixed-price, fixed-volume resources. That's what we've got from So with gas-fired resources, you carry the risk of the gas price but you also carry the benefit of dispatchability.

MR. WALLACE: Q: Yes, but if you're -- the only way you moved away from being a gas turbine on the Lower Mainland was that you said "We use the gas costs," as I understand it, and then confirmed them against your calls. So if you're going to do that, surely you've taken everything from the CCGT anyway, why wouldn't you take --

MS. HEMMINGSEN: A: No, I don't think we did. We said that it's a similar product, it offers a similar firm energy and capacity, and the price of that is \$64, as Mr. Peterson explained. And the way that comes to us, if it's non-gas-fired, is as a fixed price, fixed volume resource.

MR. WALLACE: Q: Okay. If you used -- if you decided the alternative then was a Mainland CCGT, as I thought I understood you did in the material, would it be fair to say the margin would be 172 million then?

MR. PETERSON: A: Not exactly the same, because first of all there is losses to be considered, and the

backfill of the no award starts in fiscal 2010, and not 2008. So there are a couple of years of difference there. So --  
(Transcript Volume 9, Page 1913, lines 8 to 26, Page 1914, lines 1 to 26)

The evidence is absolutely clear that a No Award scenario could have a dispatchable plant on the Mainland.

MR. CRAIG: Q: Thank you, Mr. Chairman. Panel. My name is David Craig, I'm with the Commercial Energy Consumers and my first question is for Mr. Lauckhart. Are you aware of any reason that B.C. Hydro could not have a dispatchable combined cycle plant on the mainland?

MR. LAUCKHART: A: No I'm not.

MR. CRAIG: Q: And would you go so far as to say that that could be done?

MR. LAUCKHART: A: Put a dispatchable combined cycle plant on the mainland?

MR. CRAIG: Q: Right.

MR. LAUCKHART: A: I think it could be done.

(Transcript Volume 14, Page 3005, lines 12 to 24)

Evidence of what the No Award cost-effectiveness would be with a dispatchable plant providing the back fill energy is that it is not quite the same as the \$172 million for the Tier 1 case because of the first couple of years being provided by the temporary generators. (Transcript Volume 9, Page 1914, lines 1 to 26) So it is clear that this provides a swing in the evaluation BC Hydro used of about \$150 million between the Tier 1 case and the No Award case and a swing of about \$115 million between the Tier 1 and the Tier 2 case. These represent the most critical bias and cannot be allowed to stand.

The Commission set out to test the Tier 1, versus the Tier 2 and the No Award case as one of the clear elements of the scope of this hearing. The Commission must strip away the artificial construction of the alternative options as BC Hydro has laid them out and interpret the evidence on at least a level playing field, if not recognize that there may well be less expensive options to be achieved when it is opened up properly.

The evidence that BC Hydro would have viewed the cost-effectiveness test differently if the premium was high, and particularly if it is this high is clear. They would have been concerned but do not know what they would do, maybe look at some more studies. The ratepayers deserve a better response. Only the Commission can provide the proper response now, the EPA must be denied. BC Hydro should be advised to pursue the most cost-effective options for the ratepayer and public interest.

MR. CRAIG: Q: Fair enough. Then would have at least considered doing that. Because you were giving recommendations, you would have recommended that they should look at doing that.

MS. HEMMINGSEN: A: I might have been concerned myself, had the expected scenarios produced an outcome where there was a premium well over a million dollars. But I can't speak to what the executive would --  
(Transcript Volume 9, 2019, lines 17 to 24)

This transcript should be corrected to read “a hundred million dollars” not “a million dollars”. The evidence on the proper course of action is on the record, a shift to an open call to secure the most economic resource. The customers and the ratepayers believe that BC Hydro needs to do this and needs to clean up its EPA evaluation process so that it does not contain the extensive array of biases that have plagued BC Hydro through this process.

pointed out to me, Mr. Lin, is that the no award option essentially is peakers for a few years, and then you can go out and do something different, and one of those different things might be a coal plant on Vancouver Island, for example, might not?  
MS. HEMMINGSEN: A: Well, I suspect we'd run an open call and we would secure the most economic resource.  
MR. WALLACE: Q: Okay. Wherever it was located?  
MS. HEMMINGSEN: A: Wherever it was located, reflecting locational values.  
(Transcript Volume 9, Page 1930, lines 1 to 10)

### **1.c) Gas risk being absorbed by the customers creates a bias favouring VIGP projects**

BC Hydro has taken on the gas risk for a natural gas fired plant but was not prepared to accept risk for other fuel type projects. BC Hydro asserts it did this to support active competition and ensure a cost-effective outcome for ratepayers. BC Hydro asserts that it has chosen its approach to different projects based on its capacity to manage gas supply, its portfolio of contracts and its ability to manage gas in relation to the power market opportunities.

Why does BC Hydro do this?

“Each type of bidder is more or less well-suited to meet BC Hydro’s specific needs and BC Hydro was correct not to forsake a CFT process designed to serve its ratepayers’ interests so as to accommodate the needs of specific bidders. As Mr. Sorensen put it, a contract that must be performed in Ottawa may impose additional costs on non-Ottawa bidders; but it is not discriminatory to decline to pay the transportation costs of those who do not live in Ottawa.”

In fact what BC Hydro did was to forsake a level playing field and cater to one type of project the natural gas fueled projects. BC Hydro agrees that taking on the gas supply risk in the way it has results in a transfer of value from its customers to a particular proponent.

