BC Hydro Integrated Resource Plan

Meeting B.C.'s Future Electricity Needs

First Nations Consultation Report

November 15, 2013

BC hydro
FOR GENERATIONS

EXECUTIVE SUMMARY

BC Hydro submitted its Integrated Resource Plan (IRP) to government on August 2, 2013, as required under the BC *Clean Energy Act*. Prior to submitting the IRP to government, BC Hydro had conducted two rounds of consultation on the development of the IRP in 2011 and 2012. A summary of the input from First Nations during the two previous rounds of consultation and BC Hydro's response is set out in Table 7-2 in Chapter 7 of the IRP.

On August 23, 2013, the Minister of Energy and Mines (Minister) directed BC Hydro to undertake final consultation on the IRP before government considers its approval of the plan and to complete this consultation by October 18, 2013. The Minister further directed BC Hydro to submit the IRP to government by November 15, 2013. This report summarizes the consultation undertaken pursuant to the direction from the Minister and the comments received from First Nations, Tribal Councils and First Nations organizations. First Nations' comments received during this last round of consultation (as well as First Nations' input and feedback from previous round of consultation) have been considered by BC Hydro and informed the IRP that BC Hydro is re-submitting to government on November 15, 2013.

The revised recommended actions were grouped in the following topic areas for the purpose of seeking comments: Supporting LNG, Conserving First, Managing Resources, Powering Tomorrow, and Preparing for the Unexpected.

Supporting LNG

First Nations were divided on the recommended action to support LNG and to the extent there was support, it was conditional on First Nations benefitting from the developments. In particular, many First Nations that commented sought clean or renewable energy opportunities to supply electricity to LNG plants. There was also opposition to this recommended action because of concerns about upstream

impacts of LNG development in the northeast area of the province, where natural gas production is located, and because of greenhouse gas emissions.

Conserving First

Although First Nations comments were generally supportive of conservation efforts, there is a concern that these will disproportionately burden lower income members of First Nations communities who may not have the ability to take advantage of conservation measures. This is consistent with comments from previous rounds of consultation on the IRP. The B.C. First Nations Energy and Mining Council (BCFNEMC) identified a concern among First Nations that there is a reduced emphasis on demand-side management (DSM) programs in the IRP released for consultation in August 2013 when compared to the last draft IRP.

Powering Tomorrow

Most comments opposed the recommended action relating to Site C, or deferred to the First Nations' that are impacted by the Site C project. The First Nations from the Site C project area that provided comments were critical of the approach to Site C taken in the IRP, which was thought to unduly favour Site C compared to other resources. First Nations opposed Site C on several grounds including the environmental impacts of large scale flooding; the project impacts on the exercise of treaty and aboriginal rights; the concern that the development of Site C will displace demand for small scale, independent power projects which benefit First Nations and are viewed as more sustainable; the risk of cost overruns and the risk associated with uncertainty about future need for the project; and questions about the implications of Site C for gas development in the northeast of the Province.

Managing Resources

This recommendation is of particular concern for First Nations and many provided comments that were opposed to it. Some commented on the need for First Nations consultation and accommodation regarding these decisions as they

would cause significant economic impacts on First Nations. There was a view that BC Hydro must prioritize the retention and renewal of electricity purchase agreements (EPAs) where First Nations are a partner or the main developer. There were also several comments about the lack of First Nations opportunities for clean energy development in the IRP. This is addressed more under General Comments below.

Planning for the Unexpected

The FNEMC supports the investigation of natural gas generation as a contingency measure; however, priority should be given to existing assets, such as the Resource Smart Projects, conservation initiatives and renewable supply options before pursuing natural gas generation. One First Nation in the northeast of the province commented that most of the contingency plan is tied to LNG development, and infrastructure investments should not be made without consultation with First Nations in the northeast that will experience the upstream effects of LNG. In the case of specific projects identified in the contingency plan, some First Nations explicitly deferred to the First Nations in the project area.

General Comments

Clean Energy Development

Many First Nations commented that they were concerned about the lack of opportunities for clean or renewable energy development in the IRP, and that this is at odds with provincial commitments to enhance First Nation opportunities in this sector. These concerns were raised in relation to many aspects of the IRP. There were several suggestions on how to create opportunities for First Nations, including expanded Standing Offer Program and Net Metering Programs, new calls for power, and priority given to projects that involve First Nations participation and support.

First Nations Consultation

The BCFNEMC was of the view that before the IRP is finalized, BC Hydro needs to do more to reach out to First Nations to adequately explain the latest draft of the IRP and respond to First Nations concerns. Some First Nations objected to the consultation on the IRP because it does not address their concerns, including project impacts, consultation and accommodation and other issues which are of importance to First Nations communities. Another First Nation pointed out that commenting on the IRP is not a substitute for meaningful engagement on BC Hydro operations in their territory. Some First Nations sought a separate process for individual First Nations (or groups of First Nations bands). There were also comments that meaningful consultation on the IRP has not occurred because of the lack of capacity funding for First Nations and the limited timelines for consultation.

First Nations concerns identified by the First Nations Energy and Mining Council

The BCFNEMC identified the following changes that were made to the IRP between the May 2012 Draft IRP and the August 2013 IRP, that are of particular importance to First Nations and the BCFNEMC:

- Reducing emphasis on DSM and conservation efforts;
- Reducing spending on EPAs by deferring, downsizing, or terminating pre-delivery EPAs, re-evaluating spending on EPA renewals and minimizing acquisition of new EPAs;
- No longer recommending developing energy procurement options to acquire up to 2,000 GWh per year from clean energy producers in the F2017 to F2019 time frame; and
- The continued inclusion and inherent promotion of Site C.

Table of Contents

List of Appendices

1 CONSULTATION SUMMARY

BC Hydro submitted its Integrated Resource Plan (IRP) to government on August 2, 2013, as required under the BC *Clean Energy Act*. Prior to submitting the IRP to government, BC Hydro had conducted two rounds of consultation on the development of the IRP in 2011 and 2012. Chapter 7 of the IRP contains a summary of the input received from First Nations during the two previous rounds of consultation. Table 7-2 in Chapter 7 of the IRP also contains a further condensed summary of input received from all three streams of consultation and BC Hydro's response. The IRP submitted to government on August 2, 2013 had been revised from an earlier draft IRP from May 2012. A description of the changes in the recommended actions from those contained in the May 2012 draft IRP and the August 2013 IRP from August 2, 2013 are also set out in Table 7-2 of Chapter 7.

In a letter to BC Hydro received on August 23, 2013 the Minister of Energy and Mines (Minister) directed BC Hydro to undertake a third and final round of consultation on the IRP before government considers its approval of the plan and to complete this consultation by October 18, 2013. The Minister further directed BC Hydro to submit the IRP to government by November 15, 2013. This report summarizes the consultation undertaken following the direction from the Minister and the comments received from First Nations, Tribal Councils and First Nations organizations. First Nations comments received during this last round of consultation (as well as First Nations input and feedback from previous round of consultation) have been considered by BC Hydro and informed the IRP that BC Hydro is re-submitting to government on November 15, 2013.

Note that the views represented in this report reflect the priorities and concerns of the First Nations, Tribal Councils and First Nations organizations who participated in consultation. There is no single First Nations perspective and the views provided by participants may not be representative of the views of individual First Nations that did not provide comments.

On August 29, 2013 BC Hydro sent a letter to First Nations seeking written comment on BC Hydro's IRP during the period from September 3 to October 18, 2013. The letter was faxed, mailed and emailed to those First Nations for whom BC Hydro had an organizational email address. While the consultation covered the IRP in its entirety, BC Hydro indicated that of particular interest to the Minister was feedback on aspects of the IRP that have changed since the May 2012 draft IRP and on BC Hydro's contingency plans to deal with uncertainty over the 20-year planning horizon. In the letter, BC Hydro directed First Nations to the BC Hydro website where the IRP was posted. Enclosed with the mail-out was a First Nations Comment Form, a summary of the IRP and Table 7-2 of the IRP at the end of Chapter 7 which provides a description of the changes in the recommended actions from those contained in the May 2012 draft IRP, a summary of input from each of the two previous rounds of consultation and BC Hydro's response to the input received to date. Attached as Appendix 1 is a copy BC Hydro's letter to First Nations dated August 29, 2013 with the enclosures.

1.1 First Nations Participation

First Nations that provided comments on the IRP are listed in Table 1-1 below. Comments were received through First Nations Comment Forms as well as in letters and emails.

Table 1-1 First Nations and Tribal Councils that provided written comments for BC Hydro's IRP

First Nations that provided written comments		
Cheam Indian Band	Lower Nicola Indian Band	Stk'emlupsemc te Secwepemc Nation
Daylu Dena Council	Lil'wat Nation	Sts'ailes
Ditidaht First Nation	Musqueam Indian Band	P'egp'ig'lha Council
Fort Nelson First Nation	Nadleh Whut'en Indian Band	Tla-o-qhi-aht First Nation
Gitanyow Band Council	Neskonlith Indian Band	Toquaht Nation
Gitxan Energy Inc.	Okanagan Indian Band	Treaty 8 Tribal Association
Haisla Nation Council	Saik'uz First Nation	Williams Lake Indian Band
Hupacasath First Nation	shíshálh First Nation	Sliammon First Nation
Huu-ay-aht First Nations	Simpcw First Nation	Squamish Nation
Kanaka Bar Indian Band	Snuneymuxw First Nations	Klahoose First Nation
Cowichan Tribes	Splatsin	

1.2 BC First Nations Energy and Mining Council

In addition to comments received from First Nations and Tribal Councils, the BCFNEMC provided extensive comments on the IRP. The BCFNEMC is accountable to and receives direction from the First Nations Leadership Council (FNLC) and First Nations in B.C. The BCFNEMC monitors and keeps the FNLC and First Nations informed of emerging issues, and conducts research and analysis on energy and mining issues. The BCFNEMC actively participated in and provided extensive input during previous rounds of consultation on the IRP, through their participation in two rounds of First Nations regional workshops in 2011 and 2012 and attending previous meetings of the Technical Advisory Committee (TAC). BC Hydro provided capacity funding to the BCFNEMC for their participation in the previous rounds of consultation on the IRP and in the current round.

The BCFNEMC's participation in the IRP process has been intended to provide a First Nations perspective on general and province-wide issues related to the IRP, to provide support and advice to participating First Nations and to highlight issues for First Nations that were unable to, or chose not to participate directly. BCFNEMC's role has been to supplement or support the views and rights of individual First Nations and in no way has been intended to override or displace these views and rights. Similarly, BCFNEMC does not purport to formally represent the views of any one First Nation or Tribal Council, and comments from the BCFNEMC do not bind individual First Nations to any recommendations or commitments.

The BCFNEMC have provided two reports on the IRP – one related to its involvement in the TAC meeting held on September 23, 2013, and the other a summary of First Nations concerns and perspectives heard by the BCFNEMC on important policy direction related to the IRP. A cover letter from the BCFNEMC and the two enclosed reports of the BCFNEMC are attached as Appendix 2.

2 SUMMARY OF FIRST NATIONS' COMMENTS ON THE IRP

The revised recommended actions in the IRP were grouped in the following topic area in the First Nations Comment Form: Supporting LNG, Conserving First, Managing Resources, Powering Tomorrow, Preparing for the Unexpected and General Comments. In addition to First Nations Comment Forms, BC Hydro received several letters with comments on the IRP which are attached as Appendix 3.

The following is a summary of the comments received from First Nations, Tribal Councils and the BCFNEMC along with the verbatim comments for each topic area provided by individual First Nations and Tribal Councils.

2.1 Supporting LNG

BC Hydro sought First Nations' level of support for BC Hydro's recommended action: to 'support the LNG industry' by reinforcing an existing 500 kilovolt transmission line from Prince George to Terrace; working with industry to explore natural gas supply options on the north coast to enhance transmission reliability to help meet the expected load; and being prepared to acquire clean energy supply in the future if LNG needs exceed existing, contracted supply.

First Nations were divided on the recommended action to support LNG and to the extent there was support, it was conditional on First Nations benefitting from the developments. In particular, many First Nations that commented sought clean or renewable energy opportunities to supply electricity to LNG plants. There was also opposition to this recommended action because of concerns about upstream impacts of LNG development in the northeast area of the province, where natural gas production is located, and because of greenhouse gas (GHG) emissions.

Many participants viewed LNG development as having the potential to create clean energy opportunities for First Nations. Some of these First Nations stated that at least 50% of the energy used to power new LNG plants should be produced using clean energy.

One participant opposed LNG if it used direct drive. There was a concern expressed about gas-fired generation as a supply option because of the associated greenhouse gas emissions and impacts to local ecosystems and air quality.

There was also concern about the cost of the infrastructure to support LNG. The BCFNEMC indicated that transmission costs should be carried by LNG plants and not by general customers. The BCFNEMC also indicated that generation near demand is preferable and would afford local First Nations economic development opportunities.

The written feedback received on the 'Supporting LNG' recommended action is set out in Table 2.1.1 below.

Table 2.1.1 Written Feedback on 'Supporting LNG' Recommended Action

Please provide your First Nation's level of support for BC Hydro's recommended action: to 'support the LNG industry' by reinforcing an existing 500 kilovolt transmission line from Prince George to Terrace; working with industry to explore natural gas supply options on the north coast to enhance transmission reliability to help meet the expected load; and being prepared to acquire clean energy supply in the future if LNG needs exceed existing, contracted supply.

First Nation	Agreement Level	Agreement Level Reasons
Cheam	Somewhat Disagree	For a First Nation Questionnaire, the question as stated, does not have a First Nation focus. The question focusses on supporting the LNG industry and BC Hydro working with industry to explore natural gas. Where does it say anything about working with First Nations? a) Facts: 1. First Nations have a significant say in developments such as these. 2. There is much money to be made as these LNG's supply the Asian market. b) Therefore: First Nations need to benefit as Aboriginal Rights & Title holders to our territories.
Fort Nelson	Strongly Disagree	The BC Government has estimated, based on different scenarios of 82 to 120 million tonnes per year of LNG

		exports, what the economic benefits might look like for British Columbia. Given the numbers generated by studies by Ernst and Young and Grant Thornton, economic benefits of LNG on a per unit of production basis can be estimated. Unfortunately, the government has not conducted similar estimates of the environmental costs of LNG. None of this work has been completed or even meaningfully entered into to date. As a result, it is difficult, if not impossible, for British Columbians, First Nations and the Crown itself to weigh the costs and benefits of LNG and expansions in the natural gas sector in BC. As a result, we have no way of knowing the balance between the environmental capital we are spending and short term economic gains. Fort Nelson First Nation (FNFN) is already dealing with massive impacts from the gas industry on our traditional territory and way of life. Any action taken by BC Hydro to encourage the development of an LNG export industry will have great impacts on our territory, as more natural gas will be withdrawn from our territory. For this reason FNFN cannot support any actions by BC Hydro to 'support the LNG industry' without full recognition and consultation related to the upstream impacts of the development of LNG export facilities. Currently, the BC Government has refused to recognize the interconnected nature of the gas industry. However, the BC Government's refusal to enter into meaningful consultation with FNFN on the development of LNG does not excuse BC Hydro from recognizing that actions they take in the northwest of the province will have profound impacts on the northeast gas producing parts of the province.

Huu-ay-aht	Somewhat Agree	In order to limit additional green gases, Huu-ay-aht encourages that BC Hydro and/or the BC Government try to negotiate with LNG proponents on providing a major source of electricity from a renewable resource, providing you are able to recoup your costs on infrastructure over xx years (suggestion).
Kanaka Bar	No Answer	Kanaka Bar does not directly nor indirectly benefit from the development of a LNG sector which is focused in the North, Howe Sound and Vancouver Island. It also appears that the LNG sector may self generate electricity by the burning of LNG. This is not clean energy as the process of burning fossil fuel releases carbon dioxides into the air - an effect that all British Columbians want to reduce and also a contradiction to the spirit and intent of the Clean Energy Act. We encourage BC Hydro to work with the LNG sector to ensure that their electricity needs (for LNG processing and incidental infrastructure requirements) are met through clean energy sources like wind, solar and run of river and request that a target of at least 50% of their needs be met through the clean energy sector. We understand that the LNG industry and their electrical demand have not "taken" off yet so there is time. It also takes time to permit a clean energy project so the IRP should be revised to ensure that IPP projects have certainty and are therefore motivated to proceed - meaning that if a project can be permitted and designed to today's standards - construction can proceed because there is a buyer - namely, BC Hydro, who can then deliver the electricity to where it is needed in British Columbia.

		Kanaka Bar, as do all First Nations and most of our rural communities, have an abundance of wind, solar and water resources within their backyards which can be developed as a source of clean energy for BC Hydro. However, the time, effort and monies necessary to gather the baseline data and start the permitting and design phase will not be done if there is no demand and the IRP (as drafted) gives every indication of no demand.
Lower Nicola	Somewhat Disagree	Out of respect for other First Nation's communities, Lower Nicola Indian Band (LNIB) is uncomfortable in providing comment on resource developments that may impact these communities. In regards to LNG in general, it is unclear in the IRP that BC Hydro has the power to support the load requirements of the LNG plants in their entirety. If BC Hydro does not have adequate supply to power the operations of LNG facilities it would require them to be self powered resulting in significant increases in GHG emissions. The increase in GHG emissions would have significant impact on the provinces ability to meet their legislated GHG target for the year 2020. Should LNG facilities be built as self generating facilities they may not be powered electrically in the future. However, should they be electrically powered (from clean sources) from the onset it would still be possible to have the plants be self powered in the future, providing greater flexibility to BC Hydro. In addition, the IRP for LNG may be inconsistent with the objectives of the Clean Energy Act that have identified a target of 93% of all electricity coming from

		clean or renewable sources. Furthermore, the Clean Energy Act strives to reduce GHG emissions through the use of clean or renewable resources. The IRP for LNG may also be inconsistent with the BC Jobs plan that identifies "Clean Technology and Green Economy" as critical sectors for BC's Growth. Both the Clean Energy Act and the BC Jobs Plan have been identified as a means of engagement and further reconciliation with First Nations communities. However, movement away from these plans may hinder relationship building and limit First Nations opportunities to participate in the energy sector as a supplier or service provider. In addition, the LNIB would be concerned about cost increases related to infrastructure improvements required to support the development of self powered LNG facilities.
Mount Currie	Strongly Disagree	Lil'wat Nation strongly disagrees with the assumption BC Hydro is making within its IRP that most LNG producers will use direct-drive natural gas turbines to run the cooling process to convert natural gas to liquid form. Given appropriate support and regulation, LNG energy needs could be supplied by small scale, environmentally sustainable, and renewable energy generating projects throughout the Province. This approach would allow for the economic benefit of LNG to be cast more broadly among First Nations and give a significant boost to green energy production within BC. The Lil'wat Nation community, citizens, local

		businesses and governance capacity would greatly benefit from the increase of demand for run-of-river power projects within Lil'wat Territory. Run-of-river hydro projects have the potential to provide a long term and reliable economic base for the Lil'wat Nation in a manner consistent with our environmental stewardship values.
Simpcw	Somewhat Agree	- There should not be an increase in electrical bills. - When burning natural gas whether here or off-shore there is production of emissions that negatively effect air quality and contribute directly to climate change. - Any pipeline installation negatively impacts the environment. A complete restoration plan needs to be in place that protects the environment. - Fracking contaminates ground water and uses large amounts of valuable fresh water. - Any development in First Nations traditional territory needs the approval of that First Nation.
Splatsin	Neither Agree or Disagree	The Splatsin area within Secwepemc territory is removed from the main part of the LNG development. However, we will impacted indirectly by the proposed LNG development. Unless there is an obligation to develop LNG with clean power there will be numerous impacts to our interests, including increased greenhouse gases.
Daylu Dena Council, Gitanyow, Gitxan, Huu-ay-aht, Musqueam, Nadleh	No Answer	We support the development of clean energy and believe as stated that, if these projects are to proceed, at least 50% of the energy needed to power these plants should be provided by clean energy.

