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Submissions will be considered if they are relevant to the terms of reference issued by the provincial government. In summary, the questions before the BCUC are:

1. whether the project is on time and within budget; 2.the cost to ratepayers of suspending the project; 3.the cost to ratepayers of terminating the project; 4.what portfolio of generating projects and demand-side management initiatives could provide similar benefits; and 5.what are expected peak capacity demand and energy demand.

I am making the following comments because I believe the Province and our electricity Crown Corporation need some help to get back on track.

I believe that my comments are as relevant to those 5 points and the terms of reference for the Inquiry as those presented to the Commission by BC Hydro. The panel and staff at the BCUC still have a ways to go, but compared to what the Peace Valley Environmental Association has gone through over the last fourty odd years, with any luck, you will get off easy. I wish you good luck, Randal Hadland

1. Whether the project is on time and within budget;

On page 1 of BC Hydros submission to the Panel the Crown corporation says,

"Site C has been the subject of a number of reviews and determinations by Government, regulators and the courts. The current Inquiry is an opportunity to:

- assess BC Hydro's progress against the Project budget and schedule;
- understand the implications of suspending, or terminating and remediating, the Project part-way through construction, including the impact on ratepayers of recovering Project-related costs and of securing alternative supply resources; and
- consider, in light of current circumstances, how the Project benefits compare to other viable resource alternatives. The key benefits include

(i) a long-term supply of low cost energy, (ii) flexible capacity that can be relied on to be available at the times when consumption is greatest and that can facilitate the integration of intermittent renewable resources like wind and solar, and (iii) low greenhouse gas emissions.

It doesn't do any good to say that comparably Site C has a lower unit energy cost than alternatives, even if that were true, if it is going to leave us more in debt to the banks at the end of the mortgage than when we started, or if/when we have to start paying interest on the interest.

It isn't true anyway, as evidenced by the availability of our conservation resource. In Hydros submission, the Crown Corporation talks about the Legacy of low cost from our built system. Aside from the habit we have fallen into concerning externalization of the costs of our heritage assets, as

seen by Hydros continued need to do the same to Site C in order to try to justify the dam, we also need to consider that this one project, that would cost much more than the entire rest of the system combined, does not fit into anything like the same category.

and in 5.1.1.2 BC Hydro says, " past investments in large hydro are a key reason why BC Hydro's rates are lower than most other utilities in North America. Site C will provide a similar legacy. "

ANOTHER of the key reasons is that Hydro has not included the 'externality costs' of their large hydro projects. While we might have lower rates than many that does not mean that we aren't paying for the lost farmland, the lost forest and fisheries, that we aren't paying in the social impact that our Heritage assets have inflicted on first nations inhabitants of those valleys, and also the settlers who tried to make their lives there. Lost jobs, lost resources, lost history, and the list goes on and on.

As I mentioned in one of my five minutes, there is not even an estimate of actual value to BC, no calculation of benefit, nothing to compare the alternatives to. Hydro is putting forward the notion of benefits from the electricity, from jobs, from local benefit agreements, of building a dam, but it gives no dollar value to those benefits, it does not compare those benefits to any of the other alternatives that the Commission is looking at, and they all have those same sets of benefits.

When we compare one option to another we have to know values in comparable terms. BC Hydro has not done this and so their attempt to get approval fails, again.

Since the Commission is considering the costs of terminating Site C it is necessary to compare those costs to the benefits that would arise if

Site C was built if it was built within budget. There is not even an estimate of actual value to BC, no calculation of benefit, nothing to compare the costs with, For example, if Hydros average rate of return is 8 cents per kwh, an analogous figure does not appear in Hydros documentation for this Inquiry, and if it sells 5 Billion 1 hundred million kwhs at that price then the benefit to the Province would be 408 million dollars. On the other hand, if interest rates for the possible borrowing to cover the cost of construction for site C, in this example 10 Billion dollars, at the time when Hydro takes on that mortgage, say 2025, happens to be 5% simple interest, then the cost of borrowing is likely to be 500 million. I tried farming with that kind of economics.

It doesn't work worth a dam.

BCH submission, page 10, "As with past investments in large hydro generation, Site C will give rise to the same declining annual costs over its life and yield progressively greater benefits over time."