Mr. Sorensen’s example is instructive. What BC Hydro has done is pay for the cost of transportation including the gas to get a type of proponent onto Vancouver Island where the

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capacity is needed but failed to provide any benefit to those on the Island. This has resulted in a clear and direct resource bias. As Mr. Sorensen said it would not be discriminatory for BC Hydro to decline to pay for the transportation costs or fuel to get a proponent to the location where the service is required. In this case the service is required on the Island and BC Hydro is paying to help one project type get there.

By failing to provide a level playing field BC Hydro has failed to provide its customers with the opportunity to obtain from the market critical information to allow the appropriate trade offs to be made between capital plant investment and fuel supply security and price. This would have served the ratepayers interests and the public interest but has not been achieved.

BC Hydro does not think it is transferring customer value to a proponent because it says in argument that it can add to its gas portfolio and management requirements without additional resources and that its success is undiminished by using its capabilities to service the DPP project.

### **Tolling**

This has been tested in evidence with respect to its provision of the tolling option for providing gas transportation to a natural gas fired plant to the benefit of the DPP proponent bid.

BC Hydro is providing the tolling option to avoid illiquidity premiums, which would create costs that BC Hydro does not think need to be incurred. (Transcript Volume 7, Page 1541, lines 7 to 26)

BC Hydro does not think there are any tradeoffs to providing this service or any costs to doing so. (Transcript Volume 7, Page 1542, lines 12 to 23)

BC Hydro believes it benefits gas-fired proponents as well as proponents of smaller fixed-price bids. (Transcript Volume 8, Page 1548, lines 3 to 16). There is evidence that BC Hydro has not contracted and secured this transportation and is relying on the regulatory process to provide it when required. There is evidence that this exposes BC Hydro and its customers to certain risks in Terasen's transportation and gas costs such as the potential loss of royalty credits in about 2010. (Transcript Volume 6, Pages 1319 to 1321) Potential to Increase due to loss of royalty credits) Further there is evidence that BC Hydro has selected for evaluation purposes a lower toll scenario from two they were offered informally by Terasen. (Transcript Volume 6, Page 1322, lines 4 to 16) There remains a risk that these tolls will be higher not lower in the future. There is evidence that the costs for an LNG plant on the Island and for reductions in load by industrial customers may fall to BC Hydro and its customers. To the extent BC Hydro is able to negotiate out of this in the future the costs may fall through to gas customers depending on Terasen and BCUC regulatory decisions.

So while on the one hand the BC Hydro capability provides assistance in lowering costs the acceptance of all the risks for tolling takes on potential risks for customers which have not been evaluated in the evaluation of the projects. The result relative to other project that have had to guarantee supply and transportation is an unlevel playing field and resource bias.

### **Energy Margin**

The DDP project has been credited with a calculation of the present value of an energy margin over the next 25 years based on BC Hydro's forecast of gas costs and power market prices. In cross-examination it became apparent that the forecast has an approximately 20% transition jump as forecast methodology changes. BC Hydro defends this in two ways. First they defend with the fact that they have averaged two scenarios, one based on 100% recovery of capital and the other based

on 25% recovery of capital. (Transcript Volume 6, Page 1298, lines 5 to 21) The evaluation is in danger of simply reflecting the BC Hydro assumptions and not the merits of the plant. Second they posit that the supply/demand balance will tighten removing an over supply and increasing the spread between gas and power prices. Further evidence elicited the fact that the 25% scenario has a smooth transition not the jump. Finally there may be competition from other fuels for production of electricity that may not result in the forecast jump in margin. (Transcript Volume 6, Page 1232, lines 4 to 26, Page 1233, lines 1 to 15) The potential that this energy margin is overstated is real and therefore compromises the evaluation and underscores a significant risk that higher unit costs of capacity will in reality be imposed on customers by the signing of this EPA.

It is clear that the risk to customers if the energy margin is not realized is that the plant would not be dispatched and the cost of the capacity on a unit basis would increase. In that event BC Hydro would be buying cheaper power from the market or other sources versus its variable gas cost of production. BC Hydro has tested its expected outcome against a high gas cost low electricity cost scenario to provide a possible alternative, which might occur. (Transcript Volume 7, Page 1552, lines 1 to 26, Page 1553, lines 1 to 21) However, BC Hydro does not have an assessment of the probability of different outcomes and considers it arbitrary to do any such analysis. (Transcript Volume 7, Page 1556, lines 4 to 12) This is very unfortunate because there is nothing more arbitrary than not studying the potential causes of and possibilities for this risk. The customers deserve better. It also means that because BC Hydro has committed to this project other more cost-effective projects will not succeed and the customers will be stuck for the long term with the risk of paying the higher costs.

It is clear from the evidence that BC Hydro through Powerex has the capability to manage the margin available between gas prices and electricity prices and is able to apply this capability to earn income. It is also clear that the potential to earn income is not unlimited. The ability to earn income is dependent on the market place opportunities and it is the limited array of market opportunities that limits the ability to earn the income. (Transcript Volume 8, Page 1556, lines 13 to 26, Page 1557, lines 1 to 24)

In calculating the energy margin BC Hydro uses the market forecast for all power price opportunities and all gas price opportunities. This does not allow for the fact that because Powerex takes advantage of as much of the opportunity as it can, which is its mandate, (Transcript Volume 8, Page 1558, lines 20 to 26, Page 1559, lines 1 to 6) the remaining power price opportunities are not available as a value to be credited to a plant producing power for the BC Hydro system. Only the lower power price at which Powerex will not sell power for resale is appropriate for valuing the energy produced by a plant producing for the system. The values for prices between which the market offers opportunities to sell and Powerex is willing to sell are taken and allocated to the ratepayers as trade income. This is to be protected under the Heritage Contract. To evaluate the energy margin based on a forecast of the full price opportunities effectively creates an unrealizable resource bias. It might also be looked at as a duplicate accounting of the potential energy margin benefits available or a transfer of the trade income from the customer to the DPP proponent.