Whut'en Saik'uz, Sechelt, Sts'ailes, Tla-o-qhi-aht		

2.2 Conserving First

BC Hydro sought First Nations' level of support for BC Hydro's recommended action: to support 'conserve first' by maintaining BC Hydro's DSM initiatives at the same level going forward as has been undertaken in recent years, and preparing to increase these measures as load increases. BC Hydro is relying on all three customer classes to undertake DSM activities and meet BC Hydro's 7,800 gigawatt hour/year target in fiscal 2021.

Although First Nations comments were generally supportive of conservation efforts, there is a concern that these will disproportionately burden lower income members of First Nations communities who may not have the ability to take advantage of conservation measures. This is consistent with comments from previous rounds of consultation on the IRP. The BCFNEMC identified a concern among First Nations with a reduced emphasis on DSM programs compared to the last draft IRP.

The BCFNEMC states that BC Hydro has made no effort to improve access of DSM programs to First Nations beyond simply acknowledging that First Nations have unique needs and challenges. The BCFNEMC reiterated the comments it provided in previous rounds of consultation: namely that they are supportive of aggressive DSM programs, not the downsizing of such initiatives, as long as the implementation of various measures is based on incentives rather than penalties; program design takes into account the circumstances of rural and off-grid First Nations communities; the need for business and economic development on First Nations lands is recognized; and, accessibility for lower and fixed income people is ensured. In addition, the BCFNEMC indicated that there would be First Nations

support for additional and mandatory measures such as time-of-use rates, so long as those were not punitive to residential and rural users, particularly First Nations.

The written feedback received on the recommended action on Conserving First is set out in Table 2.2.1 below.

Table 2.2.1 – Written Feedback on Conserving First recommended action

Please provide your First Nation's level of support for BC Hydro's recommended action: to support 'conserve first' by maintaining BC Hydro's demand-side management measures at the same level going forward as has been undertaken in recent years, and preparing to increase these measures as load increases. BC Hydro is relying on all three customer classes to undertake demand-side activities and meet our 7,800 gigawatt hour target in fiscal 2021

First Nation	Agreement Level	Agreement Level Reasons
Cheam	No Answer	No written comment provided
Fort Nelson	Neither Agree or Disagree	No written comment provided
Huu-ay-aht	Strongly Agree	Is the goal of 7800 gigawatt achievable with the development of LNG or other mega projects?
Kanaka Bar	No Answer	Kanaka Bar has installed smart meters in all our homes and businesses; just completed a BC Hydro ECAP program and we are in the process of acquiring energy efficient appliances and is implementing renovations to help reduce our community demand on electricity (and ultimately, reduce our electricity bills). Kanaka supports BC Hydro's effort to ensure that all British Columbians are encouraged to reduce their electricity consumption, particularly through education, modelling and reasonable incentives which demonstrate practical solutions and achievable steps that will result in a reduction of everyone's daily load demands.

		We do caution though that some demand side management tools may result in a punitive, "regressive" or negative impact on some of our membership who do not have the capacity to understand the why and how of conservation. We all want to do our part through and we will continue to work with BC Hydro in conservation. Net Metering We would ask BC Hydro to increase the net metering threshold to 1000 kW so that we can develop wind, solar and micro hydro projects to offset not just household demand, but community infrastructure demands too. With strong net metering program, British Columbians everywhere can put solar panels on their roofs, small wind towers in their yards and harness the power of the creeks and their pressurised domestic water supply sources. Here in BC, we have all seen clean energy success stories like Tsouke First Nation and other seen stories nationally and internationally about successful clean energy projects. Kanaka would like the world to have more success stories coming out of British Columbia and a revised IRP which encouraged (and even provided strong incentives) for more IPP and net metering would generate those success stories.
Lower Nicola	Somewhat Agree	The LNIB continues to support efforts to reduce energy consumption and conserve resources. These principles strongly resonate with the culture of our community. As an example we have upgraded a number of programs such as waste management as a means of reducing our overall resource consumption. However the cost of reduction or conservation efforts is a great concern for our Band as we are challenged to finance the existing housing and infrastructure requirements for our growing community.

		Currently, the LNIB would require support from Aboriginal Affairs and Northern Development Canada for additional investment to develop measures to reduce our power consumption requirements. The LNIB could support requirements through implementation of land code for private developments on reserve to meet higher energy conservation targets provided these were met with incentives as opposed to shortfall penalties.
Mount Currie	Neither Agree or Disagree	The Lil'wat Nation supports the concept of conservation but is concerned that the proposed approach will lead to a disproportionate burden on lower income people who may not have the ability to take advantage of energy conservation measures. Many Lil'wat Nation citizens live in poverty and do not have energy efficient household appliances or well insulated homes. We are concerned that this population would pay a disproportionate cost for power consumption under the proposed demand-side management measures.
Simpcw	Strongly Agree	Conservation and efficiency is important for all users. It is extremely important that we have science involved in providing more efficient ways to meet our electrical needs. We need to invest heavily into scientific inquiry into many of the issues in front of us today.
Splatsin	Strongly Agree	No written comment provided
Daylu Dena Council, Gitanyow, Gitxan, Huu-ay-aht, Musqueam, Nadleh	No Answer	We support the use of energy conversation measures; however, we believe that these measures should be paired with responsible and sustainable IPP development.

Whut'en Saik'uz, Sechelt, Sts'ailes, Tla-o-qhi-aht		

2.3 Powering Tomorrow

BC Hydro sought First Nations' level of support for BC Hydro's recommended action: to 'power tomorrow' by building Site C, a proposed third dam and generating station on the Peace River, which would provide cost-effective, reliable and renewable electricity for generations.

Most comments opposed the recommended action relating to Site C or deferred to the First Nations that are impacted by Site C. The First Nations from the Site C project area that provided comments were critical of the approach to Site C taken in the IRP, which was thought to unduly favour Site C compared to other resources. First Nations opposed Site C on several grounds including the environmental impacts of large scale flooding; the project impacts on the exercise of treaty and aboriginal rights; the concern that the development of Site C will displace demand for small scale, independent power projects which benefit First Nations and are viewed as more sustainable; the risk of cost overruns and the risk associated with uncertainty about future need for the project; and questions about the implications of Site C for gas development in the northeast of the province.

The First Nations in the project area criticized the IRP for not addressing the issue of sustainability and recommended a "limits"-based approach to planning which recognizes ecological limits. There were numerous criticisms of the planning assumptions and methodologies used in developing the IRP, including:

- The IRP ignores the implications for its proposed resource plans where load growth and/or power markets prices are lower than forecast, or that DSM results are better than planned.
- The absence of a quantitative rate impacts under various scenarios explored by the IRP makes it impossible to assess the risk of such an outcome.
- The notion that DSM options are examined in the context of Site C rather than letting the System Optimizer determine the inclusion of Site C.
- The treatment of DSM costs is not consistent with good utility practice.
- The costs of Site C are presented in energy when they should be provided in terms of capacity and compared to the cost of other capacity resources.
- The Resource Options Report does not include other alternatives for consideration.

The BCFNEMC does not support the inclusion of Site C at this time. They state that Site C will have significant, long-lasting impacts in the local region, yet the benefits of such projects are experienced elsewhere. The BCFNEMC say it is inappropriate to focus on the project from a provincial perspective until regional concerns and issues have been addressed.

One First Nation in the northeast of the province commented that Site C should not be pursued without first recognizing the purpose for it being built and all of the connected projects and impacts of the development, particularly the Northeast Transmission Line. Another First Nation proposed that BC Hydro contemplate a gas-fired generation facility in the Savona area as an alternative to Site C.

Apart from Site C, the BCFNEMC would like to see priority given to the Columbia River Treaty to be consistent with the Province's commitments to clean energy and reduced GHG emissions.

The written feedback received on Powering Tomorrow recommended action is set out in Table 2.3.1, below.

Table 2.3.1 – Written Feedback on Powering Tomorrow Recommended Action

Please provide your First Nation's level of support for BC Hydro's recommended action: to 'power tomorrow' by building Site C, a proposed third dam and generating station on the Peace River, which would provide cost-effective, reliable and renewable electricity for generations

First Nation	Agreement Level	Agreement Level Reasons
Cheam	Neither Agree or Disagree	The response to this question depends on conditions. A) Conditions: 1. Consideration and acting on First Nations concerns on the impact on the Peace Valley. 2. If First Nations agree to the project. That the First Nations benefit accordingly. B) Other Concerns: 1. Cost, The estimated cost of this project is $8 billion. The concern is BC Hydro's practice of deferring costs/expenses to future years. This involves risk and does not reflect the true cost of doing business. 2. Profitability, a) Pricing needs to be set on the free market so as to not download any negative impact on rate payers. b) The province is expected to take $545 million from BC Hydro this year. This practice does not reflect true profits. Rate payers should see reductions instead. First Nations should also benefit
Fort Nelson	Strongly Disagree	BC Hydro has not been forthcoming with Fort Nelson First Nation regarding the purpose of the energy created at Site C. The Premier is on the record as saying that Site C is crucial to the development of the LNG export sector. In last election's leadership debate

		Christy Clark said, "Site C is making sure that we can bring this generational opportunity of liquefied natural gas home for our kids. Its part of the clean energy plan to make sure that we can export that natural gas to Asia" (BC Leadership debate April 29, 2013). Fort Nelson First Nation believes that Site C should not be pursued without first recognizing the purpose for it being built and fully examining all of the connected projects and impacts of the development. Specifically, FNFN is concerned about the development of the Northeast Transmission Line. This line would greatly reduce the cost of producing gas in our region and would have great environmental impacts on our territory. As of yet, BC Hydro has not engaged in meaningful consultation on the Northeast Transmission Line and other BC Hydro efforts to support the gas industry.
Huu-ay-aht	Neither Agree or Disagree	Huu-ay-aht will defer to the local First Nations' views and respect their decisions.
Kanaka Bar	No Answer	As British Columbians, our heritage assets are something that we can all be proud off. We do understand that forecasted demand will exceed current supply so additional supply options are needed. While Site C represents an opportunity to address future demand, so does independent power production through negotiated EPAs (large scale projects), the SOP (15MW and under) and net metering. Choosing Site C and upgrading heritage assets while eliminating another viable, cost effective home grown clean green energy alternative does not make sense. Our experience in design and construction also gives

		us the ability to say - that despite our best efforts; we still wound up 3 years behind schedule. We therefore expect BC Hydro chosen options will also be delayed. IPP can meet the demand and demand increase during the lag time.
Lower Nicola	Somewhat Disagree	Similar to LNG, the LNIB is uncomfortable providing comment around specific projects that may impact other First Nations and their territories. It would be prudent of the Province and BC hydro to ensure that any mega-projects meet similar "principle" requirements that have been applied to the Enbridge Pipeline project, specifically with respect to environmental impacts and First Nations' Title and Rights. The cost of major projects such as Site C (appox $8 bil.) is significant and is extremely vulnerable to going over budget in a similar manner to the Northwest Transmission line. A similar cost increase in the development of such a project could be more than a $1 bil. From a financial standpoint, Site C presents a considerable risk to the Province, BC Hydro and its rate payers; particularly in light of uncertainty in terms of future load requirements. The financial and environmental risk may be unnecessary when other clean power options may be available that are: - more aligned with the Clean Energy Act; - supporting economic development throughout all regions of the province; and - subsequently provide an opportunity for many First Nations communities to participate and lead in a

		Green Economy. The distribution of clean energy projects throughout the province may also support a more stable electrical grid providing reliable power to greater reaches (remote communities) of the province. Such developments could also be completed at less risk to the Province, BC Hydro and its rate payers.
Mount Currie	Strongly Disagree	Lil'wat Nation strongly disagrees with BC Hydro's recommended action to "power tomorrow" by building Site C. The development of Site C will lead to significant environmental impacts from additional large scale flooding in the Peace River Valley. There will be impacts on fish, wildlife and vegetation. Site C will also lead to an increase of CO_2 emission into the atmosphere due the flooding and permanent loss of forested land. The development of Site C will also displace demand for small scale and environmentally sustainable independent power projects. Lil'wat Nation will face economic impacts from the supply of power from Site C displacing the need for run-of-river power projects within Lil'wat Territory. Alternatively, Lil'wat Nation proposes that BC Hydro plan future energy needs to be met through First Nations' participation in sustainable, renewable and small scale energy projects. In recent years First Nations across the province have taken advantage of the opportunities to participate in independent power projects within their traditional territories. This trend has been successfully bringing much need revenue-streams to First Nation governments and an economic boost to many remote communities. To support the potential for a thriving green economy in BC, and provide much needed

		economic growth to First Nation communities, we proposed that BC Hydro put forward policy for prescribed First Nation participation in its Clean Energy Power call, and amend the Standing Offer Program to allow for greater flexibility and incentives for companies to partner with First Nations. For example, allow for a Standing Offer Program project to exceed the 15 MW threshold if First Nation support is provided.
Simpcw	Strongly Disagree	Reasons not to build the Site C dam. - The site C dam would flood over 100 km of river valley. - It would negatively impact the Treaty 8 First Nations' traditional territory. The First Nation use this area for hunting, fishing, and trapping. - flooding the valley would destroy some of the best, most fertile agricultural lands and farms in BC. - The valley is a important wildlife corridor in the Yellowstone to Yukon migration corridor chain.
Splatsin	Strongly Disagree	Planning power development for the future has to be focused on each regions development capacity and needs. The priority needs to be for each region to identify its own need for power, sources of power, and develop its own power. We cannot be creating power in one region and having another region benefit from it.
Daylu Dena Council, Gitanyow, Gitxan, Huu-ay-aht, Musqueam, Nadleh	No Answer	We do not believe that relying on BC Hydro proposed projects such as Site C or the historic infrastructure projects is appropriate. IPP development can be critical to economic development within First Nations communities. The SOP, as currently drafted, is not

Whut'en Saik'uz, Sechelt, Sts'ailes, Tla-o-qhi-aht		sufficient to provide for economic opportunities.

2.4 Managing Resources

BC Hydro's sought First Nations' level of support for BC Hydro's recommended action: to 'manage resources' by managing the costs associated with BC Hydro's current energy portfolio of EPAs and selecting the most cost-effective plan to meet customer's needs within the context of the *Clean Energy Act*.

This recommendation is of particular concern for First Nations and many provided comments that were opposed to it. Some commented on the need for First Nations consultation and accommodation regarding these decisions as they would cause significant economic impacts on First Nations. There was a view that BC Hydro must prioritize the retention and renewal of EPAs where First Nations are a partner or the main developer. There were also several comments about the lack of First Nations opportunities for clean energy development in the IRP. This is addressed more under General Comments below.

The written feedback received on Managing Resources recommended action is set out in Table 2.4.1 below.

Table 2.4.1 – Written Feedback on Managing Resources Recommended Action

Please provide your First Nation's level of support for BC Hydro's recommended action: to 'manage resources' by managing the costs associated with BC Hydro's current energy portfolio of EPAs and selecting the most cost-effective plan to meet customer's needs within the context of the Clean Energy Act

First Nation	Agreement Level	Agreement Level Reasons
Cheam	No Comment	No written comment provided
Fort Nelson	Neither Agree or	No written comment provided

	Disagree	
Huu-ay-aht	Strongly Agree	No written comment provided
Kanaka Bar	No Answer	Meeting BC demand today and tomorrow is complex. Simply put, BC Hydro and British Columbia will need to expand IPP production of a clean energy electricity supply, not limit, delay, defer or cancel projects. If BC Hydro's vision is to meet supply shortfall by importing and large projects, you will expose everyone to an avoidable risk, meaning British Colombians may wind up losing power (or paying through the nose) if we have to depend on others to supply our electrical needs because we decided today that we were not going to make the effort to develop our own local resources for tomorrow. A diverse range of clean energy sources located throughout BC will mean that dependency on 3rd parties will be reduced and all British Columbians have electricity certainty if the BC Hydro grid (or import grid) goes down. Localised diverse power sources can continue to supply local electrical users while the grid is been repaired.
Lower Nicola	Strongly Disagree	Disruption to the advancement of Clean Energy Projects negatively impacts First Nations in several ways. Provincial programs such as the Clean Energy Business fund have supported First Nations involvement in the clean energy sector and have provided an avenue of economic development for First Nations communities. Other provincial and federal funding sources supporting the advancement of Clean Energy

		Projects for First Nations communities may be miss-directed if the projects cannot move forward through changes to Electrical Purchase Agreements (EPA). The direction of IRP with regard to EPAs again seems to be in conflict with the Clean Energy Act and the BC Jobs Plan by working against the development of clean energy as an opportunity for First Nations economic development and participation in the BC economy.
Mount Currie	Somewhat Disagree	The Lil'wat Nation supports the review of IPPs for the benefit of ensuring projects are cost effective and companies are meeting contract obligations; however, we also expect BC Hydro to consider the potential impact cancellation of projects may have on First Nation interests. The Lil'wat Nation has negotiated Impact Benefit Agreements with companies operating within our traditional territory with the expectation that the project will continue for the duration of its 40 year lease and beyond. Existing and potential future revenue-sharing and equity participation agreements with companies are projected over the long term. Cancellation of independent power projects within Lil'wat Territory without further consultation would cause significant economic impacts to the Lil'wat Nation.
Simpcw	Somewhat Agree	- Cost effective cannot over rule other issues like the environment or consultation with First Nations people. All issues need to be addressed when cost is being examined.
Splatsin	Somewhat Agree	While the province needs to consider costs of

		energy purchased by independent power producers (IPP's), they must also consider first nations interests. BC hydro has a narrow mandate when it comes to accommodating first nations for impacts to title and rights. In IPP developers have the ability to establish a true partnership with first nations, whereas BC Hydro is limited to signing impact benefits agreements. Most first nations today want to be a partner in all natural resource industries, and energy is no different. IPP development should only go forward when there is a first nation partnership established. The process needs to start at the onset of development. The best approach is to offer first nations first right of refusal on independent power production through a request for proposal process. Any first nations that are qualified should be offered to provide the electricity to BC Hydro before anyone else within their territory. The BC First Nation Clean Energy Business Fund is a good start to building capacity for first nations. Nevertheless, there needs to be progress made in BC Hydro's (and BC's) commitment in establishing a "new relationship" with first nations. A first nations call for power is the only what to move forward with IPP developments.
Daylu Dena Council, Gitanyow, Gitxan, Huu-ay-aht, Musqueam, Nadleh Whut'en Saik'uz, Sechelt,	No Comment	The current draft of the IRP, as stated above, does not meet the objectives of the Clean Energy Act or our vision of the future. We strongly disagree with BC Hydro's proposed management of resources.