BC Hydro climbs all over itself in an attempt to, using an appropriate analogy, have its cake and eat it too. The farmland in the valley, growing apples and grapes and melons, and considering the potential impact on farmland further south, from global warming, does not get that kind of recognition. Instead Hydro chose to discount the value of billions of dollars worth of food production over that same length of time to basically nothing. We need a level playing field in determining the value of our alternative land use plans.

This is a factor that has got to be an implication of finishing this white elephant. If at the time Hydro finishes the dam the BCUC is asked to determine how and when the rates are going to recover those costs, and the average costs have to go up, that too has to be an implication for completing the dam. I understand that you are not required to determine in advance how we should pay, but the implication that we can't afford it cannot be ignored. I am not asking that the panel involve itself now in a detailed examination of rates, but you need to make some first order estimate in order for the new government to understand that implication.

BC Hydros budget for Site C was not approved, in a public forum. That is one of the reasons we are here. The panel needs to make an estimate of whether having Hydro build Site C fits within a sustainable Provincial budget, to determine whether or not Hydro can stay within the budget. If we can't afford to pay the dam, and interest, off it doesn't come in under budget.

2. The cost to ratepayers of suspending the project;

page 35 of the Panels initial report, " Hydro reports, "2) Costs related to rendering the site safe and environmentally sound. This would be less intensive than for termination as infrastructure (such as accommodation) would be left in place and environmental work would be of a temporary nature."

In either case, termination or suspension, the accommodations could stay. Hydro could offer the camp with maintenance costs, to the Regional District as compensation for the loss of income the District would have received if the dam had been approved and built.

3. The cost to ratepayers of terminating the project;

On page 72 of BC Hydros submission, section 6.2.1 Accounting Rules Would Require an Immediate \$3.0 Billion Write-Off Under the accounting rules that BC Hydro is required to follow,⁴⁴ termination would result in BC Hydro having to write-off or expense approximately \$3.0 billion immediately, as shown in Table 14 below.

AN ALTERNATIVE that has been mentioned is that the BC Government, even the new one, in the form of the people of BC, is responsible for the pressure exerted on BC Hydro to get Site C past the point of no return, and therefore the BC Government should take on this debt. With a warning that we the people should not let government get us in this mess again.

On page 78 of BCHs submission "However, some of the environmental effects would be avoided if the Project were terminated (e.g., effects on certain species of fish as a result of transforming a portion of the river to a reservoir). There are links to the Environmental Impact Statement and other relevant materials from that process in Appendix E.

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IF HYDRO can talk about these implications so can we. AND TO THE EXTENT THAT THE PANEL ACCEPTS THE ISSUES THAT HYDRO WANTS TO MENTION, JUST IN PASSING, WE CAN TALK

TO THE ISSUES THAT HYDRO HAS NOT ADDRESSED.

3/4'S of a Billion dollars worth of valley farm produce value to society every year into perpetuity, just in passing.

I ask the panel to reject, as I do, the notion, that the half billion dollars that Hydro spent educating themselves, respective panels like this one, the public and governments over the years, about our Peace River, the relative need for additional power, the geology and economy of the valley, the legal niceties, the engineering, the social, environmental, and financial impacts and costs of the destruction they would cause if we were to let them proceed with this turkey, is a sunk cost. It is knowledge, and it is knowledge that society will be able to learn and benefit from when Site C is cancelled. If there is no construction then it cannot be a cost of construction, because in itself it is not construction but knowledge that is not lost.

4. What portfolio of generating projects and demand-side management initiatives could provide similar benefits;

This is the summary report of the 2007 BC Hydro Conservation Potential Review report.

esscommittee.org/sites/all/files/publications/2007%20Marbek%20Report.pdf

I ask the panel to go through this summary report, including the recommendations at the end of it and to recognize that the 4 Site Cs, economically available at less than the cost per kwh than Site C, and acquirable in less time than it takes Site C is an asset that has to be re-instated in Hydros planning as a production unit. I ask the panel to call Hydro and get a full copy of the report itself, and raise any questions publicly that might come up about the validity of the study.

From where I sit our previous government made a serious error in shutting this encouraging and cost effective option down.

The assumptions in this study are revealing in themselves, only commercially viable technologies assumed available before 2011 were presumed adopted. The assumption of a reference price based on its request for proposals rather than Site C. The assumption that the economic factors involved, in the environmental and social impacts of a project like Site C, would not come into play in the future determination of conservation potential. These assumptions reveal that there is a considerable as yet unacknowledged additional large chunk of conservation that could be measured and developed.