BC Hydro witnesses tried to suggest that taking on the gas price risk was a benefit to all parties not just the natural gas fired plant projects. (Transcript Volume 7, Page 1559, lines 13 to 25) BC Hydro was not able to quantify the benefit provided and was not in a position to determine the relative benefit to each proponent. (Transcript Volume 7, Page 1560, lines 1 to 8) It is clear from the evidence that while DPP did benefit from BC Hydro taking the risk no such comparable benefit



was evaluated for suppliers based on other fuel sources where they were required to take the fuel risk. The result is that BC Hydro transferred a large credit to the evaluation of the DPP proponent bid a risk it placed on customers, while other proponents basing bids on other fuels had to shoulder the risk themselves and could not transfer it to customers in a similar way. There is no clearer picture of resource bias and an unbalanced playing field.

The risk to the customer is that the DPP plant may not be used at the approximately 83% capacity factor BC Hydro is using and that it may not produce the energy margin value BC Hydro is proposing. BC Hydro has looked at this risk with a high gas cost lower electricity price scenario and determined that this scenario would create an impact on customers of over \$100 million, present value. Also there is evidence provided by the JIESC and provided by BC Hydro in response to the JIESC as to the implications of lower capacity factor scenarios at 20%, 40%, 60% and 80%. These analyses demonstrate substantially lower energy margins for the DPP project should they occur and substantially higher costs to customers than anticipated in BC Hydro's evaluation. No probability has been assigned to this happening. BC Hydro's defense is an assertion that it has included a conservative forecast of relative prices and that assigning any probability would be arbitrary. We know from the evidence that DPP did not even look at this risk because they did not have to.

There is a significant amount of evidence that in fact this scenario could happen and result in the risk transfer becoming a cost to customers and therefore a rate impact on ratepayers. There is a distinct possibility over the next 25 years that we will see more efficient generation plants available, thus creating an evolving obsolescence of the DPP plant. (Transcript Volume 6, Page 1259, lines 20 to 26, Page 1260, lines 1 to 24) There is evidence on the record that the market currently has a glut of supply, which is depressing these margins. (Transcript Volume 6, Page 1260, lines 1 to 9) This has been true in the past and will likely be true again over the 25 years of the evaluation period. There is evidence that other sources of supply may well be available to BC Hydro over the next 25 years at lower costs than the cost of gas, which may prevail. These include coal, hog fuel, wind, small hydro and large hydro. These sources of supply may well prove very cost-effective relative to the DPP project. There is evidence of impending low to zero net emission technology for all fuel sources being considered that could obsolete the DPP plant sometime during the 25 years of this time frame. BC Hydro claims its 50:50 blend of a 100% recovery case and 25% recovery case to form its base case takes care of this and is a proxy for a myriad of these issues.

The evidence is clear that the energy margin being credited to DPP is coming largely from 2012 on to 2032, after the point at which there is a significant transitional shift in the forecast of electricity prices. There is an element of unreality to the evaluation to have this plant succeed largely on the basis of credits flowing from the discontinuities in BC Hydro's assumptions. The resource bias flows right out of those vague assumptions that the market will balance and the margin spread will open up and stay open. There is a definite risk it will not and BC Hydro has assigned that risk to customers.

#### **1.d) The required product defined by BC Hydro creates a bias favouring VIGP projects**

BC Hydro has defined the required product as a short-term 'on Island Capacity' required by 2007 and a long-term generation capability required for the next 25 to 35 years on the island. It has



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blended the requirement together by virtue of the evaluation methodology providing for fixed capacity charges and credits for generation among other things.

By creating this blend BC Hydro has effectively put a premium on long-term generation solutions that can be delivered by 2007. Of course this has resulted in the compressed time frame driving the call for tender process.

BC Hydro's rationale for this is that the Commission directed them to do this. The reality is that the commission in its decision only said the evidence suggested that this might be required. (VIGP Decision, Page 78, Section 9.1, second sentence) "The evidence in this hearing *suggests* that the appropriate next resource addition should be on-Island generation, provided the costs of the proponents projects can be confirmed near their expected values." (emphasis added)

The consequence of the blended solution approach is that the short-term shortfall if one occurs is not separated from the long-term acquisition. Unfortunately, this compromises getting the most cost-effective decision for both. For long-term acquisition and planning the restrictive nature of the approach has cut out more cost-effective supply options. For the short-term as well more cost-effective solutions are foregone. This is demonstrated by BC Hydro's own cost-effectiveness test once the artificial construction of the options is stripped out and they are put on comparable terms.

This timing requirement is driven by a logic put forward by BCTC to the effect that it is best to proceed with any project available and ready to proceed rather than risk not having other options on a timely basis. This reliability viewpoint without regard for cost-effectiveness is a concern to ratepayers because it does not represent the best interests of ratepayers and the best interests of the public. The bird in the hand, no matter how ugly, is better than the bird in the bush is an unfortunate perspective for ratepayers.

In fact it ends up representing a resource bias, because of the dynamics of BC Hydro's own prior activities and preferences. It leads to a natural gas fired plant at Duke Point. The pursuit of a combined solution instead of separating the short-term needs from the long-term acquisition requirements has lead to resource bias.