Sts'ailes, Tla-o-qhi-aht		

2.5 Planning for the Unexpected

BC Hydro sought First Nations' level of support for BC Hydro's recommended contingency plans that: continue to advance capacity resource options, including advancing the Revelstoke Generating Station Unit 6 Resource Smart Project; the GM Shrum Units 1-5 Capacity Increase Generating Station Resource Smart project; and working with industry to explore natural gas supply options.

The BCFNEMC supports the investigation of natural gas generation as a contingency measure, however, stated that priority should be given to existing assets, such as the Resource Smart Projects, conservation initiatives and renewable supply options before pursuing natural gas generation. One First Nation in the northeast of the province commented that most of the contingency plan is tied to LNG development and infrastructure investments should not be made without consultation with First Nations in the northeast that will experience the upstream effects of LNG. In the case of specific projects identified in the contingency plan, some First Nations explicitly deferred to the First Nations in the project area.

The written feedback received on Planning for the Unexpected recommended action is set out in Table 2.5.1 below.

Table 2.5.1 – Written Feedback on Planning for the Unexpected Recommended Action

Please provide your First Nation's level of support for BC Hydro's recommended contingency plans that: continue to advance capacity resource options, including advancing the Revelstoke Generating Station Unit 6 Resource Smart Project; the GM Shrum Generating Station Resource Smart project; and working with industry to explore natural gas supply options.

First Nation	Agreement Level	Agreement Level Reasons
Cheam	Neither Agree or	The response would reiterate those expressed on the

	Disagree	questions on pages 4 and 8 [see Cheam Indian Band responses to Supporting LNG and Powering Tomorrow]
Fort Nelson	Somewhat Disagree	Similar, to our comments on "Supporting LNG", much of the "unexpected" that needs to be planned for is LNG and natural gas development. FNFN strongly [sic] that while BC Hydro does not to have contingency plans, BC Hydro should not make major infrastructure investments to prepare for LNG energy demand. This is especially true given the lack of consultation related to LNG that has occurred in the northeastern part of the province.
Huu-ay-aht	No Comment	Huu-ay-aht will defer to the local First Nations' views and respect their decisions.
Kanaka Bar	No Answer	Forecast demand is an exercise that comes with much uncertainty. We feel that BC Hydro is underestimating BC's future demand growth and that we will experience supply shortages, sooner, rather than later. If BC Hydro cannot meet the demand, then we run the risk of going to the market - and this will not be cheap and worse, may not be available if the market itself is tapped out due to their own increased demands. Once again, we ask BC Hydro to encourage and actually provide incentives to create province wide diverse and variable green energy source development to meet future electricity demands. Multiple wind, solar and run of river projects of varying sizes located throughout BC is not a bad thing and must be encouraged so that if the future demand does exceed planned supply development, then there is a home grown alternative to import. British Columbians supplying British Columbians with electricity. An achievable intangible benefit difficult to quantify.

Lower Nicola	Somewhat Disagree	Out of respect for other First Nation's communities, LNIB is uncomfortable in providing comment on resource developments that may impact these communities. However, when broadly considering these projects, the Band recommends that new projects meet similar principles to those applied to Endbridge and again with the focus specifically relating to the environment and First Nations' Title and Rights. The suggestions of contingency planning supports concerns around the financial and environmental risks should a mega-project not be feasible or meet energy demand. This is of particular concern considering climate change and the potential reduction of stream flows available to large hydro projects. Diligent contingency planning should also include a call for clean power in order to provide a comprehensive inventory of potential energy opportunities. Provincial support for clean energy projects, will result in continued support for the sector and provide a more realistic opportunity for First Nations throughout BC.
Mount Currie	Somewhat Disagree	Lil'wat Nation supports the concept of improving the efficiency of existing energy generation infrastructure; however we disagree with BC Hydro seeking future capacity resource options through natural gas exploration. Instead, we recommend that future planning for increased power demands be focussed on renewable, small scale and environmentally sustainable projects. This would encourage the development of independent power projects in our traditional territory, such as run-of-river hydropower, thus bringing economic growth for our community that is consistent

		with our environmental stewardship values.
Simpcw	Somewhat Agree	It is always good to have contingency plans in place. If we make what is in place more efficient that is good.
Splatsin	Neither Agree or Disagree	Rev 6 is in the heart of Splatsin's area within Secwepemc territory. If the province and BC Hydro are willing to recognize the true impact of this facility on our title and rights Splatsin would consider supporting this project. However, without true recognition of our title and rights and the impacts of this facility, our community will be forced to use other methods to seek accommodation.

2.6 General Comments

2.6.1 Clean Energy Development

Many First Nations commented that they were concerned about the lack of opportunities for clean or renewable energy development in the IRP, and that this is at odds with provincial commitments to enhance First Nation opportunities in this sector. These concerns were raised in relation to many aspects of the IRP. There were several suggestions on how to create opportunities for First Nations, including expanded Standing Offer Program and Net Metering Programs, new calls for power, and priority given to projects that involve First Nations participation and support.

Several First Nations, including the BCFNEMC indicate that clean and renewable energy is becoming an increasingly important economic driver in First Nations communities, providing opportunities for jobs, revenue, and improved socio-economic conditions. Clean energy development opportunities are a means to diversify their local economies and when other industries, such as fishing and forestry, are experiencing downturns. Indeed, most First Nations that provided comments indicate that greater opportunities should be created for First Nations

involvement in the clean energy sector. The BCFNEMC stated that recommended actions that inhibit clean energy opportunities for First Nations are not acceptable.

Several First Nations indicated that the IRP, in its current form, undermines rather than advances the vision of First Nations participation in clean, renewable energy development. Comments made jointly by a group of First Nations state, among other things, that:

- B.C.'s approach to energy development and the IRP must first and foremost, protect the environment by utilizing the cleanest power options possible. Second, it must ensure First Nations have robust opportunities to participate in energy development projects on our lands.
- If the IRP is approved, it will pre-emptively eliminate future First Nations involvement in the clean energy sector for many years to come and result in the loss of much of the effort and capital invested to date.
- The IRP will not meet the objectives of the Jobs Plan which identified technology, clean tech and a green economy as one of the eight critical sectors for BC’s growth.
- The IRP contradicts or side-steps the Clean Energy Act objectives of 93% clean or renewable generation and target reductions in GHG emissions

Standing Offer Program

Several First Nations stated their support for the continuation of the Standing Offer Program for small, community-owned clean energy projects. Many First Nations have asked that the Standing Offer Program be expanded by including projects greater than 15 MW and by raising the cap on the total energy acquisitions under the program in a year. Several First Nations also sought to have projects with First Nations participation prioritized or favoured in the procurement process.

BC Hydro's Energy Procurement Process

There was criticism of BC Hydro's competitive energy procurement processes on the basis that they are complex, cumbersome, create false expectations and do not ensure adequate return on investment to project proponents. There were many suggestions on how to change the energy procurement process to create greater opportunities for First Nations in the clean energy sector including:

- A First Nations call for power;
- Energy pricing premium for First Nations community owned generation;
- All projects should provide an opportunity for First Nations equity participation and should demonstrate First Nations support. Future calls for clean power and the Standing Offer Program should have a First Nations "prescribed" level of participation - setting basic levels of First Nations partnership as a criterion and prerequisite for eligibility for any RFP or call;
- There should be broad commitment to a price range;
- Projects should demonstrate as a part of the EPA process they have the finances in place and a proven developer to build the projects;
- Regional strategies to create opportunities for local communities to meet demand should be developed; and
- Transmission lines should be developed and maintained in a coordinated manner while providing First Nations participation.

Net Metering

First Nations have expressed interest in seeing the Net Metering program extended from the current cap of 50 kW to 250 kW - 1000 kW.

First Nations Clean Energy Business Fund (FNCEBF)

The *Clean Energy Act* enabled the creation of the FNCEBF which has an initial appropriation of up to $5 million and aims to promote increased First Nation participation in the clean energy sector within their asserted traditional territories

and treaty areas through agreements between the BC Government and the eligible First Nations. There was a concern that the IRP will end new project development and therefore, the resource rents that were intended to keep the FNCEBF active and growing will also end.

Water Licenses

There was concern that clean energy opportunities for First Nations are limited by the lack of available water licenses, which were granted in previous years. It was suggested that the water licensing system needs to change so that First Nations can obtain water licenses that had previously been granted.

Transmission

Transmission line development and maintenance can and should also provide considerable economic and social benefit to First Nations.

2.6.2 First Nations Consultation

The BCFNEMC was of the view that before the IRP is finalized, BC Hydro needs to do more to reach out to First Nations in order to adequately explain the latest draft of the IRP and respond to First Nations concerns. Some First Nations objected to the consultation on the IRP because it does not address their concerns, including project impacts, consultation and accommodation and other issues which are of importance to First Nations communities. Another First Nation pointed out that commenting on the IRP is not a substitute for meaningful engagement on BC Hydro operations in their territory. Some First Nations sought a separate process for individual First Nations (or groups of First Nations bands). There were also comments that meaningful consultation on the IRP has not occurred because of the lack of capacity funding for First Nations and the limited timelines for consultation.

2.6.3 First Nations Concerns Identified by the BCFNEMC

The BCFNEMC identified the following changes that were made to the IRP between the May 2012 Draft IRP and the August 2013 IRP, that are of particular importance to First Nations and the BCFNEMC:

- Reducing emphasis on DSM and conservation efforts;
- Reducing spending on EPAs by deferring, downsizing, or terminating pre-delivery EPAs, re-evaluating spending on EPA renewals and minimizing acquisition of new EPAs;
- No longer recommending developing energy procurement options to acquire up to 2,000 GWh per year from clean energy producer in the F2017 to F2019 time frame; and
- The continued inclusion and inherent promotion of Site C.

The BCFNEMC also indicated their disappointment with BC Hydro for not considering First Nations rights and title to traditional territory as a fundamental basis on which to plan future generation and transmission requirements, and for not adopting new ownership and revenue-sharing policies to permit and facilitate First Nations participation in the development of major energy projects.

Participants were invited to provide additional written feedback not specific to the recommended actions. This additional feedback is set out in Table 1.6.1 below.

Table 1.6.1 – General Comments

First Nation	Feedback
Cheam	From Table 7-2, Consultation Spring 2011 and Spring/Summer 2013 P.65 – First Nations input <u>First Nations requested</u>:

	-there be partnerships between First Nations and BC Hydro on decision making - BC Hydro provide an understanding of impacts on First Nation territories - Capacity funding for First Nations to help First Nations understand the technical elements of the IRP - Involvement of Senior BC Hydro leaders - Meetings with First Nation Communities BC Hydro Response: BC Hydro did not undertake separate consultation process with individual First Nations on the development of the IRP because the IRP addresses planning considerations for BC Hydro's Entire service area. Cheam Response: BC Hydro has an obligation to meaningful consultation. First Nations have requested information on the impact to their territories. Responsiveness is a key requirement in the consultation process. *Haida* sets out that the trigger for consultation is when there is an adverse affect on the rights of First Nations. The First Nations have requested information from BC Hydro that informs First Nations about possible adverse affects on their territory. This information from BC Hydro is not forthcoming. *Haida* sets out that there must be direct engagement. Sending out the IRP plan is not sufficient. *Mikisew* states that engagement requires the provision of information addressing First Nations interests and impacts on those interests. First Nations, Once again, are requesting this information. *Mikisew* requires that feedback is solicited from First Nations and to listen carefully to concerns. *Mikisew* also requires that it must be substantiated that there is/was an intention to substantially address First Nations concerns. At the very least, BC Hydro could arrange to meet with First Nations on a nation territory basis (therefore covering several bands per territory) *Taku*, *Haida* and *Mikisew* require that a consultation process must

	demonstrate that there is an intention to substantially address Aboriginal concerns.
Fort Nelson	Recommendation 13 recommends that BC Hydro “continue discussions with B.C.’s northeast gas industry and undertake studies to keep open electricity supply options, including transmission connection to the integrated system and local gas-fired generation.” Recommendation 17 recommends that BC Hydro “investigate procurement options to serve future Fort Nelson load.” Both of these recommendations within the IRP are of direct interest to FNFN. FNFN should be involved in any discussions of electrifying the Horn River Basin, local gas-fired generation and all procurement options for Fort Nelson at the earliest possible stage. Quite frankly, this consultation should already be happening. BC Hydro is currently having continuing discussions with B.C.’s northeast gas industry regarding these issues, but have not brought FNFN into the discussion. In fact as we speak BC Hydro is helping industry examine a central access road that will open up our territory and potentially provide a corridor for the Northeast Transmission Line. BC Hydro and industry are aware of Fort Nelson First Nation's strongly held opposition to both projects; yet industry and BC Hydro are engaging in studies to advance these projects without consulting us. This outdated form of consultation, where government and industry make plans, then talk to the First Nation after the plans have been agreed to, does not meet the needs of FNFN. FNFN has expertise and experience in land use planning and intends to have a meaning voice in the governance of our territory. In recognition of this fact, BC Hydro needs to begin meaningful and respectful consultation on the possibility of electrifying the Horn (including the Northeast Transmission Line), local gas-fired generation and all procurement options for Fort Nelson.
Huu-ay-aht	Huu-ay-aht has only answered the questions in a broad sense because they were very focused in their subject matter. Also enclosed are other comments that we feel should be addressed.

Kanaka Bar	Since BC Hydro first opened up the possibility of IPP in 1988, British Columbia's have considered and are now embracing the concept that by working together, lands and resource can be developed sustainably by using local area renewable resources to supply British Columbia with electricity. First Nations and rural communities have significant renewable resources in our backyards like wind, solar, run of river and biomass that could be pursued. After 30 years of experience, Kanaka Bar has the capacity to do more. We have even starting looking at the options but will not expend our time, effort and money if there is no demand. That is unfortunate and a reversal of 25 years of working together with BC Hydro, industry and government to do something different. Clean Energy Business Fund Created in 2010, we understand that 120 of 203 BC First Nations have submitted proposals and that 70 are now successfully utilising the fund to gather information on the clean energy sector and the opportunities available for their respective communities. The IRP, as drafted, will end new project development and therefore, the resource rents that were intended to keep the fund active and growing will also end.
Lower Nicola	The LNIB continue to maintain their Title and Rights relating to all of the land and resources within the Nlaka'pamux Territory. While the IRP is intended to be a strategic planning document, many of the primary topics have involved specific projects as opposed to sectors or types of energy production. The mention of specific projects prior to meeting consultation and accommodation obligations with potentially impacted First Nations communities may be seen as threat to First Nations Title and Rights. As described, the clean energy sector has been an important economic opportunity for First Nations communities. First Nations economic development is critical to providing programs and services to our community. Expanding our economic base supports our interest in expanding these services in a manner that meets our vision for a healthy

	sustainable community. Such a vision could include the advancement of efforts to reduce our communities energy consumption. Moving forward we would ask BC Hydro to continue working with LNIB in order to provide a meaningful opportunity to participate in the energy economy and specifically the green energy economy. Finally, LNIB would request that deeper consultation be completed with our leadership prior to approving the IRP.
Mount Currie	Lil'wat Nation opposes BC Hydro's amendments to its Integrated Resource Plan. The plan clearly steers the focus of energy production away from small scale, renewable and environmentally sustainable energy production. Not only is this contrary to our values to protect our land and resources, but it also threatens severe economic impacts to our Nation. Lil'wat has embraced the opportunity to develop run-of-river hydro projects and work with proponents of run-of-river hydro projects within our traditional territory. Past BC Hydro policy has encouraged the growth of this industry and created effective incentives for companies to work with First Nations. As a result we have finalized Impact Benefit Agreements with companies that were intended to bring long term revenue streams to our Nation. In addition, the amended IRP not only deters the potential for future development of run-of-river hydro projects within our traditional territory, but also threatens the long term value of our existing revenue sharing agreements. The current IRP is counter to Provincial commitments to enhance the growth of the clean energy sector within BC and provide opportunities for First Nations to participate in this economy. The IRP, as a policy of a Provincial Crown Corporation, reflects bad faith by the Province in its commitments to First Nations.
Simpcw	- BC Hydro does not have a good track record in consulting with First Nations in BC.
Splatsin	The BC Hydro IRP is a very difficult initiative to comment on as the energy industry in BC is very unpredictable. While is it is estimated that there will be more demand for power, it may not be as strong of a demand as

	previously predicted. This has a huge impact on the recommendations made in the IRP from being actually becoming reality. As you know, one of the several proposed large mines may not go ahead in the near future (or at all). Further, there may be other unexpected power demands. Also, it seems that our comments have little or no effect on the decision makers. Most of the recommendations (REV 6, Site “C” and LNG) that came out of the IRP were made public as initiatives that the province are going to move on, meanwhile we are still providing comments on the plan. Planning power development for the future has to be focused on each regions development capacity and needs. The priority needs to be for each region to identify its need for power, sources of power, and develop its own power. The majority of electricity that powers the lower mainland comes from (and runs through) Secwepemc territory. BC Hydro and the province need to recognize the Secwepemc as a partner in the energy sector. First nations that are to impacted by the recommendations of this report should be offered opportunity to participate in the energy sector through business incentives (select invite power calls to first nations, reduced inter connection costs, and preferred energy purchase rates).