These assumptions are just part of Hydros lack of in depth analysis that reverberate through Hydros submission starting and continuing with the repeated assertion that DSM has already been calculated into the

forecast of future energy use. Such as on page one, line 16, "..

Terminating the Site C Project, remediating the site and acquiring alternative resources would cost ratepayers \$7.3 billion on a present value basis; in this case the assumption that they are fulfilling their mandate to provide the least cost alternative by ignoring their own studies.

It is not enough to make an arbitrary determination that some percentage of Hydros demand needs to be met through conservation and then call that arbitrary figure aggressive. Conservation is a resource like any other resource and needs to be considered in the same manner. It is not enough that BC Hydro should abide by section 2(b) of the Clean Energy Act. I ask the Commission to point out to the Government of BC that Hydro can and should derive all future demand from conservation until that economic resource is used completely. One exemption that would be appropriate would be to allow customer developed power projects that the customer is paying for and feeding into the grid at a rate of return lower than Site C.

However, in the face of this study we learn From the Deloitte report A-9, page 57,58, 59 of 139. Residential programs decrease in spending of \$17.7 million (-33%)

Commercial programs decrease in spending of \$33.1 million (-25%)

Supporting initiatives decrease in spending of \$18.8 million (-31%) that

Hydros spending is dropping over the last couple of years (not including capacity-focused pilot spending and the Thermo-Mechanical Pulp program, which were not included in the 2013 IRP). Including the Thermo-Mechanical Pulp program,

expenditures have decreased by 19% (see Table 3). So that in

opposition to residential and commercial conservation spending, it is evident that industrial spending, though not explicitly stated, has gone up. That is terrific, for industrial customers, but also for other consumers to the extent that industrial users are not driving the demand for Site C. It is time though for a little equity as commercial and residential consumers face the threat of spiralling electricity costs.

And We see on those same pages that Hydros conservation spending is low in relation to other utilities around N. America. Ranging from 1/3rd of average conservation residential spending, to 3/4s of industrial

conservation/efficiency spending. This might be explained by the

following from 2017-2019 rate revenue requirements application BC hydro chapter 10 page 24, "Given

the load forecast variability and uncertainty in the target beyond 2020, the flexibility of the Demand-Side Management Plan becomes an important attribute (Table 10-5, Row 5), and the lower level of flexibility for the No Programs alternative risks not being able to ramp up in time to meet any emerging load/resource deficit. "

FLEXIBILITY IS IMPORTANT. Instilling in BC Hydro a lack of flexibility was also important to the former governments efforts at justification for its push to get site C past the point of no return. It depends on which outcome we want. From my perspective we want the most flexible and the least cost alternative, the least social cost, the least environmental cost, and the least financial cost. and BC Hydros proposed Site C dam does not fit any of those bills.

Hydro says in section 5.1.2 "We Consider Cost-Effectiveness in Both the Short and Long-Term, Different resources have different costs and affect rates differently.

Demand-side management initiatives generally reduce demand and utility costs and can provide longer-term benefits; however, in the current environment they also place upward pressure on rates in the short-term."

MAYBE THEY do, but in the short term Hydro buries the costs of Site C so that customers in the long term future have to pay them. At least the expenses incurred during a conservation initiative are visible and customers will understand that there is a cause and effect. With Site C costs being stuffed away into deferral accounts, and not becoming recognizable until we are already paying interest on the full amount, hydro consumers are faced with sudden reality, in higher rates than conservation could ever rack up. We need to send messages to consumer groups that their use has an impact, and we need to stop Site C before that impact becomes unmanageable.

And from the 2007 Conservation Potential Review report "8.4 ADDITIONAL STUDY FINDINGS The study also evaluated the Housing Scenario using the MetroQuest simulation model. The results are presented in Appendix E of the main Lifestyles report. The study found that shifts towards sustainable communities and smart growth lead to electricity savings as well as a wide variety of other community and sustainability benefits including

: Reduced urban sprawl, leading to lower infrastructure costs and a reduction in costs to the tax payer
:More efficient transportation systems in general, leading to reduced traffic congestion, greenhouse gas emissions and local air pollution :Conservation of open space and agricultural land :Reduced ecological footprint Finally, this study concludes with an evaluation of the most appropriate roles for BC Hydro in influencing lifestyle changes to conserve electricity. The study concludes that while the conservation potential from lifestyle change is significant, many of the decision-making and influencing factors in the most promising areas will require BC Hydro to adopt a different role, recognizing that partnerships or synergies with other organizations may be the most effective strategy. "

BC Hydro needs to be re-evaluated in light of the options that this report presents to the Province. The fact that the report is ten years old is a serious shortfall, but the fact that it supports and goes beyond earlier Conservation Potential Reviews shows that consistently conservation is a large resource and while a new CPR is recommended, there is no reason why Hydro cannot begin to encourage the conservation potential of 15,000 Gwhs available through its cheapest portion, the Lifestyle/Behaviour

category.