### **1.e) Failure to include Demand Management has led to resource bias**

The merits of the Norske proposal and more importantly the opportunities to work out solutions with other customers including Norske were by-passed by BC Hydro. They were not viewed as appropriate because there may have been an element of load shedding to them or they may not have been viewed as opportunities to develop permanent capacity reductions.

The Norske proposal as reviewed by BCTC was temporary but it was intended to be so, because of the perception that there was a temporary problem. The evidence that this was viable is contained in the fact that BC Hydro itself in constructing its cost-effectiveness test used the Norske proposal as the least expensive solution to bridge to more permanent solutions. The Norske proposal is used in both the Tier 2 and no-award cost-effectiveness options.

The merits of the Norske proposal and more importantly working with customers to reduce the peak requirement is further supported by the evidence of BCTC that a number of options with lesser probabilities of providing reliability can in combination provide a high probability of achieving the required reliability.

The evidence supports the view that BC Hydro has not pursued the Demand Side options in the last 18 months either directly or by reviving previously examined options. This is most disturbing information from the 'Power Smart' company from the company that wants to be a leader in demand side initiatives. It is equally remarkable that BC Hydro has been so reluctant to work out ways of holding discussions with its customers and instead preferred to hide behind process constraints. Why would such important and substantive options and players be kept at arms length or left out of the process when detailed in depth discussion would have been so helpful.

The net consequence of this approach has been a bias toward supply and because it has left BC Hydro pleading urgency it has reinforced the bias toward BC Hydro's preferred natural-gas fired dispatchable plant at Duke Point.

It is not blatant open choice resource bias, it is contributory incremental cumulative subtle resource bias, but resource bias never the less because it excludes another more valuable cost-effective option from contribution to the ratepayers' and public's best interests.

BC Hydro does deserve credit for including Norske in its cost-effectiveness test options of Tier 2 and No Award. Unfortunately, the structure of those options was biased too.

### **1.f) Magnitude of the decision premium in the cost-effectiveness test and decision**

BC Hydro's witness acknowledged that the cost-effectiveness of an alternative solution to the DPP project would have to have been more than \$100 million more effective than the DPP project. At that point BC Hydro said it would not necessarily decide to turn to the more cost effective solution, instead it would want to do more studies and investigation.

The implication of this criterion is that the ratepayers would be required to pay a premium of at least \$100 million in addition to the associated risks taken on by BC Hydro in preference to a more cost-effective solution because BC Hydro and BCTC suggest it is better to have a contracted, permitted, approved project now than to effectively bridge to a more optimal solution.

Hopefully the Commission will view the evidence with more respect for the public and ratepayer interest and an open mind to the impact of the sum total of all the contributing influences conspiring to create the enormous resource bias leading BC Hydro to approve and sign the DPP project EPA.

COMMISSIONER BOYCHUK: Mayor Lewis, I just -- I hope this won't sound gratuitous or self-serving, but your comment about being robbed of that opportunity. What I'd like to suggest to you is that the issues that you

and other parties have raised are alive and well before this Commission panel, and I would encourage you to make the effort, to continue to make the effort that you have shown in this proceeding. Sorry.

MR. LEWIS: A: I've heard everything you've said so far, so that's fine, yeah.

COMMISSIONER BOYCHUK: To continue to make that effort, and not feel that because of a decision this panel has taken today, and other decisions, that we are not going to listen to you.

MR. LEWIS: A: Thank you, I appreciate your comments.  
(Transcript Volume 14, Page 2979, lines 1 to 15)

The hearing presents the incredibly useful opportunity to deny an EPA which the evidence shows will have a present value higher than the No Award option by \$150 million to \$200 million plus the differential in risks BC Hydro has undertaken on the customers' behalf.

There is a sound basis of evidence for the Commission to deny this EPA and it should do so.

	<i>NPV (BCUC IR 2.46.6)</i>	<i>Energy Margin Adjustment</i>	<i>VIGP Asset Adjustment</i>	<i>Revised NPV Total</i>
(\$ in millions)				
Tier 1	366	0	47	413
Tier 2	420	(115)	0	305
Tier 3	381	(150)	0	231

The restrictive terms of the CFT, limiting the projects for bidding to the supply-side, missed the opportunity to determine the value or premium that DSM could provide to BC Hydro's ratepayers.

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## **2.a) The CFT Process was unduly restrictive and led to sub-optimal results.**

The restrictiveness of the CFT process is in evidence throughout the hearing and it has clearly led to sub-optimal result. This was a concern the Commission had before BC Hydro went into the process and unfortunately it has come to pass. (Transcript Volume 6, Page 1213, lines 2 to 14)

Unfortunately, BC Hydro missed the obvious that if you ask for options to be bid then you can evaluate then and take the ones that are in the ratepayers' best interest. To restrict the options by design is bound to result in a less attractive solutions. In the future BC Hydro needs to be open to bidder options. This will also allow BC Hydro to obtain useful information on the value of component issues. In all cases, where there is a restriction, options could have been sought instead.

The first area of restriction was the requirement for delivery of generation by 2007. This eliminated other potentially more attractive options because they were not as far advanced as Duke Point Power given that it was building on the VIGP work done by BC Hydro. (Transcript Volume 6, Page 1214, lines 9 to 24)

The attrition of non-gas fired, non-Duke Point projects was significant. BC Hydro would have us believe that this is natural. However, it is more likely that the timing constraint and other constraints were the determinative factors. (Transcript Volume 7, Page 1522, lines 9 to 19) It did not concern BC Hydro that this attrition occurred unfortunately they failed to see that the structure of their process was contributing to the wrong outcome.