Appendix 1 – Letter from BC Hydro to First Nations with Enclosures dated August 29, 2013

BC hydro
FOR GENERATIONS

August 29, 2013

Chief
First Nations
Address

Sent via mail, fax and email

BC Hydro's Integrated Resource Plan (IRP) – Written Comment Period Sept 3 to Oct 18, 2013

BC Hydro is inviting First Nations, the public, and stakeholders to provide written comments on the IRP from **September 3** to **October 18, 2013**.

The IRP is BC Hydro's long-term plan to cost-effectively meet the forecast electricity needs of its customers over the next 20 years as a result of growing population, broad economic expansion and the development of a liquefied natural gas (LNG) industry. In developing the IRP, BC Hydro consulted with First Nations, the public, stakeholders in 2011 and 2012. BC Hydro submitted its plan to government on August 2, 2013, as required under the BC *Clean Energy Act*. The IRP is now available on BC Hydro's website at www.bchydro.com/irp

In a letter to BC Hydro received on August 23, Minister of Energy and Mines Bill Bennett directed BC Hydro to undertake final consultation on the IRP before government considers its approval of the plan and to complete this consultation by October 18, 2013. While the consultation should cover the IRP in its entirety, of particular interest is feedback on aspects of the IRP that have changed since the May 2012 draft IRP and on BC Hydro's contingency plans to deal with uncertainty over the 20-year planning horizon.

The previous two rounds of consultation resulted in valuable input which is summarized in Chapter 7 of the IRP. Table 7-2 at the end of Chapter 7 provides a description of the changes in the recommended actions from those contained in the May 2012 draft IRP, a summary of input from each of the two previous rounds of consultation and BC Hydro's response to the input received to date. The copy of this letter sent by mail includes the following enclosures:

- An IRP summary document - Meeting BC's Future Electricity Needs
- Table 7-2 of Chapter 7 of the IRP (as described above)
- A First Nations Comment form.

For further information please visit the *First Nations Consultation* webpage found under *Get Involved* at www.bchydro.com/irp.

BC Hydro will review written comments it receives during the comment period and those comments will help inform the final IRP that will be submitted for government's approval by November 15, 2013.

BC hydro
FOR GENERATIONS

Thank you for your continued interest in the IRP, and we look forward to your final feedback. For further information on the IRP, to receive a First Nations written comment form by email that can be completed electronically, or for any other inquiries, please contact us at 1 877 461 0161 extension 3, or email us at 2013irp@bchydro.com.

Sincerely,

Charlie Weiler
Acting Manager, Legal and Regulatory
Integrated Resource Plan
BC Hydro, Aboriginal Relations
6911 Southpoint Drive, 10th Floor
Burnaby, BC, V3N 4X8
Phone: 1-877-461-0161 ext 3
Fax: 604-528-2822
Email: 2013irp@bchydro.com

Enclosures by mail




INTEGRATED RESOURCE PLAN



MEETING B.C.'S FUTURE ELECTRICITY NEEDS

AUGUST 2013

BC hydro

FOR GENERATIONS

ABOUT BC HYDRO

BC HYDRO IS ONE OF CANADA'S LARGEST ELECTRIC UTILITIES, SERVING ABOUT 95 PER CENT OF B.C.'S POPULATION.

BC Hydro is a Crown corporation owned by the Province of British Columbia. BC Hydro's mandate is to generate, conserve, purchase, and sell electricity to meet the needs of its customers. BC Hydro serves 95 per cent of B.C.'s population, delivering electricity safely and reliably to approximately 1.9 million customers.

As the largest electric utility in British Columbia, BC Hydro operates an integrated system with 31 hydroelectric facilities and three thermal generating plants, totalling approximately 12,000 MW of installed generating capacity. The hydroelectric facilities provide over 95 per cent of the total electricity generated and are located in the Peace, Columbia, and Coastal regions of B.C. BC Hydro's own generation is complemented by additional electricity purchased from independent power producers in the province to meet customers' annual needs.

BC Hydro delivers electricity to its customers through a network of over 75,000 km of transmission and distribution lines, approximately 300 substations, 900,000 utility poles, and 325,000 individual transformers. The system is connected to other transmission systems in British Columbia, Alberta, and Washington State, which improves the overall reliability of the system and provides opportunities for trade.

The legislation that enables BC Hydro to carry out its mandate is the *Hydro and Power Authority Act*. Under the *Utilities Commission Act*, the British Columbia Utilities Commission (BCUC) regulates public utilities, including BC Hydro.

BC HYDRO GENERATION

HYDROELECTRIC

1 Aberfeldie
2 Alouette
3 Ash River
4 Bridge River
5 Buntzen
6 Cheakamus
7 Clowhom
8 Elko
9 Falls River
10 John Hart
11 Jordan River
12 Kootenay Canal
13 Ladore
14 La Joie
15 Mica
16 Peace Canyon
17 Puntledge
18 Revelstoke
19 Ruskin
20 Seton
21 Seven Mile
22 G.M. Shrum
23 Shuswap
24 Spillimacheen
25 Stave Falls
26 Strathcona
27 Wahleach
28 Walter Hardman
29 Whatshan
30 Waneta
31 Clayton Falls

CONVENTIONAL NATURAL GAS

A Burrard
B Fort Nelson
C Prince Rupert

ABOUT THE INTEGRATED RESOURCE PLAN

BC HYDRO'S RESOURCE PLANNING PROCESS IS GUIDED BY PROVINCIAL ENERGY POLICY.

The *Clean Energy Act* requires BC Hydro to submit its Integrated Resource Plan (IRP) to the Minister of Energy and Mines by August 3, 2013, and at least every five years thereafter. The Act also requires BC Hydro to be electricity self-sufficient by 2016* and to describe how it is responding to objectives in the Act, including:

- Generating at least 93 per cent of all electricity from clean or renewable sources in B.C.**
- Ensuring rates remain among the most competitive of those charged by public utilities in North America.
- Meeting at least 66 per cent of the expected increase in demand through conservation and efficiency by 2020.
- Using clean or renewable resources to help achieve provincial GHG reduction targets.
- Encouraging economic development and the creation and retention of jobs.
- Fostering the development of First Nations and rural communities through the use and development of clean or renewable resources.

The IRP was submitted to the Minister on August 2, 2013, and includes BC Hydro's recommended actions to cost-effectively meet the forecast electricity needs of the province over the next 20 years, including the development of the liquefied natural gas (LNG) industry.

In developing the IRP, BC Hydro consulted with the public, stakeholders and First Nations in 2011 and 2012. This consultation included multiple stakeholder meetings, open houses, workshops and feedback forms. A Technical Advisory Committee of outside experts and interested parties was also engaged to provide in-depth technical input into development of the IRP.

If BC Hydro's IRP is approved by the Province, the BCUC must consider and be guided by the approved IRP when considering future BC Hydro applications for approval of the expenditures and projects required to implement the IRP.

*In February 2012, the BC Government amended the definition of self-sufficiency so that BC Hydro must be electricity self-sufficient during average water conditions. The previous definition required self-sufficiency during historically low inflows, or critical water conditions.

**Pursuant to British Columbia's Energy Objectives Regulation of July 2012, this excludes electricity to serve demand from facilities that liquefy natural gas for export by ship.

SERVING GENERATIONS

BC HYDRO'S HERITAGE SYSTEM CONTINUES TO SUPPORT BRITISH COLUMBIA'S STRONG AND GROWING ECONOMY.

Clean, abundant, and affordable electricity has been the backbone of British Columbia's economic prosperity and quality of life for generations.

From the time BC Hydro was created more than 50 years ago, it undertook some of the most ambitious hydroelectric construction projects in the world. Generations of residential, commercial and industrial customers in B.C. have benefited from these historical investments in hydroelectric facilities.

It is because of these heritage assets that British Columbians now enjoy some of the lowest electricity rates in North America, helping to provide one of the highest standards of living in the world and attracting more and more people and investment to B.C.

Today, our population is growing, our economy is expanding, and new technologies and industries are advancing every day. That's why BC Hydro is planning now to meet the future electricity needs of our customers.

In two decades, British Columbia's population is forecast to grow to nearly 5.7 million people. This means we will have to support the energy needs of 1.1 million more British Columbians and the economic activity they will generate.

BC Hydro's Integrated Resource Plan provides a long-term look at how BC Hydro can cost-effectively meet our customers' needs – by continuing to promote conservation and energy efficiency, by developing or acquiring renewable energy resources for the future, and by planning for the emerging LNG industry.

This balanced approach forms the basis of our commitment to future generations of British Columbians – just as vital decisions made long ago led to the reliable and affordable electricity we enjoy today.

UPGRADING THE SYSTEM

B.C.'S POPULATION AND ECONOMY CONTINUE TO EXPAND, BRINGING NEW BUSINESSES, RESIDENCES AND INDUSTRIAL ACTIVITIES.

British Columbia's hydroelectric system is vast and reliable, but it will not be enough to meet the electricity needs of future generations. New sources of electricity are required to meet our growing demand for clean, reliable power.

Since the 1980s, when BC Hydro's last new major hydroelectric facility was built, the province's population has grown by more than a million people. Along with this population increase, B.C.'s economy has continued to expand, bringing new businesses, residences and industrial activities.

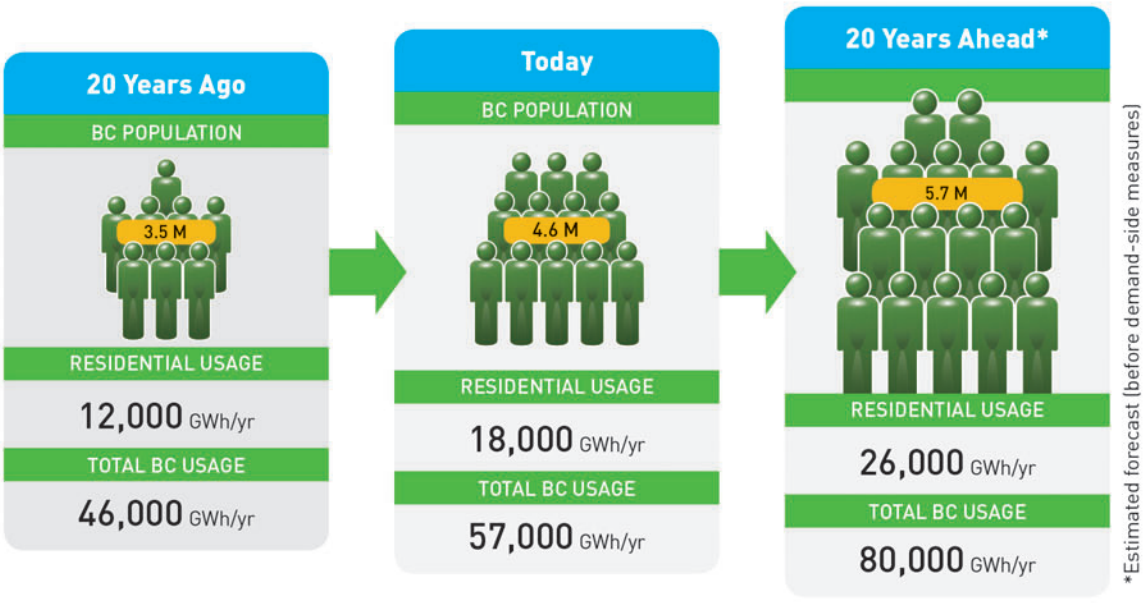
Without action, B.C.'s demand for electricity in 20 years is forecast to be 23,000 gigawatt hours per year (GWh/yr) greater than it is today – an increase of 40 per cent over what British Columbians currently use (57,000 GWh/yr). While using less electricity and using it wisely through conservation and energy efficiency is the first and best choice to meet this challenge, it will not be enough.

Based on BC Hydro's load forecast and most recent assessment of existing and committed supply-side resources, there is a need for energy resources in

four years (F2018) and a need for capacity resources in two years (F2016), before demand-side measures are taken into account.

The IRP focuses on the actions BC Hydro must take to ensure our customers continue to receive cost-effective, reliable, clean electricity for decades to come.

BC Hydro's recommended actions are described in detail in the Integrated Resource Plan. This summary document includes a list of the IRP's recommended actions on pages 12-13.



MEETING DEMAND

NEW INDUSTRIAL OPPORTUNITIES, LIKE LNG, ARE EMERGING WITH A PROMISE OF JOBS AND A DEMAND FOR RELIABLE ELECTRICITY.

New consumer products, expanding commercial enterprises and changing industrial practices have steadily evolved over the last 50 years. And while lifestyles may have changed, the graph below shows the steady increase in electricity demand from generation to generation. That trend is forecast to continue.

At the residential level, our households have multiple electronic devices and our family members carry a growing range of communication tools. Commercially, electric vehicles have moved from the design stage to designated parking spots, and our schools and businesses are "wired" like never before. In addition, new industrial opportunities are also emerging with a promise of jobs and economic development – and with them a greater demand for reliable electricity.

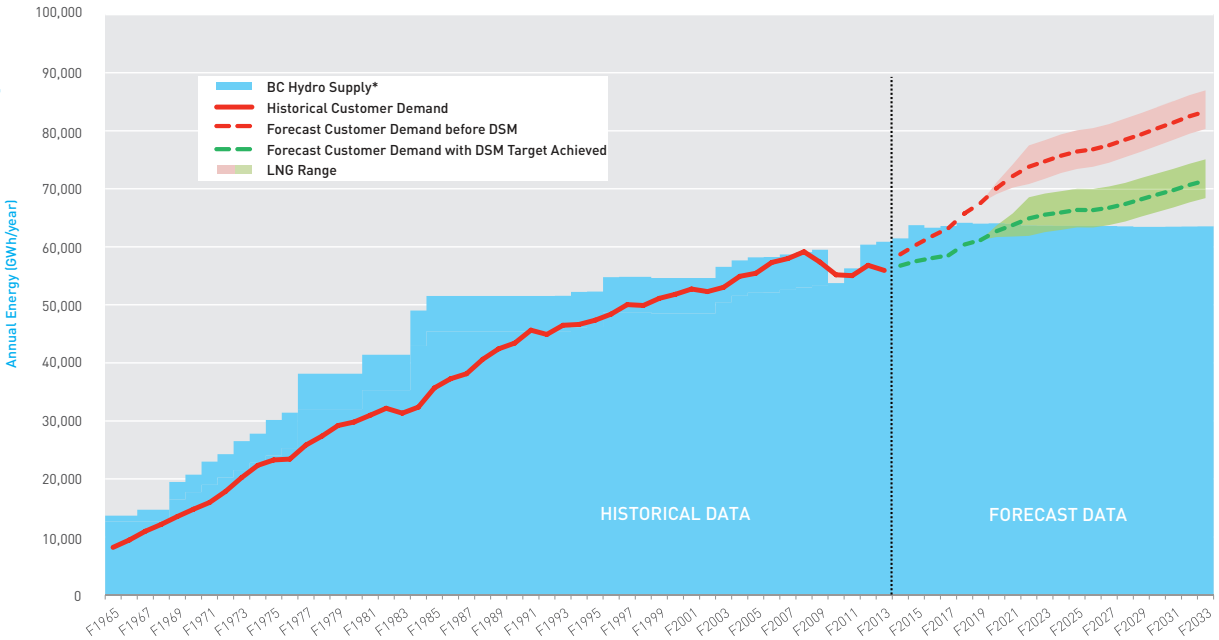
BC Hydro forecasts customers' demand for electricity will grow by 40 per cent over the next 20 years – before accounting for savings from conservation and efficiency measures. And beyond this growth in demand which is driven by population increase and broad economic expansion, liquefied natural gas will increase electricity demand further.

Forecasting B.C.'s future electricity needs is not without challenges. Many variables and uncertainties are at play, including the impacts of customer behaviours, technological shifts (such as electric vehicles), global energy markets, economic trends and climate change.

Under the *Hydro Power and Authority Act*, BC Hydro has an obligation to serve its existing residential, commercial and industrial customers and any future customers in its service area.

While existing generation resources and already planned conservation efforts will address demand growth in the short term, the IRP shows that a supply-demand gap emerges within the next 10 years.

HISTORICAL AND FORECAST FUTURE DEMAND AND BC HYDRO SUPPLY



* The drop in BC Hydro supply in F2010 is a result of removing Burrard Thermal Generating Station from the planning stack pursuant to the October, 2009 Direction 2 to the BC Utilities Commission.

SUPPORTING LNG

BC HYDRO HAS ADEQUATE SUPPLY TO MEET THE INITIAL 3,000 GWH OF LNG LOAD AND WILL PREPARE TO MEET FURTHER REQUIREMENTS AS THEY EMERGE.

Just as previous generations invested wisely in the heritage system that currently serves British Columbians with affordable and reliable electricity, new choices must be made now to support the province's unique opportunities for economic growth and prosperity.

One of the most important economic opportunities for the province is the development of B.C.'s LNG industry.

Today, there are approximately a dozen publicly announced LNG projects proposed for Kitimat, Prince Rupert and other areas of the province, including the north coast, Howe Sound and Vancouver Island.