In section 2.1.2 of BCHs submission, Hydro made the claim that Dependable Supply that Is Available on Demand is Critical to System Reliability. Let me suggest that there are differing views on what is critical, and the value of that criticality. Hydro has chosen wind power as its potential alternative to Site C, and often people think of a windmill when they think of wind power. It appears that Hydro falls into that same mistake. While it is true that wind power is not as concentrated as Hydro power, so that a single windmill or even a single wind farm is not going to provide dependable supply in a nameplate to nameplate ratio, there is still significant opportunity for dependability improvements in an assortment of wind projects around the Province in windy areas.

There is even more opportunity to develop dispatchability when solar, geothermal, tidal, small hydro, etc are placed in advantageous areas.

As well there are other ways of dealing with demand that hydro has recognized many times over the years but seems to need reminding of as often as they get a chance to pursue Site C. Peak load reduction, a voluntary ability on the part of consumers to help the environmental, social and financial well being of the Province, is a good one that Hydro has done little to tie in to. This is a result of the limiting factors imposed on Hydro concerning its options.

In the same section Hydro says, "The flexibility associated with access to dispatchable resources like storage hydro is of fundamental importance to operating any electricity system and is of significant value to BC Hydro's customers." Hydro says later that this amounts to about a 30% premium for Site C. This may be true, although I did not see where those calculations were made. But even if it is true, if we don't need more power, or if we can get four Site Cs for less money per kwh the excess capacity becomes redundant in relation to the large storage capacity that we already have, and it would be very expensive for ratepayers.

On page 14/15 of BCHs submission Hydro says "As part of the analysis conducted for the Site C Environmental Impact Statement, BC Hydro forecast that Site C would provide the capability to integrate an additional 900 MW of wind resources when complete." If that is the case then a simple ratio of existing Hydro plant to integratable wind resources yields about 10,000 mw of wind resources, or about 9 Site C's.

That should be enough for a while.

In section 5.1.1 "System Reliability Is a Fundamental Consideration There are a number of considerations, some of which are discussed below, that go into planning a reliable electric system."

A synonym for reliable is well founded, which is defined as based on good evidence or reasons. We do not have either from BC Hydro in sufficient quantity to let Site C proceed. In my opinion, Hydro does not understand the concept of reliability given the inadequacy of its submission. For example, in its response to the Commissions question, BC Hydro reference number 2.40.0, concerning the refurbishment of alternatives, instead of supplying good evidence or reasons BC Hydro fell back on giving the Commission more assumptions. In which Hydro maximizes the cost of refurbishment by assuming that rebuilding existing generators is not feasible, and that the next generation of windmills will not fit the towers already in place. While some modifications might be necessary as with new generators in dams, old generators can be rebuilt, or new ones can be built to meet existing mounts.

On page 63 of BCHs submission, "Some resources, such as DSM or Revelstoke 6, are implemented with or without Site C. Terminating or suspending Site C only affects when these resources are implemented. As a result, DSM and Revelstoke 6 are not "alternatives" to Site C."

In this kind of situation you have to ask why DSM is not an alternative.

In my opinion it is not considered as an alternative to Site C because Hydro was told to reduce future demand by 60 % with conservation. It should be a relatively simple matter for the new government to tell Hydro to meet all future demand with conservation and to accomplish our need for exploration into other alternatives when and as they are responsibly determined to be advantageous.

Finally with respect to the portfolio of generating projects and demand side management options, the new government has the ability, and should use it, of including in Hydros future options, those that were removed by the previous government. As you have heard many times in your deliberations Burrard Thermal, Columbia River benefits, geothermal etc are resources that we have already. To go out and spend 10 or more Billion dollars to meet the restrictions of low water year calculations, complete self sufficiency while expounding exports, and cutting back on conservation programs, while limiting existing resources is indicative of another agenda. I submit that the people of BC have had enough of that kind of hidden agenda.