The second area of restriction was the term of the EPA was set to 25 years with an option for BC Hydro to extend the term for another 10 years. The restriction to this term was a choice BC Hydro apparently made for the convenience of the analysis methodology. This means that term options, which might have produced more cost effective solutions, were potentially lost. (Transcript Volume 6, Page 1214, lines 24 to 26, Page 1215 lines 1 to 18)

The third area of restriction was required portfolio size. The evidence is clear that this disadvantaged a couple of bids with potentially more cost effective options and left BC Hydro with fewer choices. By not recognizing that BC Hydro has both bridging options, permanent demand side management options and other longer term supply options it forced the CFT to too narrow a set of criteria to get the most cost-effective solutions for ratepayers.

The fourth area of restriction was to require proponents to take on fuel supply & transportation risk in terms of both quantity and price. In one case BC Hydro took that risk on or more accurately offered to have its customers take on the risk but did not offer flow through of this risk to other bidders as an option. Had they done so they would have information on how much benefit was being derived by customers taking on the risk and they could have decided what value their contribution to managing the risks would be.

The fifth area of restriction was the reliability requirements of 97% availability. There may well have been lesser reliability options, which in combination with some other options might have made a perfectly satisfactory solution. By restricting the criteria BC Hydro foreclosed a range of

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potentially useful solutions and it failed to see that it may have had the ability to contribute to firming up these other options.

The sixth area of restriction was to require the GHG risk to be borne by the proponent. It is a certainty that potentially qualified bidders did not provide solutions because they saw this risk as too uncertain to take on. BC Hydro again could have offered that bidders could bid both with BC Hydro taking the risk and with the proponent taking the risk. This way BC Hydro could have obtained information regarding the value of this rather than assuming that the best value is obtained by shedding the risk.

The seventh area of restriction is the liquidated damages terms, which provide for cumulative multiple instances. This represents one example of the onerous terms that have made bidders and others shy away from this EPA and from bidding. Again BC Hydro could have offered options, which would have helped it determine the value of becoming more onerous than industry standards.

The eighth area of restriction was the methodologies adopted by BC Hydro. Clearly BC Hydro's rigid evaluation methodology approach got it into trouble in terms of not even getting the most cost effective solution from its own point of view. Unfortunately this methodology caused BC Hydro to lock in simplification assumptions, which constrained its ability to get to more cost-effective solutions. The evidence is that the process in the methodology constrained BC Hydro from doing sensible things such as evaluating bids that it had in hand. What BC Hydro gained in terms of providing a clear and transparent view of its evaluation by bidders it lost because of the inflexibility it introduced. BC Hydro was then only left with its privative clause to over turn the process, which it was unfortunately reluctant to use, thus further confining itself.

When BC Hydro came to evaluating the outcomes critical to solving the problems on the Island it chose not to assign probabilities to the potential outcomes and to back up those assessments with credible information. In stead BC Hydro preferred to run a scenario and claim that this would represent a stress test without any clear criteria as to how it would use that information to make a decision. Often in its risk management work BC Hydro does assign probabilities to outcomes and uses this information to determine courses of action. It does so for events as uncertain as earthquakes. Unfortunately BC Hydro felt such analysis in this case to be arbitrary. (Transcript Volume 9, Page 2015, lines 9 to 26, Page 2016, lines 1 to 25) (Transcript Volume 9, Page 2017, lines 8 to 24)The customers and ratepayers would have preferred that for such a significant expenditure and rate impact that BC Hydro would have adopted the more rigorous analysis it is capable of when considering its decisions. This would have been relevant for the HVDC de-rating, the timing of installation of the 230 KV cables , the effectiveness of bridging options and many other uncertainties BC Hydro had to factor into its decision. It would help customers understand these issues and lead to more rational decision.

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## **2.b) BCH Volume 8 admissions that the EPA is not most cost effective and admissions of risks**

### **Admission, from BCH, EPA not most cost effective for customers**

Upon questioning from the Chairman BC Hydro's witnesses and Ms. Hemmingsen in particular admit that the portfolio they have not signed up for is better value to the customer than the one for which they have signed an EPA.

MR. SOULSBY: A: Are you asking me if the values in the cells related to the third portfolio are higher or lower than the first portfolio?

THE CHAIRMAN: Well, no, I know the answer to that question. I'm asking you if the value of that portfolio is better value to customers than the first portfolio.

MS. HEMMINGSEN: A: I think that would be an appropriate conclusion.

THE CHAIRMAN: Thank you.

MS. HEMMINGSEN: A: Because you get 28 megawatts of capacity for a low price.

(Transcript Volume 8, Page 1718, Lines 14-25)

Ms. Hemmingsen's comments are particularly telling because they indicate clearly that there is a test of value to the customer, which BC Hydro has not used. She suggests that the reason you would get better value is because you get capacity for a low price. This is particularly relevant because the problem identified was a capacity shortfall from forecast and the process was a call for dependable capacity. Unfortunately the process was flawed in many respects not the least of which was that a critical criteria such as the cost of capacity was not sufficiently evident to elicit the best value for the customer. This one instance is not the only one where less expensive capacity has been forgone because of the flaws in the process.

### **Admission of desire to have dual fuel for control of risk**

In the *In camera* session Ms Hemmingsen identifies new information with respect to the EPA and argues for the Commission to recommend resolutions to BC Hydro's problems in regard to this new information. She advises that in addition to the not having the duct firing she would also like a dual fuel capability.