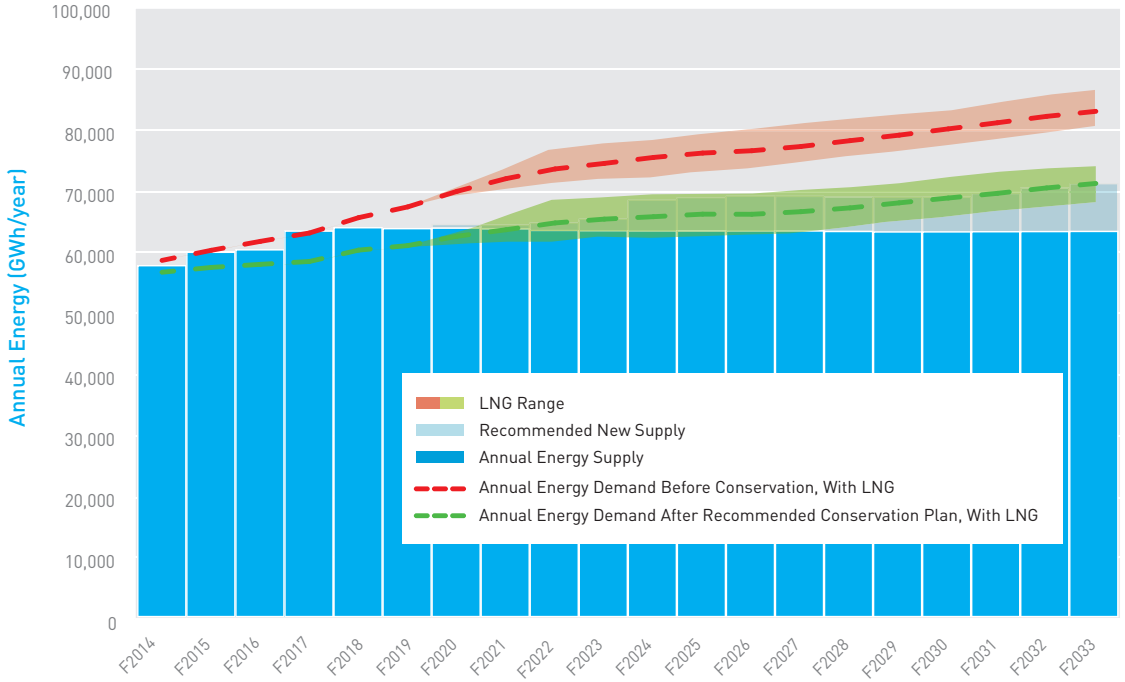
After undertaking the recommended actions in this IRP, BC Hydro will have sufficient supply to meet the initial 3,000 gigawatt hours of LNG load and will prepare to meet further LNG requirements as they emerge.

BC Hydro understands that while most LNG producers will use direct-drive natural gas turbines to run the cooling process to convert natural gas to liquid form, many are expected to take electricity for ancillary requirements, such as lighting, control systems and office requirements. Others may choose electricity for all their energy needs. As the LNG industry develops, BC Hydro will continue to support the needs of this sector.

The IRP recommends actions to support the development of the LNG industry, including reinforcing an existing 500 kilovolt transmission line from Prince George to Terrace; working with industry to explore natural gas supply options on the north coast to enhance transmission reliability and to help meet the expected load; and being prepared to acquire clean energy supply in the future if LNG needs exceed existing, contracted supply.

ENERGY SUPPLY-DEMAND OUTLOOK

Energy is the amount of electricity that can be produced or used over a period of time measured in gigawatt-hours (one GWh = one million kilowatt hours).



CONSERVING FIRST

POWER SMART ENCOURAGES RESIDENTS, BUSINESSES AND COMMUNITIES ACROSS B.C. TO TAKE A LEADERSHIP ROLE IN CONSERVATION.

Conservation is the first and best choice to meet future demand growth. Not only are such measures cost-effective and have low environmental impact, they also help reduce customers' electricity bills.

Through our Power Smart program, BC Hydro is a recognized leader in conservation, providing a range of programs and incentives to help our customers conserve, be more efficient, use power wisely, and ultimately use less. British Columbians are now saving the equivalent amount of electricity to meet the annual needs of approximately 425,000 homes.

Placing a high priority on conservation and efficiency is consistent with government policy as well as public, First Nations and stakeholder input collected from IRP consultation to date.

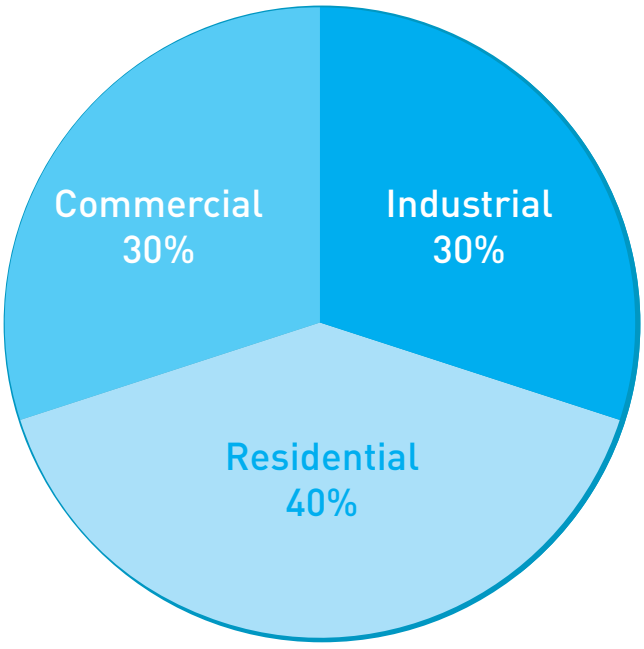
BC Hydro believes that building and maintaining a conservation culture and achieving associated savings

requires sustained effort. For this reason, the IRP recommends maintaining BC Hydro's demand-side management measures at the same level going forward as has been undertaken in recent years, and preparing to increase these measures as load increases.

LOOKING AHEAD TO F2021

BC Hydro is relying on all three customer classes to undertake demand-side management activities and meet our 7800 GWh target in F2021.

This graph illustrates the expected contribution by customer class.



POWERING TOMORROW

LIKE BC HYDRO'S OTHER HERITAGE ASSETS, SITE C WOULD PROVIDE RELIABLE AND COST-EFFECTIVE ELECTRICITY FOR GENERATIONS.

Electricity systems are inherently complex, capital intensive and require significant lead time to construct.

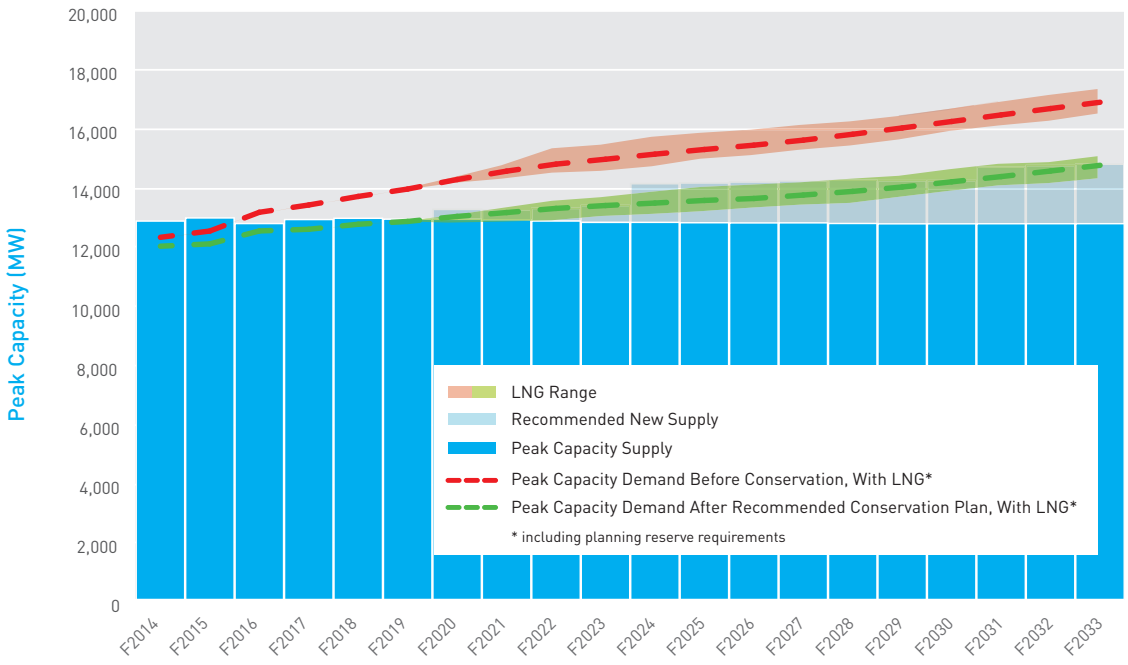
As B.C.'s population and economy continue to grow, so will our demand for electricity. And while BC Hydro continues to upgrade the capacity, safety and reliability of our aging facilities, even these important investments will not be sufficient to meet future demand.

To meet that demand, the IRP recommends building Site C, a proposed third dam and generating station on the Peace River, which would provide cost-effective, reliable and renewable electricity for generations.

Analysis of alternative portfolios in the IRP shows that Site C provides the best combination of financial, technical, environmental and economic development attributes and is the most cost-effective way to meet the long-term need for energy and dependable capacity.

PEAK CAPACITY SUPPLY-DEMAND OUTLOOK

Peak capacity refers to the maximum amount of electricity that BC Hydro can supply to meet peak customer demand in the province at any point in time. Typically, demand peaks at dinner time on the coldest day of the year.



MANAGING RESOURCES

BC HYDRO IS FOCUSED ON MANAGING COSTS TO KEEP ELECTRICITY RATES AMONG THE LOWEST IN NORTH AMERICA.

BC Hydro is fortunate to have several clean energy resource options to help meet the electricity needs of our customers, including biomass facilities, run-of-river hydro and wind projects.

Independent power producers (IPP) have been bringing value to BC Hydro's system since the late 1980s, and they will continue to have an important role in providing clean, renewable electricity for decades to come.

BC Hydro currently has 128 Electricity Purchase Agreements (EPAs) with IPPs, of which 81 are in operation providing about 20 per cent of BC Hydro customers' electricity needs. These EPAs provide clean, renewable power for the long term.

As BC Hydro plans to meet the future needs of customers for decades to come, it also needs to stay focused on keeping electricity rates competitive with those charged by other public utilities in North America.

The IRP recommends managing the costs associated with BC Hydro's current energy portfolio of EPAs and selecting the most cost-effective plan to meet customers' needs within the context of the *Clean Energy Act*. As part of this cost-management effort, the IRP recommends reviewing IPP projects not yet in commercial operation and renewing cost-effective EPAs that provide benefits such as enhanced system reliability and economic activity.

PLANNING FOR THE UNEXPECTED

BC HYDRO WILL CONTINUE TO EXPLORE AND ADVANCE CAPACITY RESOURCE OPTIONS FOR CONTINGENCY PURPOSES.

BC Hydro's long-term planning also takes account of future uncertainties. As part of good utility practice, BC Hydro must have contingency plans in place in case electricity demand grows faster than forecast, or if planned resources don't become available when expected. If more large projects than expected come on line (e.g., LNG facilities or mines), or efficiency and conservation measures do not achieve their intended results, the need for new supply may be advanced.

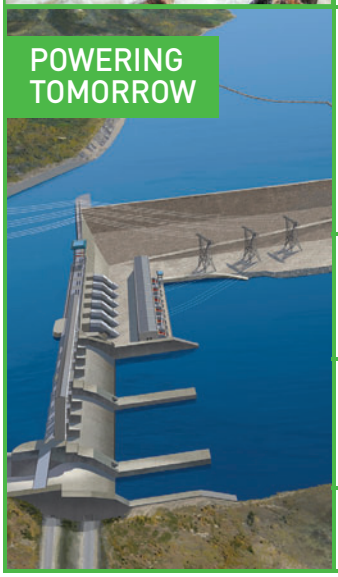
Ensuring BC Hydro can meet future peak capacity requirements is a specific objective because capacity resources must be available the instant they are needed. New, clean capacity resources are more limited than clean energy resources that could be secured on relatively short notice through a procurement process.

To ensure that contingency plans are in place, the IRP recommends continuing to explore and advance capacity resource options, including:

- Advancing the Revelstoke Generating Station Unit 6 Resource Smart project to preserve its earliest in-service date of F2021 with the potential to add up to 500 megawatts of peak capacity.
- Advancing GM Shrum Generating Station upgrades with the potential to gradually add up to 220 megawatts of peak capacity starting in F2021.
- Working with industry to explore natural gas supply options to reduce their potential in-service lead time and to develop an understanding of where and how to site such resources, should they be needed.

IRP RECOMMENDED ACTIONS

This section summarizes the recommended actions of the IRP. These actions do not, by themselves, commit BC Hydro to any specific projects identified over the planning period. Specific projects, such as DSM and the construction of generation facilities and transmission lines, may have additional consultation and approval requirements. Readers are referred to the IRP (www.bchydro.com/irp) for a complete review of the recommended actions.

		RECOMMENDED ACTIONS
 CONSERVING FIRST	1. Moderate current spending and maintain long-term target	Target expenditures of $445 million on conservation and efficiency measures during the fiscal years 2014 to 2016. Prepare to increase spending to achieve 7,800 gigawatt-hours per year in energy savings, and 1,400 MW in capacity savings, by F2021.
	2. Pursue DSM capacity conservation	Implement a voluntary industrial load curtailment program from F2015 to F2018 to determine how much capacity savings can be acquired and relied upon over the long term.
	3. Explore more codes and standards	Explore additional opportunities to leverage more codes and standards to achieve conservation savings at a lower cost and to gain knowledge and confidence about their potential to address future or unexpected load growth.
 MANAGING RESOURCES	4. Optimize existing portfolio of IPP resources	Optimize the current portfolio of IPP resources according to the key principle of reducing near-term costs while maintaining cost-effective options for long-term need.
	5. Investigate customer incentive mechanisms	Investigate incentive-based pricing mechanisms over the short term that could encourage potential new customers and existing industrial and commercial customers looking to establish new operations or expand existing operations in BC Hydro's service area.
 POWERING TOMORROW	6. Continue to advance Site C	Build Site C to add 5,100 GWh/year of annual energy and 1,100 MW of dependable capacity to the system for the earliest in-service date of F2024 (for all six generating units) subject to: environmental certification; fulfilling the Crown's duty to consult, and where appropriate, accommodate Aboriginal groups; and Provincial Government approval to proceed with construction.
	7. Pursue bridging options for capacity	Fill the short-term gap in peak capacity with cost-effective market purchases first and power from the Columbia River Treaty second.
	8. Advance reinforcement along existing GMS-WSN-KLY 500 kV transmission line	Advance reinforcement of the existing GM Shrum-Williston-Kelly Lake 500 kV transmission lines to be available by F2024.
	9. Reinforce South Peace transmission	Review alternatives for reinforcing the South Peace Regional Transmission Network to meet expected load.

	RECOMMENDED ACTIONS
10. Explore natural gas-fired generation for the north coast	Working with industry, explore natural gas supply options on the north coast to enhance transmission reliability and to meet the expected load.
11. Explore clean energy supply options, if LNG demand exceeds available resources	Explore clean or renewable energy supply options and be prepared to advance a procurement process to acquire energy from clean power projects, as required to meet LNG needs that exceed existing and committed supply.
12. Advance reinforcement of the transmission line to Terrace	Advance reinforcement of the existing 500 kV transmission line from Prince George to Terrace, which includes development of three new series capacitor stations and improvements in the existing BC Hydro substations to be available by F2020.
13. Horn River Basin and northeast gas industry	Continue discussions with B.C.'s northeast gas industry and undertake studies to keep open electricity supply options, including transmission connection to the integrated system and local gas-fired generation.

	RECOMMENDED ACTIONS
14. Advance Revelstoke 6 Resource Smart project	Advance the Revelstoke Generation Station Unit 6 Resource Smart project to preserve its earliest in-service date of F2021 with the potential to add up to 500 megawatts of peak capacity.
15. Advance GM Shrum Resource Smart project	Advance Resource Smart upgrades to GM Shrum Generating Station Units 1–5 with the potential to gradually add up to 220 MW of peak capacity starting in F2021.
16. Investigate natural gas generation for capacity	Working with industry, explore natural gas supply options to reduce their potential lead time to in-service and to develop an understanding of where and how to site such resources, should they be needed.
17. Investigate Fort Nelson area supply options	Investigate procurement options to serve future Fort Nelson load.

For more information about BC Hydro's Integrated Resource Plan, please go to: www.bchydro.com/irp

BC Hydro

Corporate Office
333 Dunsmuir Street
Vancouver, B.C. V6B 5R3

bchydro.com

BC hydro
FOR GENERATIONS

GDS13-278

Table 7-2 BC Hydro Response to Consultation Input from Spring 2011 and Spring/Summer 2012

TOPIC: CONSERVE - REDUCE ENERGY CONSUMPTION & ENCOURAGE LESS CONSUMPTION DURING PEAK DEMAND PERIODS			
	2011 CONSULTATION QUESTION (March to April 2011) Consultation participants were asked to indicate their level of agreement with a greater conservation and efficiency approach.	**2012 CONSULTATION QUESTION (May to July 2012)** Consultation participants were asked to indicate their agreement with the following recommended actions to conserve more by: • Increasing our energy savings target to 9,800 gigawatt hours per year by 2020 (1,000 gigawatt hours more than the current plan) through conservation and efficiency programs, incentives and regulations; • Exploring more codes, standards and rate options for savings beyond the annual target of 9,800 GWh/year • Encouraging less consumption during peak demand periods by pursuing voluntary conservation programs that encourage residential commercial and industrial customers to reduce energy consumption during peak periods	**COMPARISON May 2012 Draft Recommended Action Vs. Current Recommended Action** • BC Hydro changed the DSM target Recommended Action from pursuit of Option 3 (defined as 9,800 GWh/year by F2021 in May 2012) to Option 2 (7,800 GWh/year of energy savings, with 1,400 MW of associated capacity savings, by F2021). BC Hydro also recommends targeting expenditures during F2014, F2015 and F2016 of approximately $175 million, $145 million and $125 million respectively. • BC Hydro amended the second DSM Recommended Action by removing the reference to rate options, but would continue to explore more codes and standards for savings beyond Option 2 levels • The third Recommended Action remains unchanged
Public Input	• A strong majority (75 per cent) of participants agreed with the Greater Conservation and Efficiency approach to meeting future demand for electricity in B.C • Support for the approach was mainly attributed to BC Hydro's focus on conservation, energy efficiency, and alternative forms of power generation • Some stakeholder meeting participants suggested that more education and greater incentives are required to encourage energy conservation • A few stakeholders cautioned BC Hydro against encouraging too many codes and standards, preferring that BC Hydro provide greater incentives • A few stakeholders expressed concern about greater conservation and efficiency as they believe it puts a disproportionately higher burden on rural communities	• A large majority of participants strongly agreed with all three recommended actions related to conservation (80 per cent, 72 per cent and 82 per cent agreement, respectively). • Reasons for support included that conservation is the best choice overall as we are wasteful with resources, new building codes and regulations will help conservation, there is a need to consider all options, and incentives to conserve will help • While many participants expressed a desire to maximize conservation by creating more initiatives and programs, including more municipal programs, some questioned whether BC Hydro's goals are achievable • Some participants suggested time-of-use rates as a means of encouraging conservation, and encouraged BC Hydro to recommend them to the Government. However, some participants had reservations and suggested that BC Hydro should be transparent if it was considering time-of-use rates • BC Hydro was urged to consider programs that did not place an undue burden on those who may not be able to participate for economic reasons.	**RESPONSE TO CONSULTATION INPUT** • BC Hydro acknowledges consultation participants' strong preference for conservation and efficiency to address future growth in electricity demand • Consistent with this preference, conservation remains BC Hydro's first strategy to address growing demand for electricity. Given BC Hydro has sufficient energy in the near term to meet customers' requirements, BC Hydro recommends targeting conservation expenditures of $445 million in the F2014 to F2016 period, while maintaining the ability to ramp up conservation initiatives, and associated energy savings when needed. This approach minimizes short term costs, while preserving the flexibility to ramp-up programs and continuing to maintain customer and industry partner commitments to conservation over the long term