5. What are expected peak capacity demand and energy demand.

The BCUC Site C Panel was to examine the issue of demand in light of the objectives of the Clean Energy Act.

page 50 of Hydros submission, " The Commission's order requires BC Hydro to report on "other factors that could reasonably be expected to influence demand from the expected case towards the high load or low load case." In the following discussion, we have (a) Identified key drivers that influence demand for each of the major customer sectors;

and

(b)

Assessed, where possible, the extent of any trends in these drivers."

IS THERE ANY discussion of the biggest change in the Province in many years, being that there is a new government, or that one of the major issues in the election was Site C, which is why we are where we are today, Which is why this panel was set, or the reasons behind the change such as unwillingness to accept further environmental destruction, huge expense, breaking of Treaty 8, and lack of Hydros ability to see beyond their own need to build site C? In a word? No.

And there should be. Site C was one of the big election issues, it is pretty much common knowledge that Site C is going to hurt more than help the Province. Many people are willing to make sacrifices so that this destruction stops, and a responsible government will be able to show Hydro how best to resolve the problem of lack of awareness of negative drivers.

page 53 of Hydros submission, " At the provincial level, B.C. has a legislated target of reducing greenhouse gas emissions by at least 33 per cent below 2007 levels by 2020 and the long-term target of an 80 per cent reduction below 2007 levels by 2050;

- At the municipal level, the City of Vancouver has developed a Renewable City Strategy to shift to 100

per cent renewable energy in Vancouver before 2050 and to reduce greenhouse gas emissions by 80 per cent below 2007 levels before 2050.³³ BC Hydro has been in discussions regarding the supply of clean electricity to the City and is jointly studying pathways to greenhouse gas reductions. The City of Victoria has recently adopted similar renewable energy targets; and

- At the federal level, the government has developed a Pan-Canadian Framework on Clean Growth and Climate Change that examines various interregional cooperative policies to reduce greenhouse gases. The federal government has announced carbon taxes up to \$50/tonne, is looking to fund new electricity transmission infrastructure, and is developing low carbon fuel standards. All of these initiatives are expected to drive additional clean electricity consumption.

WHY EXPECTED additional electricity? Has Hydro looked at increased passive solar, geothermal heat, etc. And why, if the concern about global warming ie the environment, is driving the move towards electrification then why does Hydro assume that the concern for the environment does not affect whether the people of BC want to flood river valleys, in particular, the Peace with all its valuable resources in order to electrify? There is no justification for either assumption presented. In a future BC Hydro integrated resource plan evaluation by the BCUC there should be this examination of options that Hydro has assumed are not valid.

With respect to the Commissions question, 22.10 "Please discuss the potential implications and impact of Powerex joining, or potentially not joining, the Energy Imbalance Market and how that relates to the value of Site C energy and capacity. Include an analysis and discussion of the potential impact resulting from an expansion of Energy Imbalance Market.

"

I want to offer the following opinion, any attempt to set a contractual basis for exports to the United States will, under NAFTA, result in a requirement to continue meeting a ratio of exports to domestic use and I do not want to see that happen. It could mean the building of additional Hydro projects in BC to meet that ratio. We are not asking enough from export sales to recover the minor costs of constructing dams that are in the system or Site C, let alone even starting to calculate into the price, the environmental, social, or resource loss costs associated with these monstrosities. That kind of subsidization of our competitor to the south is not good business, to understate the case.

As well, from page 69 of the Panels preliminary report, "The results show that large storage hydro like Site C offers the operator the ability to use the resource in the hours when it is most valuable for ratepayers. When compared with BC wind generation the Company determined the value of Site C to be 28 to 40 percent higher.³⁰⁵ F1-1 Submission, Appendix F, pp.7-8 ** FROM PAGE 8, " A generator that can be dispatched to be run during the very high priced hours and shut off during the very low priced hours is worth significantly more than one that produces the same amount of energy over the year but delivers it randomly in both low price hours and high price hours. The use of the Mid-C market for this evaluation does not suggest that the generation from either set of facilities is planned to be exported. This market benchmark is simply a helpful measure to estimate the relative economic value of the two resources to the ratepayer on an operational timeframe. "

THAT SUGGESTION, like the proverbial horse, has already left the barn.