MS. HEMMINGSEN: A: Per the rules, because we explored this. This was a significant issue for us. Per the rules of the CFT we had to select their non-duct firing bid. We could conceivably enter into an agreement with them to revise the terms of their EPA. I would also like to get the dual fuel capability option in there as well to mitigate the Terasen impacts. So perhaps that could be a recommendation that stems from the decision that the contract is supportive but it's recommended that B.C. Hydro secure these two additional features.

(Transcript Volume 8, *In camera*, Page 1742, lines 7-17)

Here Ms Hemmingsen effectively admits that the Terasen presumably gas transportation costs may be better handled if BC Hydro had a dual fuel capability option as part of the EPA which BC Hydro does not. This underscores a cost risk which requires management to get the best customer

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value but for which BC Hydro does not have adequate mitigation by its own admission. Mr. Sanderson then lays out BC Hydro's position (Transcript Volume 8, *In Camera*, Page 1743, lines 10 to 26 and Page 1744 lines 1 to 2) that the EPA is the only binding commitment and that within the CFT process there is no ability to improve the result. It is a rigid process. He then suggested that the parties, presumably Duke Point Power and BC Hydro could do it by mutual agreement. It is relevant to note that while BC Hydro knew about this and it had troubled them and while they had held discussions with Duke Point Power they did not advise the Commission or the hearing of a mutual agreement. We can only conclude that the EPA is flawed and the CFT is flawed when it comes to getting the best value for the customers.

#### **Admission from DPP of concern over \$50 million showing concern over contingencies**

Ms Hemmingsen goes on to point out that Duke, presumably Duke Point Power or Pristine Power, is worried about putting up and losing \$50 million under the EPA.

MS. HEMMINGSEN: A: One other dynamic that exists in the contract that is troubling Duke that has a bearing, because I've been thinking about this, is there is no relief for them for transferring the \$50 million to B.C. Hydro in the event of an appeal, and that's troubling them right now,  
(Transcript Volume 8, *In Camera*, Page 1744, lines 3 to 8)

This only adds further to the concern that the EPA and CFT are flawed this time potentially from the winning bidder's point of view. One can only imagine the range of concerns the non-winning bidders must have had with other flaws.

There are many issues arising out of these, *In camera*, admissions which unfortunately could not be the focus of cross-examination by intervenors.

Admission of desire to have duct firing for optimal solution

#### **BC Hydro counsel believes this deals with cost-effectiveness Panel 4 issues**

Mr. Sanderson identifies these issues as a central issue and as having encompassed the concerns of the broader questions of cost-effectiveness as they will be dealt with on Panel 4. Unfortunately, the issues were not fully live until after the BC Hydro panels completed and there is only argument left to pursue, instead of having the opportunity to find out in what way this is not unique and in what way it may be a broader problem.

MR. SANDERSON: Mr. Chairman, there is an element of cost-effectiveness here, so maybe we can deal with this again at the end of Panel 4. As well, I think this debate should be on the record. That is, I think we should find a way to have this discussion, as much as we can, off the confidential record, and I don't have a suggestion right here as to how we can do that, but I think we need to find a way, if we're going to have this debate, to make it a public debate, because I think it's -- you know, it's a pretty central issue. And it's not really unique to this particular outcome.  
(Transcript Volume 8, *In camera*, Page 1752, lines 16 to 18)



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So we are left to argue that there is a taint to the results of this process that it does not result in the most cost effective outcome for ratepayers/customers. The evidence on the record already points to several other areas of bias and taint with regard to the outcome being in the best interests of the ratepayers and the public. In fact it has become the central issue that the EPA does not represent the most cost effective outcome for ratepayers.

**BC Hydro as represented by Ms Hemmingsen does not want to lose the CFT process**

Unfortunately Ms Hemmingsen and consequently BC Hydro end up expressing as a primary interest preserving the process. BC Hydro was troubled that it would not have the most cost effective outcome (even in their own view) but preferred to continue seeking approval for a sub-optimal EPA. From the customers perspective this is unfortunate and speaks volumes to the perspective that has driven this to become a triumph of process over substance. BC Hydro is so concerned about process that it has failed to take the objective of seeking value for the customer/ratepayer sufficiently seriously to properly evaluate its options and provide the best solution.

MS. HEMMINGSEN: A: And I also want to have that opportunity but there's a couple of considerations that we can talk about right now. I mean, I would be concerned about overturning the competitive process based on the rules. I agree that we all have a concern that it didn't produce the cost effective -- the most cost effective outcome in terms of what was bid in. That was a bit of a trade-off in the simplification of the model.

The opportunity to revise a certain term of the CFT does exist and it could achieve that objective because one of the Commission's directions could possibly be that the section that where the bidder keeps the capacity associated with duct firing should be made -- that provision should be changed and that should be made available to B.C. Hydro. So we have an option on that capacity and that would achieve the desired outcome.

(Transcript Volume 8, *In camera*, Pages 1751, lines 12 to 26, and 1752, lines 1 to 3)

MS. HEMMINGSEN: A: I think that's an important consideration. A related consideration in terms of if the action would be to overturn the contract, that could possibly be detrimental to future calls, because proponents could then come in and kind of target specific terms and conditions that benefited them, you know, and put that in front of the Commission, which could add to the kind of regulatory burden that we would all face. So I think that's an important consideration, that it doesn't sort of set up for a

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lobbying kind of effort in front of the Commission, to change terms to the benefit of proponents. Not to ratepayers.