TOPIC: CONSERVE - REDUCE ENERGY CONSUMPTION & ENCOURAGE LESS CONSUMPTION DURING PEAK DEMAND PERIODS			
First Nations Input	• There was widespread support among First Nations participants for greater conservation and efficiency, however, a concern over the cost of conservation was a recurring theme • Many First Nations expressed concern over the rate impact of conservation and efficiency initiatives, and were concerned that rates structures may not account for the unique circumstances that affect electricity consumption in First Nation communities • Many First Nations identified a need for significant energy efficient upgrades to First Nations homes and buildings, but were concerned that these upgrades would be unaffordable • The BCFNEMC indicated that Remote Community Electrification must be a first priority before efficiency and conservation can be considered in these off-grid communities • The BCFNEMC indicated that First Nations should be involved in DSM program design to ensure they are relevant to local conditions and First Nations can access them and take advantage of possible savings. The FNEMC had specific recommendations on addressing housing issues as well as coordination with other government goals and objectives.	• First Nations were largely supportive of the recommended actions to conserve more provided that conservation programs are accessible to First Nations • The BCFNEMC indicated support for conservation provided that: programs are based on incentives rather than penalties; program design takes into account the circumstances of rural and off-grid communities; the need for business and economic development on First Nations lands is recognized; and accessibility for lower or fixed income people is ensured. In addition, it was recommended that First Nations should be directly involved in program design and delivery. • There was a concern among some First Nations workshop participants that, from a sustainability perspective, BC Hydro was not going far enough with conservation	• In response to consultation feedback regarding customers' ability to respond to conservation signals, any support that BC Hydro may consider for mandatory conservation methods (e.g., conservation rates/ codes and standards) would be approached cautiously • Consistent with feedback from the public and TAC, BC Hydro will pursue conservation programs aimed at capacity savings. Voluntary conservation programs are an important, proactive response to the need for more clean capacity. BC Hydro will seek to confirm that these customer-oriented programs reliably achieve desired results. • BC Hydro acknowledges that First Nations have unique needs and challenges when it comes to taking advantage of conservation rates. The exploration of rate options beyond Option 3 levels has been removed from the recommendation.
TAC Input	• Five of the six members expressed support for DSM. Three of the TAC members expressed support for cost effective DSM, with two of those further wanting all possible cost effective DSM to be implemented. In general, there was interest in how BC Hydro defines cost effectiveness and a desire to look at how cost effectiveness is measured. • Two members were in support of more aggressive DSM, and were willing to embrace a greater degree of uncertainty • One TAC member did not support BC Hydro assuming a role of pursuing specially designed conservation rates and thought BC Hydro was taking on a role that was not appropriate	• TAC members generally supported the conservation recommendations. One member was sceptical that the DSM target level would be achievable and one member thought BC Hydro should pursue electric load avoidance as a DSM measure • Of the supporting members, three suggested that BC Hydro should pursue even more conservation and efficiency with accelerated timelines. It was observed that BC Hydro should pursue additional savings even if additional load does not materialize, as the current plan does not meet the test of pursuing all cost-effective and achievable conservation and efficiency levels. It was suggested BC Hydro adjust the plan to comply with the 66 per cent target. • TAC members expressed differing views on the risks BC Hydro places on potential conservation and efficiency shortfalls, with some members stating that these risks are overstated and another questioning the certainty of the existing targets	

TOPIC: BUILD THE SITE C CLEAN ENERGY PROJECT			
	2011 CONSULTATION QUESTION (March to April 2011) Consultation participants were asked to indicate their level of agreement with three example portfolios: • One portfolio was comprised of all renewable energy sources, excluding Site C • The second portfolio was comprised of all renewables, including Site C • The third portfolio was comprised of renewables, Site C and gas-fired generation From this input, views on the role of Site C in serving B.C.'s electricity needs were gathered. Please see the Buy section for a summary of comments received on Portfolio 1 and the Natural Gas section for comments received on Portfolio 3.	**2012 CONSULTATION QUESTION (May to July 2012)** Consultation participants were asked to indicate their agreement with the following recommended actions to build and reinvest more: • BC Hydro recommended building Site C to add 5,100 GWh/year of average energy and 1,100 MW of dependable capacity to the system for the earliest in-service date, subject to environmental certification and fulfilling the Crown's duty to consult and, where appropriate, accommodate Aboriginal groups	**COMPARISON** **May 2012 Draft Recommended Action Vs. Current Recommended Action** Recommended action is unchanged. except for an adjustment of the in-service date of Site C from fiscal 2022 to 2024.
Public Input	• Portfolio 2, which was a mix of renewables, including Site C, received support from 50 per cent of participants, and was opposed by 40 per cent • Some stakeholders in Fort St. John strongly opposed inclusion of Site C in any resource portfolio and suggested that natural gas could be a superior alternative, given its abundance in the Peace River region and its low cost relative to other resources	• 51 per cent of public consultation participants agreed with the recommendation to build Site C, while 40 per cent disagreed. • Reasons given for support included that it is the best option, it is a clean energy option, it makes economic sense, and they agree but have concerns about the environmental impact • Reasons given for opposition to building Site C included that there are other/better options available, they are concerned about the environmental impacts, and that conservation is better.	**RESPONSE TO CONSULTATION INPUT** • BC Hydro acknowledges the mixed views on Site C held by participants in the IRP consultation. • BC Hydro understood that most First Nations participating in the consultation on the IRP were reluctant to express views on Site C, and instead deferred to the First Nations communities located in the area of the proposed Site C project. BC Hydro also acknowledges that First Nations participants in the consultation on the IRP that are local to the proposed Site C project area expressed significant opposition to Site C. BC Hydro is continuing consultation with Aboriginal groups whose interests may be affected by Site C and in some cases is currently negotiating Impact Benefit Agreements. • BC Hydro continues to recommend building Site C to add 5,100 GWh/year of average energy and 1,100 MW of dependable capacity to the system for the earliest in-service date of F2024, subject to: environment certification; fulfilling the Crown's duty to consult and where appropriate accommodate Aboriginal groups; and Provincial Government approval to proceed with construction. • BC Hydro recommends building Site C because analysis of alternative portfolios shows that Site C provides the best combination of financial, technical, environmental and economic development attributes and is the most cost-effective way to meet the need for energy and dependable capacity in the following decade. Site C would benefit from storage and regulation provided by upstream facilities; for example, it would generate approximately 35 per cent of the annual energy produced at the W.A.C. Bennett Dam, with five percent of the reservoir surface area.
First Nations Input	• Among First Nations workshop participants, there was substantial opposition to Site C. Many First Nations that were not from the area of the proposed Site C project expressed solidarity with the affected First Nations and indicated that the First Nations affected by the Site C dam should be meaningfully consulted and accommodated	• First Nations in most regions were reluctant to express their own views in relation to Site C, and generally stated that they supported whatever position First Nations local to the proposed Site C area took in relation to the project. First Nations workshop participants local to the proposed Site C area expressed significant opposition to Site C • There was a perception among some First Nation workshop participants that BC Hydro considered Site C a "done deal". It was suggested that there was a bias in favour of developing Site C, because of what was viewed as a long-standing B.C. Government policy of maximizing the hydroelectric potential of the Peace and Columbia rivers, and the prioritization of economic values over other values. There was a view that these drivers have now left BC Hydro with a lack of alternatives to Site C, and that the recommended action to proceed with Site C makes no effort to address, or is even dismissive of, values that cannot be measured using only economic indicators. • The BCFNEMC reported that it does not support the inclusion of Site C in the IRP at this time, as its inclusion is inconsistent with the concept that the IRP is to provide overall direction, but not determine individual projects. The BCFNEMC said it is concerned that an approved IRP will be subsequently used by BC Hydro or Government to justify particular projects and reduce or eliminate the rigorous scrutiny that is normally required.	

TOPIC: BUILD THE SITE C CLEAN ENERGY PROJECT			
TAC Input	• Several TAC members acknowledged the value of the energy and capacity Site C offers however they would like to see more information before providing input, stating it is premature to express or imply acceptance of Site C, pending the results of environmental assessment, First Nations consultation, updated cost estimates, the Minister's review of BC Hydro and the portfolio modelling.	• TAC members generally questioned the prudency (for different reasons) of BC Hydro's recommendation to build Site C for its earliest in-service date. Two members questioned the need for Site C at its earliest in-service date given future load uncertainties, while others thought that more analysis on Site C was required to establish its cost-effectiveness (e.g., against other options such as natural gas-fired generation, increased DSM, and wind). • Two members stated that a decision on Site C is premature until First Nations concerns are adequately addressed.	• Although included as a recommended action in the IRP, Site C continues to be subject to approval and consultation requirements. BC Hydro is continuing consultation with Aboriginal groups, stakeholders and the public on Site C. Site C is currently in the environmental and regulatory review stage, which includes a harmonized federal and provincial environmental assessment process, including a joint review panel process.

TOPIC: BUILD AND REINVEST - RESOURCE SMART OPPORTUNITIES			
	2011 CONSULTATION QUESTION (March to April 2011) No questions about the topic were asked in 2011.	**2012 CONSULTATION QUESTION (May to July 2012)** Consultation participants were asked to indicate their agreement with the following Resource Smart Opportunities: • Begin work to allow the sixth generating unit at Revelstoke Generating Station to be built by 2018, adding 500 megawatts of peak capacity to the BC Hydro system • Continue to investigate and advance cost-effective Resource Smart projects to utilize the remaining untapped capacity in BC Hydro's existing hydroelectric system	**COMPARISON** **May 2012 Draft Recommended Action Vs. Current Recommended Action** • Revelstoke Unit 6 would continue to be advanced for its earliest in-service date, but as a contingency resource. • BC Hydro also recommends advancing GM Shrum Generating Station upgrade project Units 1-5 Capacity Increase, which is a Resource Smart project with the potential to gradually add up to 220 MW of peak capacity starting in F2021, as a contingency resource
Public Input		• A majority of public participants (80 per cent) agreed with BC Hydro's recommendation to begin work to build the sixth generating unit at Revelstoke Generating Station. Those that disagreed with this action felt that there were better options, including conservation. • The majority of public participants (83 per cent) agreed with the recommendation that BC Hydro should continue to investigate cost-effective Resource Smart projects to utilize untapped capacity within BC Hydro's existing system • Those that agreed with the draft recommendation stated that Resource Smart is a good use of existing infrastructure and it makes sense	**RESPONSE TO CONSULTATION INPUT** • In line with strong support from consultation participants, BC Hydro is recommending advancing two Resource Smart projects through planning to preserve their earliest in-service-dates for contingency purposes • The key Resource Smart projects identified include a proposed GM Shrum Generating Station upgrade project, which would add up to 220 megawatts of peak capacity (called GMS Units 1-5 Capacity Increase), and Revelstoke Generating Unit 6, which has the potential of adding about 500 megawatts of peak capacity • Both Resource Smart projects add capacity with limited energy gains to the system. BC Hydro's capacity Load Resource Balance has changed since May 2012. BC Hydro compared Site C to portfolios that included Revelstoke Unit 6 and GMS Units 1-5 Capacity Increase and was found to be cost-effective. Given Site C is able to provide both cost-effective energy and capacity when it will be needed in the 2024 timeframe, these two Resource Smart projects are currently being advanced from a contingency planning perspective and also continue to be available to provide additional capacity in the future beyond Site C. • Resource Smart solutions, such as GMS Units 1-5 Capacity Increase and Revelstoke Unit 6, provide cost-effective capacity in a manner that has fewer impacts than other capacity alternatives that aren't able to take advantage of existing infrastructure in this way
First Nations Input		• First Nations workshop participants provided limited feedback on the recommended actions relating to Resource Smart. Some First Nations participants indicated that they were reluctant to provide feedback without more information. • Some First Nations disagreed with BC Hydro's characterization of the Revelstoke Unit 6 project as having no or minimal impact • There was a perception that BC Hydro's IRP places undue reliance on projects such as Revelstoke Unit 6 that are not yet approved • The BCFNEMC supports the focus on Resource Smart options, including the addition to the Revelstoke plant. To the extent such options increase efficiency and are cost-effective, they consider them a preferred approach to new construction, minimizing new land and environmental impacts, and maximizing overall system efficiency.	
TAC Input		• The TAC members who provided comments on the Resource Smart topic (four of seven submissions) were in support of the recommended actions, because of the relative cost-effectiveness and low environmental impact	

TOPIC: COMBINE READILY AVAILABLE RESOURCES TO MEET THE SHORT-TERM CAPACITY GAP			
	2011 CONSULTATION QUESTION (March to April 2011) No questions about the topic were asked in 2011.	**2012 CONSULTATION QUESTION (May to July 2012)** Consultation participants were asked to indicate their agreement with combining readily available resources to meet a short-term capacity gap by: • Filling the short-term peak capacity gap from 2015 to 2020 with a combination of market purchases first, power from the Columbia River Treaty second, and extending the existing backup use of Burrard Thermal Generating Station, if required and as authorized by regulation.	**COMPARISON May 2012 Draft Recommended Action Vs. Current Recommended Action** • Recommended Action is unchanged, except BC Hydro is forecasting a reduced two-year reliance (F2022 to F2023) for about 200 MW
Public Input		• 57 per cent of feedback from respondents agreed with the recommendation to fill the short-term peak capacity gap with a combination of market purchases first, power from the Columbia River Treaty second and extending the existing backup use of Burrard, if required and authorized by regulation • Some of those that agreed encouraged the use of the Columbia River Treaty, and Burrard Thermal Generating Station. They also cautioned about the cost-effectiveness of this plan and expressed concerns about buying power from the market rather than being self-sufficient. • Of those that disagreed, some opposed the use of Burrard and thought that other options should be explored • Some public participants felt that conservation is a better option	**RESPONSE TO CONSULTATION INPUT** • Because of the short-term need for capacity, BC Hydro recommends meeting the short-term peak capacity gap with cost-effective market purchases first, and power from the Columbia River Treaty second. Burrard continues to be available in accordance with the CEA for emergency backup purposes. Given the expected gap in peak demand is lower than originally forecast, BC Hydro is no longer including Burrard as a third option to fill this short term gap. Removal of this third option also reflects consultation participants' mixed views on the use of Burrard. • BC Hydro recommends these short-term bridging options because they are more cost-effective than constructing alternatives that are initially required for only a short period. • Reflecting some consultation participants' concerns that other options should be explored, BC Hydro is also recommending pursuing capacity savings from conservation initiatives that could see results in the near or mid-term.
First Nations Input		• There was limited First Nations feedback on the recommended actions to fill the short term capacity gap • In general, the BCFNEMC reported it supports these options, agreeing with use of available power from the Columbia River Treaty, and with back-up use of the Burrard as needed. The BCFNEMC also reported that the purchase of additional power on an interim basis is supportable, recognizing that it is likely unavoidable under current demand projections. • The BCFNEMC reported that it questions, in light of overall commitments to green energy, why additional market purchases would be made ahead of using power from the Columbia River Treaty. The BCFNEMC noted that the purchases would most likely come from thermal, emission-generating sources, which would result in the displacement of GHG emissions to neighbouring jurisdictions rather than result in real reductions.	
TAC Input		• TAC members generally supported the actions to meet the short-term capacity gap, with a few caveats: – Two members would like to see Burrard's future more clearly articulated, albeit with divergent views on what the future role should be – One member wanted the cost of additional transmission to repatriate the Columbia River Treaty downstream benefits to be examined • One member supported increasing the use of bridging options in light of the large uncertainties with the load forecast and therefore the potential risk of stranded assets	

TOPIC: TRANSMISSION PLANNING			
	2011 CONSULTATION QUESTION (March to April 2011) Consultation participants were asked to indicate their level of agreement with a proactive approach to transmission planning which plans the transmission system in anticipation of future need.	**2012 CONSULTATION QUESTION (May to July 2012)**	
Public Input	• About half of participants agreed with the proactive approach to planning transmission, while just over one quarter disagreed with it and about one-fifth neither agreed nor disagreed • Support for the proactive approach stemmed from opportunities to realize long term savings, reduce environmental impacts and promote economic development through proactive thinking • Concerns were raised around the risks of investing based on uncertain forecasts, they thought there was a need to encourage more regional power generation, and that ratepayers should not bear transmission costs for private enterprise • Some stakeholder meeting participants expressed a desire for BC Hydro to consider offsetting transmission costs by locating electricity generation closer to demand • A few participants encouraged BC Hydro to consider increasing opportunities for communities to partner in the ownership of electricity generation and transmission projects	No questions were asked about transmission planning in this context in 2012. Questions about specific transmission projects to serve the North Coast were asked and are addressed under the “Transmission and Supply to LNG Industry” section.	**RESPONSE TO CONSULTATION INPUT** • For generation-driven transmission, the IRP analysis showed only marginal economic and environmental benefits associated with prebuilding in areas with high generation potential. However, the assessment entails significant uncertainty with regards to the assumptions on generation potential. Therefore BC Hydro may undertake more detailed assessments as part of future acquisitions processes where the development potential in a specific region is better understood. This is consistent with cautions expressed by consultation participants around risking investments based on uncertain forecasts. • BC Hydro acknowledges the importance of early consultation with First Nations on transmission infrastructure.
First Nations Input	• While generally supportive of a proactive approach to transmission planning, First Nations emphasized that this must be combined with early First Nations consultation and accommodation • The BCFNEMC was very supportive of a proactive approach to transmission planning, noting that it is possible to do so without fully committing to or actually constructing ahead of established triggers or thresholds, which reduces the risks of stranded asset investments • The BCFNEMC noted that transmission disproportionately affects First Nations and rural lands, while serving the needs or interests of large demand centres elsewhere in the province, highlighting the need to involve First Nations at all levels of transmission planning • The BCFNEMC indicated it favoured local First Nations involvement in smaller scale and distributed generation facilities, which may require proportionately less transmission than large scale facilities. (see related input and feedback under the Buy-Energy from B.C.-based Clean Energy Producers)		
TAC Input	• TAC members stated that a proactive approach to transmission planning is complex and should balance BC Hydro’s ability to serve potential customer loads with the potential economic consequences of overbuilding transmission • Some members stated that proactive transmission planning is key due to the longer lead time, expense, permitting and consultation required. However, TAC members were clear to state that they support proactive planning and not necessarily proactive building • Others stated that they needed more analysis		