And that suggestion has to be countered. If it was not being suggested then what was the point of the paragraphs dealing with the possibility of higher and lower demand for such a product in an export

market in the future. There can be no firm exports. We do not need to subsidize other jurisdictions with our river valleys, our social structure, and our ratepayers wallets. This is not an option. It is an excuse to carry on doing more of the same destructive and unnecessary dam-building that has made the Province poorer than the benefits can compensate for.

If the value of having a dispatchable energy source for short term temporary markets is worth more to the Province, then Hydro needs to explain to the people why an existing resource like the Burrard thermal plant has to run at those hours rather than put wasted effort into trying to build site c.

In section 2.2 of BCHs submission they make the claim that, "Exports benefit our ratepayers while contributing to efforts throughout western

North America to combat climate change." SINCE there are other efforts, other disciplines involved in combatting climate change, has Hydro ever consulted with for example food security activists to determine the effect of the crown corporations planning and activity on

other efforts? The question also arises of whether exports provide a net benefit, or just a benefit? Surely a benefit is a good thing but if it isn't a net gain that means that the costs outweigh the benefits and it is a poor deal. Hydro cannot tell the Commission or the public that there would be a net benefit unless you first accept their weighted assumption that we are going to need Site C, not just any new electricity, but Site C. Between conservation, used as a buffer, and all of our other alternatives, competing for a place in the line and being and becoming cheaper than Site C, especially when you consider the 'externalities' we are not going to need this one massive, destructive, expensive Site C.

In some parts of society there is a belief (if that is not an oxymoron) in technocratic correctness. In the notion that when you have qualified people making decisions that affect other aspects of our working world, that it is their prerogative because it is their venue, their forum, it is what they do. I am not one of those believers. I look to a more collaborative approach that puts proponents and opponents on the same side of a decision that affects so much of our future. BC Hydro had the experience of a collaborative in its Conservation Potential Review and it ran away from it. It opted to try to smarm its way through a 'consultation' process that ignored any factor other than Hydro and the previous governments desires, including building for export. This whole approach and the results of it are unacceptable.

page 45, 5. " BC Hydros forecast, ... As directed by OIC 244, the Panel's analysis uses BC Hydro's low, mid-level or expected case and high load forecasts for peak capacity demand and energy demand that were provided by BC Hydro in its F17-F19 RRA. The Panel also considers the impacts of developments since the load forecast was prepared. "

Please Remember that one of the things that has occurred since Hydros forecast was in preparation is increased public awareness of issues like the 2007 conservation potential review. Or the 2012 press release from Hydro that the review is a milestone event.

chydro.com/news/conservation/2012/energy-future-conservation-vision.html

5.1.1 Other factors that could reasonably be expected to influence demand from the expected case toward the high load or the low load case.

One that comes to mind immediately is that one of the factors, one of the issues, in the recent BC election was the Site C dam construction and the really terrible management of BC Hydro over the last 15 years. The costs to BC society, from the poor decisions made, are going to drive our rates through the point of no return for a lot of electricity consumers, industrial, commercial, and residential. We have seen it already in the willingness of industrial consumers to adopt energy conservation and efficiency improvements, a factor in a reduced usage by industry. We are seeing it in commercial or municipal buildings where solar is starting to be added on building roofs and parking lots. And we are seeing it in increasing numbers of residential customers being cut off from BC hydro, or installing more efficient lighting and insulation.

With some better guidance from BC Hydro, Provincial and local governments we can optimize our conservation and renewables because of that heightened awareness of our present poor position. With some acceptance of the responsibility for the damage done to our social fabric and our sustainability options, from our existing network of hydro electric reservoirs, our crown corporation could better explain to people that our overuse of electricity leads to the misuse of our river valleys. With recognition of the depth of our financial difficulties through the lack of oversight of BC Hydro, and the costs that ratepayers and taxpayers are going to have to pay, it should be easy to convince people of the need to reduce our consumption of our River Valleys.

page 49, "BC Hydro describes its methodology at a high level as one that "involves adding the electricity billed sales forecasts from BC Hydro's main customer groups and then accounting for demand-side management

savings." WHERE IS THE HYDRO documentation that this is a valid way to include conservation potential savings? IE IF HYDRO IS JUST SAYING WE ARE TAKING OFF 60% OF GROWTH, WHERE IS THE ACCOUNTING SHOWING THE DROP IS HAPPENING, THAT THERE IS A PLAN TO ACHIEVE IT? Is it in the BC hydro submission?