(Transcript Volume 8, *In camera*, Page 1753, lines 19 to 26, Page 1754 lines 1 to 5)

Unfortunately Ms Hemmingsen does not see the burden this perspective places on the whole acquisition process and the EPA, as well as the regulatory process to be pushing forward with materially flawed processes.

**Chair's view of a regulatory process that might not result in most cost effective for ratepayers and public interest**

THE CHAIRMAN: But then you'd be asking the panel to approve a sub-optimal portfolio because of regulatory parameters that were established in the earlier decision. And that seems somewhat abhorrent to me. I hate to think that regulatory decisions lead to uneconomic outcomes. And what Mr. Sanderson is suggesting is an approval of the sub-optimal project in the hopes that the parties reach an accommodation that leads to the optimal outcome.

(Transcript Volume 8, *In Camera*, Page 1744, lines 15 to 23)

It is abhorrent to the customers and to the ratepayer groups that BC Hydro would continue to seek approval of this EPA. The Commercial Energy Consumers believe the chairman has identified the right test. If the EPA and the regulatory process result in uneconomic outcomes then the Commission becomes dragged into the quagmire and becomes a complicit part of foisting less cost effective outcomes on the customers and ratepayers. To adopt Ms Hemmingsen's perspective and prefer preservation of this process could only leave the customers, suppliers and public interest the poorer.

Unfortunately, when parties come to examine a flaw in the process they may be drawn into looking for a fix for the flaw and inadvertently accepting the assumptions embedded in the simplified models they are correcting. It is absolutely critical that the Commission look to all of the other problems with the EPA proposed and the CFT process. Collectively they make a very strong case for denying this EPA. As troublesome to process as that may seem it is in fact the *raison d'être* for the Commission and for the Section 71 review process. When an EPA is proposed with the flaws to substance that are the repeated discoveries of this hearing it is best to deny approval and preferable to let the substance be found in what unfolds following.

### 3.a) Load Forecast

BC Hydro's 2003 load forecast used in CFT evaluation does not incorporate impacts from rate changes and demand side activities, such as:

- Stepped rate design,
- Time of Use rate design,
- Rate impact of CFT results (DPP or alternatives),
- Discontinuing Eplus,
- Short-term demand Response programs,
- Customer alternative resources such as geoexchange,
- Fuel switching,
- Resource Smart projects, and
- Customer Based Generation.

It must be recognized that the load forecast is dynamic and needs to reflect what customers are likely to do. Of the list above, three of those activities can be planned, installed, commissioned and operated to reduce customers' load requirements without BC Hydro even knowing!

Quality information about customers' electricity use can greatly reduce demand risk to utilities. So while BC Hydro may have interpreted the Commission's VIGP decision literally with regard to *acquiring* new DSM savings as bid projects under the CFT, there was certainly nothing to direct BC Hydro to ignore the impact of DSM on their load forecast, portfolio evaluation, or cost-effectiveness of the competing bids in the CFT.

### 3.b) Demand Side Management

The CFT design and process utterly failed to consider or address demand side management measures or opportunities in any fashion. Indeed the project manager, even though she knew the Island had been studied since the mid-90's did not even avail herself of what had been done or could be done quickly on the demand side. For a utility that wants its ratepayers to believe that it is serious about Power Smart and that it practices what it professes in that DSM is the least cost new resource, there are no excuses.

MR. BOIS: Q: Could you tell me what extensive studies you've done?

MS. HEMMINGSEN: A: Well, over the past ten years we've looked at our supply/demand requirements and the capacity balance on Vancouver Island, and proceeded on the basis of N minus 1 reliability criteria, identified a range of new generation opportunities that would meet that N minus 1 planning criteria as well as transmission opportunities, been through various regulatory hearings and processes starting in 1994.

MR. BOIS: Q: So is it fair to say that for the past ten years B.C. Hydro has been focused on basically two options, generation or transmission?

MS. HEMMINGSEN: A: I haven't been involved in this file for ten years, so I can't speak to what we may have considered earlier.

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(Transcript Volume 7, Page 1356, lines 20 to 26, Page 1357 lines 1 to 10)

DSM savings displace electricity supply resources or purchases and can defer capital spending requirements for the electric system. Savings acquisition can be accelerated or slowed to match customer load growth requirements. As customers acquire savings measures, including efficient energy use practices, their load profiles are smoothed. Increased implementation of DSM measures and DSM program delivery throughout a service area reduces the average electricity needs of new customers and of newly constructed facilities and housing and customers are able to respond quickly to signals and incentives provided by the utility.

DSM faces the same forecast risk that supply side projects face. If the load growth fails to materialize, then there is less sales over which to spread costs. However, demand-side investments are smaller and more diverse, helping to mitigate any risk around installed savings technologies, with costs shared directly by customers. The demand risk for DSM is reduced by the portfolio approach capturing different technologies and measures for each customer segment and providing flexibility in the timing, size, and location of resource savings.

DSM offers many savings opportunities that, with monitoring and evaluation procedures in place, can be matched to the utility's system requirements and schedule. And DSM program delivery can respond almost immediately to match or stay ahead of market change, changes in customer use rate, improved technology performances, and improved efficiency regulation. In a matter of weeks, energy savings can occur, completely avoiding the years of delay experienced with supply side projects.

DSM can also be dispatched in smaller or larger increments than planned, better matching actual changes in load growth. Better information about customer energy use and DSM programs help to reduce utility resource planning uncertainty and enable the utility to better match supply contract size and scheduling.