TOPIC: BUY – ENERGY FROM B.C.-BASED CLEAN ENERGY PRODUCERS			
	2011 CONSULTATION QUESTION (March to April 2011) Consultation participants were asked to indicate their level of agreement with three example portfolios: • one was comprised of all renewable energy sources, excluding Site C; • the second was comprised of all renewables, including Site C • the third portfolio was comprised of renewables, Site C and gas-fired generation From this question, views on buying energy from B.C.-based producers were gathered. Please see the Site C section for a summary of comments received on Portfolio 2 and the Natural Gas section for comments received on Portfolio 3.	**2012 CONSULTATION QUESTION (May to July 2012)** Consultation participants were asked to indicate their agreement with the recommended action to develop energy procurement options to acquire up to 2,000 gigawatt hours from clean energy producers for projects that would come into service in the 2016 to 2018 time period. It was noted that final decisions on the timing and the volume of energy would be made once there was more certainty regarding new electricity loads.	**COMPARISON May 2012 Draft Recommended Action Vs. Current Recommended Action** • BC Hydro is no longer intending to acquire 2,000 GWh/year of clean or renewable energy resources that would come into service in the 2016 to 2018 time period • BC Hydro would explore clean or renewable energy supply options and be prepared to advance a procurement process to acquire energy as required to meet LNG needs that exceed existing and contracted energy supply
Public Input	• Portfolio 1, the example electricity generation portfolio which included all renewable power but excluding Site C, received the strongest public agreement via feedback forms. 58 per cent agreed with this approach, while 30 per cent disagreed. Respondents who supported the approach referenced alternative energy sources, the perceived smaller environmental impact and the exclusion of Site C as reasons. • Those that opposed the renewable portfolio (Portfolio 1) referenced concerns over run-of-river projects, IPPs more generally, the exclusion of Site C and rate implications	• The majority (64 per cent) of public participants agreed with the recommendation to develop energy procurement options to acquire up to 2,000 gigawatt hours of clean energy from clean energy producers for projects that would come into service between 2016 and 2018 • Stated reasons for agreement included clean/renewable energy is best, it is wise to develop multiple energy sources, and this is logical/makes sense • Reasons for disagreement included concerns about cost and opposition to power being purchased from Independent Power Producers. Some individuals specifically opposed run-of-river power projects • A key theme at stakeholder meetings was general interest in the role that IPPs play in relation to the BC Hydro system. In particular, they were interested in the cost of buying power from IPPs compared to the cost of hydroelectricity, the procurement process for obtaining more energy, and the future reliance on IPPs • In addition some stakeholder meeting participants were interested in the use of more clean energy resources, and had questions and suggestions regarding geothermal, run-of-river, solar, tidal and wave-generated power • Some public participants expressed a desire for greater regional and local generation utilizing energy sources closer to users, partly to offset any electricity losses through long transmission routes	**RESPONSE TO CONSULTATION INPUT** • BC Hydro acknowledges consultation participants' support for clean or renewable energy from B.C.-based energy producers, and many participants' interest in more local generation solutions. BC Hydro also acknowledges many First Nations interest in greater involvement in clean or renewable energy development. (For further details on First Nations participation in clean or renewable energy, please see Table 1-1 in Chapter 1, which describes the IRP response to British Columbia's *CEA* energy objective to foster development in First Nations and rural communities through the use and development of clean or renewable resources). • Based on the updated load forecast and energy load resource balance, BC Hydro has adequate supplies of energy in the near and mid-term • Since BC Hydro has sufficient clean or renewable energy to meet domestic requirements, additional acquisition processes are not being recommended at this time. Further, BC Hydro recommends optimizing the current portfolio of IPP resources according to the key principle of

TOPIC: BUY – ENERGY FROM B.C.-BASED CLEAN ENERGY PRODUCERS			
First Nations Input	• Many First Nations were reluctant to comment on portfolio preferences without knowing how the IRP would ultimately affect their individual communities. • Although not expressing support for any particular example portfolio, in general First Nations participants preferred the development of clean and renewable resources with the exception of Site C. *(More specific input from Round 1 on Site C is set out in the Site C section above.)* • Like some stakeholders and TAC members some First Nations indicated a preference for certain types of resources that appeared excluded from the example portfolio, including geothermal, solar, wave and tidal • In addition to procurement and employment opportunities associated with independent power projects, many First Nations are seeking revenue sharing or ownership interests in proposed projects • Many First Nations expressed interest in community based electricity generation. There was also interest expressed in a regional approach to portfolio planning	• Most First Nations workshop participants that expressed an opinion on the recommended action to buy more energy were supportive. There was substantial interest in greater First Nations involvement in clean or renewable energy development, but participants identified significant barriers to greater involvement. First Nations felt strongly that BC Hydro should be doing more to help First Nations overcome these barriers and become full participants in clean or renewable energy development. • Several First Nation workshop participants expressed a preference for local generation rather than transmission to/from other regions • Some First Nation participants were of the view that IPPs should be evaluated differently depending on the intended destination of power • The BCFNEMC was also supportive of clean energy and privately owned and developed generation. The BCFNEMC identified important conditions that are essential to First Nations support for specific projects and a successful call for more IPP generation, specifically: (1) there should be First Nations opportunities for participation, including a possible preferential call for First Nations projects; (2) First Nations rights and title must be fully respected and mini-staking rushes for micro-hydro sites must be avoided, and unused water licenses should revert back to the Province or to local First Nations; and (3) the call process should be designed to encourage rather than discourage First Nations participation.	reducing near-term costs while maintaining cost effective options for long-term need. BC Hydro is committed to honouring IBAs with First Nations, and some of the IBAs involve negotiation of EPAs for energy generation projects. Note that should LNG industry's future energy needs emerge in a different way than currently envisioned or should load growth be higher than forecast, BC Hydro could need additional resources. BC Hydro recommends exploring clean or renewable energy supply options and being prepared to advance a procurement process to acquire energy from clean or renewable power projects as required to meet LNG needs that exceed existing and contracted supply. • With regard to interest in local generation solutions, BC Hydro focuses on local generation through acquisitions processes and is committed to local solutions in a number of ways including electrifying remote communities, maintaining the SOP for small projects and the Net Metering program, which encourages residential and small business customers to offset their own electricity consumption
TAC Input	• Many TAC members were not ready to state preferences on example portfolios until more detailed data was available. • One TAC member observed that it is not the role of BC Hydro to foster regional development, green development, reduced GHGs, or any other social objective through the purchase of new electricity supply • Another two noted that more is needed from BC Hydro and the provincial government to help identify potentially feasible geothermal generation resource locations while another member stated that the most cost effective option for procuring additional electricity should be the one that is pursued • Another disagreed with BC Hydro's comment that a portfolio of renewable generation from IPP's would be higher cost than one involving Site C and/or natural gas • Another member drew attention to the consideration of other environmental impacts such as the impact of transmission connections to these widespread generation sites	• TAC members had a range of views on this action. Two members did not support the action based on the view that energy was not needed (or greatly diminished) and/or was not cost-effective. Other members generally supported clean energy development but wanted to see further analysis on: – Volume and timing requirements; – Deliverability and cost of new supply risks – Cluster analysis – Additional resource portfolios (all gas and electric load avoidance) • Another member supporting clean energy development suggested that it was important to consider the findings of the Merrimack Report to ensure better accessibility of procurement processes for First Nations	

TOPIC: TRANSMISSION AND SUPPLY TO LIQUEFIED NATURAL GAS (LNG) INDUSTRY			
	2011 CONSULTATION QUESTION (March to April 2011)	**2012 CONSULTATION QUESTION (May to July 2012)**	**COMPARISON May 2012 Draft Recommended Action Vs. Current Recommended Action**
	No questions about the topic were asked in 2011.	Consultation participants were asked to indicate their agreement with reinforcing the existing 500-kilovolt line from Prince George to Terrace, including installation of new capacitors, to meet new demand on the North Coast. They were also asked to indicate their agreement with continuing to work with Liquefied Natural Gas (**LNG**) developers to understand their electricity requirements and keeping options open until further certainty on future requirements can be established by: • undertaking work to maintain the earliest in-service date for a new 500 kilovolt transmission line from Prince George to Terrace and Kitimat and from the Peace River region to Prince George; • developing procurement options for additional clean energy resources, backed up by gas-fired generation (located only in the North Coast, or in both the North Coast and across the province) for electricity that could be delivered in the 2019 to 2020 timeframe, should it be needed	• The Recommended Action concerning reinforcing the existing 500-kilovolt line from Prince George to Terrace, including installation of new capacitors (referred to as Prince George to Terrace Capacitors or **PGTC**), to meet new demand on the North Coast remains unchanged • Based on updated LNG requirements, BC Hydro is no longer undertaking work to maintain the earliest in-service date for a new 500 kilovolt transmission line from Prince George to Terrace and Kitimat and from the Peace River region to Prince George • As described above, BC Hydro is no longer intending to acquire 2,000 GWh/year of clean or renewable energy resources that would come into service in the 2016 to 2018 time period. BC Hydro would explore clean or renewable energy supply options and is to and be prepared to advance a procurement process to acquire energy as required to meet LNG needs that exceed existing and contracted energy supply.

TOPIC: TRANSMISSION AND SUPPLY TO LIQUEFIED NATURAL GAS (LNG) INDUSTRY			
Public Input		• The majority of public participants agreed with the recommendation to reinforce the existing 500 kV transmission line from Prince George to Terrace to meet the demand on the North Coast. The most popular reasons given for agreement were that reinforcing this existing line was logical and necessary. Some participants who disagreed with this option noted preferred the use of alternative energy sources, opposed LNG development, or preferred that local generating facilities should be built instead. Concern was also expressed that industry should pay for the required transmission. • 48 per cent of public participants agreed with the recommendation to undertake work to maintain the earliest in-service date for a new transmission line. 17 per cent neither agreed nor disagreed. When participants did agree, they noted that it was on the condition that BC Hydro explores other options, and that it is cost efficient. • 35 per cent disagreed with the recommendation regarding a new transmission line. Reasons for disagreement included lack of support for natural gas, opposition to LNG, and the belief that industry should provide their own electricity/pay for it themselves. • A key theme at the stakeholder meetings was that participants wanted BC Hydro to proceed cautiously in its approach to supplying the proposed LNG plants with energy, in case the demand for electricity does not emerge. As well participants did not want residential rates to subsidize the cost of new energy for large industrial users, including the proposed LNG plants. Participants indicated that they did not want residential rates to be affected due to increased industrial demand. • Some participants at the stakeholder meetings also recommended that the proposed LNG plants self-generate electricity using natural gas, rather than obtain their energy supply from BC Hydro and increase demand on the system	**RESPONSE TO CONSULTATION INPUT** • BC Hydro has continued work to understand the future requirements of the LNG industry. While the potential for additional LNG facilities to locate in B.C. has strengthened, it appears that most LNG facilities will use direct-drive natural gas turbines to run the cooling process to convert natural gas to liquid form, but may require electricity from BC Hydro for ancillary activities. • At this time, BC Hydro is moving forward with the recommended action to advance PGTC, which entails the reinforcement of the existing 500 kV transmission line from Prince George to Terrace through new series capacitors and upgrades to substations, but is not moving forward with work on a new 500 kV transmission line from Prince George to Terrace. • With regard to the LNG industry's future energy requirements, BC Hydro has adequate supply to meet 3,000 GWh/year of LNG load and is committed to meeting the future requirements of this industry. BC Hydro continues to explore clean or renewable energy supply options and is prepared to acquire additional energy from clean power projects as required to meet the LNG industry's needs in excess of existing and contracted supply. It also recommends working with industry to explore natural gas supply options on the North Coast to enhance transmission reliability and to meet the LNG industry's requirements for dependable supply. The approach described above is consistent with participants' concerns expressed during consultation regarding the potential for stranded investments. It will

TOPIC: TRANSMISSION AND SUPPLY TO LIQUEFIED NATURAL GAS (LNG) INDUSTRY			
First Nations Input		• Similar to Site C and Revelstoke Unit 6, several First Nations workshop participants expressed concern that transmission upgrades appeared to be fully committed projects even though BC Hydro indicated that the IRP did not commit BC Hydro to any specific capital project • Some First Nations workshop participants indicated that industrial customers (not residential customers) should bear the cost of these upgrades • The BCFNEMC indicated it was supportive in principle of the proposed transmission upgrades; however, it also said the large amount of uncertainty regarding LNG facilities raised serious questions and highlighted the need for very timely and effective contingency planning • First Nations feedback on supplying electricity to power North Coast industrial development was mixed with some favouring it and others not. Factors influencing participants' positions were concern about increased rates, interest in greater opportunities for participation in energy development and concern about environmental impacts. Several First Nations expressed concern about the level of uncertainty associated with the "prepare for potentially greater demand" recommended actions. Some participants expressed significant concern about a perceived lack of opportunities for First Nations in clean/renewable energy development among the recommended actions. • The BCFNEMC reported that it takes no position on the LNG facilities, and is not opposed in principle to supplying them with electricity. However, it also stated that there is some degree of inconsistency in Government policies on clean energy and the energy supplied for the LNG Plants. • The BCFNEMC stated that transmission costs should be carried by the developers not customers (*see also feedback on Transmission Planning topic above*) • In regards to procurement, the BCFNEMC stated that generation located near demand is preferable and First Nations should be given first or full opportunity to develop generation projects	ensure BC Hydro is ready and able to serve new LNG customer load, while not unduly risking investment before commitments are made. • BC Hydro acknowledges consultation participants' concerns regarding the potential rate pressures caused by serving the LNG industry. The B.C. Government's direction has enabled greater use of natural gas to reduce the cost of providing service to LNG, to ensure BC Hydro electricity supply can be competitive with the option of LNG producers self-supplying, and to support LNG producers in being competitive in the world market. • In addition, the government's LNG strategy committed to offsetting the increased expense of supplying new LNG facilities by ensuring that LNG developers contribute capital to infrastructure development and to the electricity supply required to serve each operation. • BC Hydro acknowledges that First Nations had diverse perspectives on electricity supply to North Coast LNG. Since the spring of 2012 BC Hydro has been engaged in consultation with First Nations in the area regarding the potential supply of electricity to LNG proponents. • BC Hydro is no longer consulting on a new 500 kV line from Prince George to Terrace and Kitimat and from the Peace River region to Prince George (as it is no longer recommended), but consultation continues with potentially impacted First Nations regarding reinforcement of the existing 500 kV line (PGTC)
TAC Input		• Regarding the transmission line reinforcement and work to maintain the earliest in-service date of a new transmission line; TAC members generally expressed support, however with a number of strong caveats including: – Ratepayers should not be subsiding costs for new infrastructure caused by LNG plants – Public policy questions around these major developments still need to be addressed (including the need for new transmission given a recent change in Government policy) – A new *Insulate More* strategy is needed to protect against any potential undesirable consequences of this major LNG development. • TAC members' views on developing procurement options for additional clean energy resources, backed up by gas to power North Coast industrial development ranged from support to concerns about the potential rate impacts and environmental impacts associated with gas-fired generation.	

TOPIC: POTENTIAL LARGE INDUSTRIAL DEMAND IN THE NORTHEAST FORT NELSON AND HORN RIVER BASIN			
	2011 CONSULTATION QUESTION (March to April 2011) No questions about the topic were asked in 2011.	**2012 CONSULTATION QUESTION (May to July 2012)** Consultation participants were asked to indicate their agreement with continuing to monitor the northeast natural gas industry and undertake studies to keep electricity supply options open, including transmission connection to the integrated system, and local gas-fired generation.	**COMPARISON** **May 2012 Draft Recommended Action Vs. Current Recommended Action** • Recommended Action is unchanged
Public Input		• Public participants expressed varied opinions on the recommendation to monitor the natural gas industry and undertake studies to keep electricity supply options open. 51 per cent of respondents agreed with this recommendation. • Agreement came with conditions that: BC Hydro should explore other options; it is cost efficient; and BC Hydro should support conservation/cleaner options • Those individuals that disagreed with this option stated that BC Hydro should consider other alternatives, or that industry should pay for their own power, as well as expressing opposition to gas-fired generation and the environmental impacts	**RESPONSE TO CONSULTATION INPUT** • The Fort Nelson and Horn River Basin regions are presently not part of BC Hydro's integrated electricity system, however these regions may experience significant future growth in electricity demand as a result of growth in the oil and gas sector • BC Hydro acknowledges TAC and First Nations concerns surrounding increased rate-payer costs and the use of natural gas as a fuel. At this time Hydro is continuing to monitor development of the natural gas industry in the northeast and recommends continuing discussions with industry and undertaking studies to keep electricity supply options open.
First Nations Input		• Several First Nations workshop participants expressed the view that it would make sense for the northeast natural gas industry to self-supply. The practice of "fracking" was considered a big environmental issue by some participants and those participants did not view natural gas as sustainable. • The BCFNEMC reported that it is supportive of electrification of the natural gas industry provided First Nations and BC Hydro customers do not face tighter supply, higher costs, or more non-clean generation requirements. The BCFNEMC noted again that it perceives inconsistencies in government policies relating to clean energy and natural gas development.	
TAC Input		• TAC members generally supported the Fort Nelson action to continue to monitor the activity and keep options alive. Two TAC members expressed concern about the environmental and rate impacts associated with serving large new gas industrial loads in the northeast, asserting that rate payers should not be subsidizing this activity. Others suggested that significant public policy questions need to be addressed with these large developments prior to determining appropriate actions for BC Hydro.	