BC Hydro submission page 8 "It (DSM) is a low cost energy resource with little to no environmental impact. Though Demand-side management is a key part of meeting future electricity demand, is not sufficient on its own." Sufficient for what? Sufficient to provide us a little breathing room to come to terms with and work our way out of the already massive debt that we have incurred in BC Hydros name? Sufficient to get us through to a point where our energy alternatives can prove themselves? Sufficient to drive economic growth in the Province? Sufficient to protect the environment and society which we hope our kids will enjoy?

BC Hydros generalizations are not proof that they have studied our options enough to have a reasonable government determine that flooding a beautiful and productive Peace River Valley is justified. This facile dismissal of DSM presented in Hydros application to the Commission needs to be investigated thoroughly before it is accepted at face value.

From PAGE 76 of the preliminary report, the BCUC Panel says, " We have made the following assumptions with regard to additional terms in the question posed above: 1. Commercially feasible means full-scale technology demonstrated in an industrial (i.e. not R&D) environment for a defined period of time. Publicly verifiable data exists on technical and financial performance. Regulatory challenges (e.g. safety certifications, lack of standards) have been addressed in multiple jurisdictions."

I want to agree with the Panel on this, and of course the definition, the criteria described, also apply to Site C. Publicly verifiable data do not exist in sufficient detail, on technical and financial performance, for a dam like Site C to gain regulatory approval. This has been the case from the start of this process in 1974, and the need for better data to assure the Province that it would be making the right decision seems to be the greater, the more Hydro tries to make its case.

It is seen in the slope stability issues that have already led to a large cost over run. It is seen in the lack of consideration for the public in the push to drive Site C past the point of no return as in the avoidance of ratepayer impact analysis. Or as seen in BC Hydro and government refusal to have meaningful consultation with first nations, unless evading determination of what Treaty rights are being evaded is somehow a meaningful part of consultation and decision making.

In the same discussion on page 73, the panel says, 3. Maintenance or reduction of 2016/2017 greenhouse gas emission levels means that the alternative portfolio must not increase the greenhouse gas intensity of BC Hydro's greenhouse gas emissions, as measured in CO2 tonnes equivalent per GWh generated.

And again I want to agree with the Panel, and again it must also apply to Site C as one of the alternatives that the commission is looking at. The intensity, the amount of greenhouse gas emissions per kwh, would increase with Site C. At least it would according to BC Hydro which makes the claim that emissions from a reservoir are short term, in the order of 20-25 years. If that is truly the case then all of Hydros old reservoirs are depleted of green house gases, and so Site C would increase the intensity of the system. And I am not being facetious. If this is to be a comparative criteria then the Panel must understand that the sequestration capability of the valley has never been measured. It would help to know that there is no difference between destroying that sequestration ability and emitting greenhouse gases.

I want to comment briefly on the speech given by Clara London towards the end of the last session in Fort St. John. Specifically her comment about the selectivity of material used in Hydros presentations. Ms London pointed out that Hydros wildlife reports have been highly suspect because of the lack of access to the baselines studies that were done on their, and our, as shareholders, behalf. It has always been a challenge getting copies of the baseline data that Hydro has used for any of its Site C reports. Hydro has flatly refused to release that material unless specifically ordered by the BCUC. This compressed hearing format has not allowed for the kind of time necessary to examine it if it was available. I ask the panel to consider this and Ms Londons comment when trying to understand Hydros positions.

Policy changes that our new Government and Energy Ministry should be considering in light of this very difficult project and the controversies that surround it. We need to levelize the playing field between proponents and opponents, the volunteers for the Peace have had to raise money by peddling pies for pennies to stop fully funded professionals from getting us into a position where we have to peddle power for pennies on the dollar. We need to recognize that there are interdisciplinary requirements in a much smaller development than Site C, and we can't rely on professional reliance to ensure our best options are adopted.

There has to be a re-establishment of the BCUC even if there are not large projects like Site C to adjudicate. There are ways and means to achieving a reasonable and responsible energy mix, and the BCUC should be positioned to help us get through the often self centered and angry discussions that will come. BC Hydro has been a valuable and essential crown corporation helping to build the Province we have. There is every reason for Hydro to be a part of the planning, construction, maintenance, and distribution in a more distributed grid. Changing its focus to being one of the public's sets of eyes and ears and hands in the developments in electricity over the coming years is necessary to improve trust, financial stability, and the optimum energy balance.

Thank you for your time and consideration Randal hadland