Forecasting demand represents risk for both the demand side and supply side investments. DSM is more flexible in shaping and matching incremental demand growth. The risk and cost are less should the growth not appear as forecast and, depending on the installed measures, the savings are in place to be realized when load growth returns.

The demand risk for the CFT is that BC Hydro Distribution, by not considering demand side measures is not able to reliably quantify or predict what their customers will do in response to higher electricity prices, higher gas prices, colder weather, gas-fired plants, or failing transmission lines. The CFT design and evaluation, by ignoring DSM, have created an unnecessary risk for ratepayers

## **Conclusion**

The Chair stated “But then you’d be asking the Panel to approve a sub-optimal portfolio of regulatory parameters that were established in the earlier decision. And that seems somewhat abhorrent to me. I hate to think that regulatory decisions lead to uneconomic outcomes.” (T. 1744, lines 15 to 20)

The CEC agrees with the Chair and believes that the Panel must find this EPA filed by BC Hydro not in the public interest and approval must be denied. The argument presented above demonstrates that when bias is removed from the evaluation the No Award option is more than \$150 million more cost-effective for ratepayers than the Tier 1 option.

The CEC submits that the Panel has only one choice and that is to deny the EPA.

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### Reply to BC Hydro Final Argument

#20 If the next resource addition should be on the Island as a matter of fact, then why does BC Hydro and the BCUC consider the No Award option viable. The CEC submits that it does because the Tier 1 DPP project might not be the best next resource addition and it is not.

#24 If Mr. Mansour was to be believed then the No Award would not be an option. From the customers' perspective this would be ridiculous and expensive.

#28 Cash will be cold comfort to ratepayers when DPP fails to perform. The requirement for a new substantial long-term resource to be operational within two years represents a bias against non-VIGP-type projects.

#30 Reliable capacity is not a "product". Reliable capacity is provided by an interconnected system of generation plant, transmission, and distribution equipment. BC Hydro had a fear that they would pay a gas premium to bidders but they did not take the opportunity to test if there was a premium or how much the premium would be by asking proponents for their gas costs as well.

#31 This argument sets precedent that will permanently cause BC Hydro to select gas-fired projects to improve its portfolio and discount the value of renewable supply against the fixed costs of gas plants. Optimization of BC Hydro's gas portfolio must mean reducing the average cost of gas for gas-fired generation, contracted to BC Hydro.

#49 TGVIs ratepayers and BC Hydro's ratepayers are one and the same. BC Hydro cannot "protect its ratepayers' interests" through this EPA. It is simply relying on its large customer base over which to spread the costs. So is TGVI by the way, relying on BC Hydro's large customer base over which to spread its costs.

#58 The VIGP decision states that the evidence "suggests" on Island generation (VIGP Decision, page 78, Section 9.1, second sentence). It also states that demand response is an example of a bridging measure that could fill the gap in the short term.

#62 The CFT design did not require all projects to be of the same duration in order to complete bid valuations and bid comparisons. Fixing the term at 25 years biased the process in favour of a VIGP like plant. This parameter is a strong signal to proponents of the type of project that will be successful in the process. It is not talking about the "product" that BC Hydro is looking for because a 10 year project could have met BC Hydro's "reliable capacity" product need. A term of 25 years was selected in order to make VIGP projects viable under the CFT.

#63 As a large electric utility, it seems strange that BC Hydro, responsible for meeting customer load and with "the initial responsibility to plan for its future resource additions" deferred all resource attributes for the CFT to the BCUC's VIGP Decision. The BCUC also said that BC Hydro could abandon the CFT if it needed to. (VIGP Decision Page 79, third paragraph) "It will be BC Hydro's choice whether to proceed with the CFT recognizing that BC Hydro must develop sufficient information to identify the most cost-effective resource addition for Vancouver Island."

The VIGP Decision has been used as an excuse to design the CFT to favour a VIGP-like project.

#66 Item (b) The CEC agrees with Dr Jaccard's thesis regarding placing any carbon tax on the gas producer. And the CEC believes that the tax charge will follow the gas. It will be the gas purchaser who will be paying the carbon tax. And yes, the EPA protects DPP from that outcome, but it can't save the ratepayer.

#75 DPP is not "giving" \$50 million to BC Hydro. What is really happening is that ratepayers are not only exposed, but they are going to pay DPP that \$50 million plus interest, plus rate of return over the next 25 years. BC Hydro is in fact attempting to mortgage the VIGP assets and we don't even get to own them after we pay them off. The exposure of customers is not reduced by the payment, it is locked in by the credit to DPP. Only the Commission can determine the allocation of the deferred costs.

#76 As stated earlier, VIGP Decision merely "suggests" on Island generation.

#99 From Ms. Van Ruyven's testimony it can be ascertained that the additional exposure to gas supply risk for DPP will allow BC Hydro to reduce its average cost of gas and bring down the charges for the Island Cogen Plant as more energy will be produced. It is the large hydro generating stations that reduce BC Hydro's exposure to gas supply risk.

#106 The CEC agrees that rates are going to go up and we agree that our members are going to pay. However for exactly those reasons, we do not agree that any resource will do. We have hindsight now. Demand side management can reduce load and system peak. It delivers savings quickly, customers that participate share the costs and benefit immediately. DSM provides utilities flexibility and reliability through diversity and load management. Our hindsight also sees small alternative energy sources at customer cites and integrated into a resource mix to increase their value to the utility and ratepayers. We do not know where BC Hydro is looking in order to plan to use the hydro system to reduce the average cost of fossil fuels. It is extremely disappointing and belies much of what the corporation says publicly and in consultation with customers.