TOPIC: PREPARE FOR POTENTIALLY GREATER DEMAND - PEAK CAPACITY RESOURCES – PUMPED STORAGE			
	2011 CONSULTATION QUESTION (March to April 2011) No questions about the topic were asked in 2011.	**2012 CONSULTATION QUESTION (May to July 2012)** Consultation participants were asked to indicate their agreement with exploring peak capacity resources by working with industry to explore pumped storage capacity options to reduce the lead time to in-service dates and to develop an understanding of where and how to site such future resources in the province should they be needed.	**COMPARISON** **May 2012 Draft Recommended Action Vs. Current Recommended Action** • BC Hydro is no longer undertaking work to explore pumped storage capacity options
Public Input		• 61 per cent of consultation participants agreed with this recommendation, while 15 per cent disagreed. • Those that agreed often agreed strongly that this is an area that requires more exploration and is a good management of resources. Those that disagreed indicated they did so because pumped storage is inefficient.	**RESPONSE TO CONSULTATION INPUT** • As part of good utility practice, BC Hydro continues to have a contingency plan in case electricity demand grows faster than forecast or if planned resources don't come online when expected • Because Revelstoke Unit 6 is no longer needed as part of the base plan without LNG load, it is being brought forward as one of the additional capacity options for contingency purposes, along with the GMS Units 1-5 Capacity Increase • The recommended action to work with industry to advance pumped storage as a contingency option is no longer included at this time, because of its high cost. Pumped storage remains within BC Hydro's inventory of long term resource options for future IRPs. • BC Hydro notes that a large number of consultation participants, understandably, had little familiarity with pumped storage, given such a project has not been located in B.C. to date. Should such a recommended action move forward in the future, it should involve sharing the growing understanding about the potential of pumped storage with others, including First Nations.
First Nations Input		• First Nations workshop participants viewed pumped storage both favourably and unfavourably. On the one hand there was concern about what was perceived as a high cost/low return resource and on the other hand there was interest in establishing pumped storage as a new industry for First Nations. • The BCFNEMC would be supportive of pumped storage as a vehicle for First Nations investment, provided that facilities can be developed in an environmentally responsible manner, and with assurance of long-term need and appropriate rate design to ensure financial viability	
TAC Input		• TAC members generally supported pumped storage investigations with a few qualifiers, namely: – BC Hydro should also continue to explore other storage options – Pumped storage would likely not be cost effective – BC Hydro should collaborate with First Nations on this activity	

PREPARE FOR POTENTIALLY GREATER DEMAND - PEAK CAPACITY RESOURCES – NATURAL GAS			
	2011 CONSULTATION QUESTION (March to April 2011) Consultation participants were asked to indicate their level of agreement with three example portfolios: • One was comprised of all renewable energy sources, excluding Site C • The second was comprised of all renewables, including Site C • The third was comprised of renewables, Site C and gas-fired generation From this input, views on the role of natural gas in serving B.C.'s electricity needs were gathered. Please see the Buy section for a summary of comments received on Portfolio 1 and the Site C section for comments received on Portfolio 2.	**2012 CONSULTATION QUESTION (May to July 2012)** Consultation participants were asked to indicate their agreement with exploring peak capacity resources by: • Working with industry to explore natural gas-fired generation options to reduce the lead time to in-service dates and to develop an understanding of where and how to site such future resources in the Province, should they be needed.	**COMPARISON** **May 2012 Draft Recommended Action Vs. Current Recommended Action** • Recommended Action is unchanged
Public Input	• The example electricity generation portfolio which included gas (Portfolio 3) had the strongest public disagreement on the feedback forms (opposed by 66 per cent and supported by 25 per cent of respondents). The most prevalent reason for disagreement was gas-fired generation and its higher greenhouse gas emissions.	• 50 per cent of participants agreed and 35 per cent disagreed with this recommended action. • Those that agreed indicated that gas-fired generation is a good alternative, is logical and makes sense • Those that disagreed indicated opposition to gas fired generation, and concerns about environmental impacts	**RESPONSE TO CONSULTATION INPUT** • As mentioned above, as part of good utility practice, BC Hydro continues to have a contingency plan in case electricity demand grows faster than forecast or if planned resources don't come online when expected • BC Hydro notes that while the province has a wealth of clean or renewable energy resources, cost effective options for meeting growth in peak demand with clean capacity are more limited. • BC Hydro recommends continuing to investigate natural gas-fired generation supply options to reduce their potential lead time to in-service and to develop an understanding of where and how to site such resources, should they be needed, given that this resource is cost-effective, flexible and proven • Any use of natural gas-fired generation will be planned in such a way to achieve the 93 per cent clean electricity objective for customer demand outside that designed to serve the LNG industry on the North Coast. In July 2012, the British Columbia's Energy Objective Regulation was deposited, which modifies the CEA Chapter 2(c) objective by providing that electricity to serve LNG demand is not included in the 93 per cent clean or renewable target. Refer to Chapter 1.2.4 in Chapter 1. This enables BC Hydro to ensure the LNG industry is competitive with other self-supplying LNG plants, while allowing for the use of cost-effective clean or renewable resources.
First Nations Input	• First Nations feedback on the example portfolio containing natural gas did not express either support or opposition to natural gas. However, several participants expressed concern about the impact of climate change. A small number of First Nation participants expressed interest in natural gas fired generation. One participant said this should be an interim measure provided that the generation facilities are located close to the consumers of the electricity thereby reducing transmission requirements and related impacts. • The BCFNEMC suggested that natural gas generation may still have a role to play in long-term energy planning; to be used during infrequent low-water years, as gas may provide cost-benefits, and improve reliability, and energy security. The BCFNEMC also submitted that natural gas may also have a role in helping to displace electricity that is currently imported from other jurisdictions that primarily use coal for generation.	• First Nations workshop participants expressed a range of views on natural gas-fired generation options. Opposition to natural gas stemmed from the view that is was not sustainable, nor as cheap as some clean renewable resources once the cost of emissions are taken into account. There was also a concern about the health effects of natural gas. On the other hand, support for natural gas was tied to the expectation that the costs would be borne by industry and that the facilities could be situated close to where the electricity is consumed. • The BCFNEMC stated that extensive consultation will be required before any new natural gas projects could be brought on stream	
TAC Input	• Several TAC members supported continued examination of the role of gas under certain circumstances, however they were unwilling to weigh in with a definitive preference until more information was available • While many TAC members noted a role that gas may play under certain circumstances in the long term plan, TAC members were also concerned about GHG emissions and recognized the need for a comprehensive approach to meeting GHG reduction targets • Two TAC members commented that other jurisdictions regard gas as a relatively clean fuel, and B.C. exports gas to them. In addition, siting gas fired generation closer to the load allows for less transmission requirements and provides voltage support in demand centres.	• TAC members' views on exploring natural gas were split. Some supported the action as a cost-effective resource; others were concerned about the environmental and/or cost risk associated with a gas strategy • One member urged BC Hydro to reconcile the draft IRP and new gas-fired generation policy from the provincial government	

TOPIC: ELECTRIFICATION			
	2011 CONSULTATION QUESTION (March to April 2011) • Consultation participants were asked to indicate their level of agreement with a proactive approach to electrification, in which BC Hydro would work with government and other partners to facilitate and encourage increased electrification where it can reduce greenhouse gas emissions and benefits to customers	**2012 CONSULTATION QUESTION May to July 2012)** No questions about the topic were asked in 2012.	
Public Input	• 58 per cent of consultation respondents agreed with the approach to actively pursue electrification, compared to 29 per cent who disagreed • Those who agreed indicated they did so because it would decrease GHG emissions, because they supported a switch to electrification, and because they supported a proactive approach • Those who did not support the approach expressed a range of reasons, including the increased demand for electricity, the need for the technology of the cars to improve, and the need for government and industry to be responsible for electrification, not BC Hydro. • Many stakeholder meeting participants had concerns that a proactive approach to electrification could significantly increase demand for energy, which would require a significant new supply of energy such as large hydro, wind, run-of-river, etc. • Several stakeholders voiced concerns about the limitations of electric cars in rural communities		**RESPONSE TO CONSULTATION INPUT** • Within the IRP, BC Hydro examined the drivers of electrification, the potential impact of electrification on the system, and when electrification might occur. Analysis concluded that electrification will take time to gain momentum and that the potential costs and impacts of general electrification would be significant. Further, it is uncertain where and when electrification should be undertaken relative to other carbon mitigation measures. • BC Hydro will continue to work with the B.C. Government on the Province's Climate Action Plan
First Nations Input	• First Nations both supported and opposed electrification. Amongst their concerns were the rate impact of electrification and the environmental impacts of electricity generation and transmission infrastructure • There was a perception among several First Nations that there are conflicting policy objectives particularly with respect to reducing greenhouse gas (**GHG**) emissions and at the same time providing electricity to operations that extract carbon emitting natural gas for domestic sale or export • Some First Nations questioned the relevance of electrification to their communities, many of which are located in rural areas where electric cars are not viewed as practical and in some cases electricity service is unreliable. There was a perception among some First Nations that electrification will benefit urban areas at the expense of rural First Nations communities. There was a concern that First Nations will be impacted by the development of further generation and transmission infrastructure and will pay increased electricity rates notwithstanding their communities do not enjoy the same levels of electricity service as urban areas. • The BCFNEMC recommended that extension of reliable electricity service to all First Nations communities in the province should be a first priority • The BCFNEMC indicated that decisions on electrification should not impose pressure for unwanted developments, impacts, or costs on First Nations • The BCFNEMC stated that electrification should not become an industry incentive program at the expense of existing electricity consumers. New customers should pay full costs, including any marginal cost increases accruing to existing consumers		
TAC Input	• Three TAC members supported taking a proactive role with electrification with caveats, two were neutral expressing a need for more information, and one disagreed with electrification stating the opinion that BC Hydro should be responding to customer demand • All members, with the exception of one, emphasized the need for a more comprehensive look at electrification options including cost assessments and/or impacts on taxpayers • One member expressed a concern over electrification in the natural gas sector; siting the need for the province to take a more proactive approach to planning in the regions and assessing the pace of development		

TOPIC: EXPORT MARKET POTENTIAL			
	2011 CONSULTATION QUESTION (March to April 2011) Consultation participants were asked to indicate their level of agreement with BC Hydro undertaking an assessment of the export market demand for clean or renewable energy	**2012 CONSULTATION QUESTION (May to July 2012)** An update was provided in the 2012 consultation Discussion Guide. No questions about the topic were asked in 2012.	
Public Input	• Opinion was divided between participants who agreed with the enhanced export approach (44 per cent) and those who disagreed with it (48 per cent) • Those who agreed with this approach stated the value of economic benefits although caution was also expressed that economic benefits may not be enough to justify the environmental and social impacts of new generation. Supporters of exports also appreciated the ability to sell green electricity, and B.C.'s abundant supply of natural resources. • Those that opposed it expressed concern over the environmental impact, the need to ensure electrical sustainability and opposition to IPP development • Many stakeholder meeting participants supported clean electricity generation for the purpose of export, provided BC Hydro is first able to meet domestic electricity requirements		**RESPONSE TO CONSULTATION INPUT** • Market conditions do not justify the development of new, additional clean or renewable resources for the export market. Refer to section 5.8 of Chapter 5 for detailed analysis. • BC Hydro will continue to monitor export market conditions for potential export opportunities going forward as market conditions could change • As per long-standing practice, BC Hydro will continue to optimize the revenue generated by the sale of any electricity that is surplus to domestic requirements
First Nations Input	• Similar to feedback from stakeholders and the public, First Nations were divided on the issue of BC Hydro acquiring additional renewable energy produced in B.C. for the sole purpose of export • First Nations workshop participants that were open to supporting electricity exports indicated that their support was dependent on First Nations becoming full participants in export, including revenue sharing and jobs • First Nations that opposed electricity exports were concerned about the impact of electricity export on the environment and on First Nations rights and title. They were also concerned that electricity export will undermine domestic electricity supply at competitive rates. • The BCFNEMC offered the following considerations in relation to electricity export: (1) the priority must be domestic requirements; (2) that there be financial protection from rate increases; (3) First Nations must be protected from unwanted development; and (4) First Nations participation as beneficiaries of export development is essential. • The BCFNEMC indicated that they did not see an economic benefit to B.C. acquiring additional electricity for export at this time		
TAC Input	• TAC members were skeptical of the business case for exports in the current climate. If exports proceed, concern was expressed that cheaper supply alternatives would be used for exports and longer term domestic electricity needs would be met by more expensive options • Caution was also expressed that all costs incurred by BC Hydro, including administrative and use of existing transmission are taken into account, and BC Hydro does not enter into an IPP purchase agreement until a profitable export agreement of matching length is executed. Another member raised concern over the environmental impacts of building for exports. • One TAC member stated that the export of cost effective and competitive electricity affords B.C. tremendous opportunities for economic development, employment and an opportunity to play a leadership role in reducing greenhouse gases throughout North America		

TOPIC: FOSTER DEVELOPMENT IN FIRST NATION AND RURAL COMMUNITIES THROUGH THE USE AND DEVELOPMENT OF CLEAN OR RENEWABLE RESOURCES			
	2011 CONSULTATION QUESTION (March to April 2011) First Nations participants were asked for their input on the BC energy objective to foster development in First Nation and rural communities through the use and development of clear or renewable resources	**2012 CONSULTATION QUESTION (May to July 2012)** This consultation topic was part of the 2011 First Nations consultation only.	
First Nations Input	• There was substantial interest in greater First Nations involvement in clean or renewable energy development in order to create revenue and jobs in First Nations communities, but First Nations workshop participants identified significant barriers to greater involvement. First Nation participants underlined that BC Hydro should be doing more to help First Nations overcome these barriers and become full participants in clean or renewable energy development. • There was also significant interest in connecting remote communities to the electricity grid or alternatively having remote communities become energy self-sufficient through clean or renewable generation projects that replace diesel generation • Apart from clean or renewable energy development, First Nation workshop participants were also interested in employment and business opportunities with BC Hydro • The FMEMC recommends that BC Hydro review procurement and energy purchase related policies to facilitate First Nations developments and reduce financial or other barriers that currently discourage First Nations participation • The FNEMC also states that projects must be suitable for local conditions and be supported by the community	• There were similar views expressed by First Nations in the second round workshops concerning their interest in benefiting and directly participating in economic development opportunities, including clean or renewable energy projects • It was stated that First Nations should be viewed as partners and receive something back from BC Hydro for the development of First Nations resources • There was an interest in receiving clean and reliable energy in First Nations communities. Many noted that electricity infrastructure upgrades were needed to support reliable power in their communities so as to support development and attract new investment. • Outages were a particular concern, especially in remote communities	**RESPONSE TO CONSULTATION INPUT** The following are some of the initiatives BC Hydro has undertaken to advance this *CEA* objective. • BC Hydro is continuing with the Standing Offer Program (**SOP**). BC Hydro is required to establish and maintain the SOP pursuant to the *CEA*. • In response to specific requests from a number of First Nation workshop participants, BC Hydro has made resource options data for the province available in a downloadable GIS database posted on the BC Hydro website at: http://www.bchydro.com/energy-in-bc/meeting_demand_growth/irp/document_centre/reports/final_ror.html BC Hydro programs outside the IRP. • Apart from the IRP, and more broadly than the specific objective relating to clean or renewable energy development, BC Hydro has a number of initiatives that respond to Aboriginal interests, including: – Remote Community Electrification (**RCE**) – BC Hydro's Aboriginal Education and Employment Strategy (**AEES**) – Aboriginal Procurement – Distributed Generation self-assessment toolkit for First Nations – Net Metering program

FIRST NATIONS COMMENT FORM
INTEGRATED RESOURCE PLAN

First Nation/Tribal Council: _____

Name of First Nation/Tribal Council Representative:

_____

BC Hydro is collecting information for the purposes of fulfilling its mandate under the *Hydro and Power Authority Act*, BC Hydro's Electric Tariff (regulated under the *Utilities Commission Act* by the BC Utilities Commission), the *Clean Energy Act*, and related Regulations and Directions. Some of the information you provide to BC Hydro may be personal information (this could include your name, mailing address, phone number, and email address). In the event we receive personal information we will not use it. If you have any questions regarding the information collection undertaken on this form, please contact the IRP First Nation Consultation Project Team lead at 1 877 461 0161 extension 3.

For further information or to submit your feedback form, please contact:

BC Hydro Aboriginal Relations
6911 Southpoint Drive, 10th Floor, Burnaby, B.C. V3N 4X8

Phone: 1 877 461 0166 extension 3
Fax: 604 528 2822
2013irp@bchydro.com

bchydro.com/irp

Please submit your feedback by October 18, 2013

BC hydro
FOR GENERATIONS

We are seeking your First Nation's comments on the IRP and recommended actions by the following topic areas:

- Supporting LNG
- Conserving First
- Powering Tomorrow
- Managing Resources
- Planning for the Unexpected (Contingency Plans)
- General IRP Comments

BC Hydro is seeking information from your First Nation as part of its First Nations consultation on its Integrated Resource Plan. BC Hydro will review written comments it receives during the comment period and those comments will help inform the final IRP that will be submitted for government's approval by November 15, 2013. The comments which your First Nation provides in the comment form may be provided to government as part of a consultation report.

SUPPORTING LNG

BC HYDRO HAS ADEQUATE SUPPLY TO MEET THE INITIAL 3,000 GWH OF LNG LOAD AND WILL PREPARE TO MEET FURTHER REQUIREMENTS AS THEY EMERGE.

Just as previous generations invested wisely in the heritage system that currently serves British Columbians with affordable and reliable electricity, new choices must be made now to support the province's unique opportunities for economic growth and prosperity.

One of the most important economic opportunities for the province is the development of B.C.'s LNG industry.

Today, there are approximately a dozen publicly announced LNG projects proposed for Kitimat, Prince Rupert and other areas of the province, including the north coast, Howe Sound and Vancouver Island.

After undertaking the recommended actions in this IRP, BC Hydro will have sufficient supply to meet the initial 3,000 gigawatt hours of LNG load and will prepare to meet further LNG requirements as they emerge.

BC Hydro understands that while most LNG producers will use direct-drive natural gas turbines to run the cooling process to convert natural gas to liquid form, many are expected to take electricity for ancillary requirements, such as lighting, control systems and office requirements. Others may choose electricity for all their energy needs. As the LNG industry develops, BC Hydro will continue to support the needs of this sector.

The IRP recommends actions to support the development of the LNG industry, including reinforcing an existing 500 kilovolt transmission line from Prince George to Terrace; working with industry to explore natural gas supply options on the north coast to enhance transmission reliability and to help meet the expected load; and being prepared to acquire clean energy supply in the future if LNG needs exceed existing, contracted supply.

For a complete set of current IRP recommended actions on supporting LNG see the IRP Summary document or click here.

For more information about changes since the May 2012 draft IRP recommended actions see Table 7.2 of Chapter 7 or click here to go to the topic on 'transmission and supply to Liquefied Natural Gas (LNG) industry'.

To access the "click here" links above you can request an electronic version of the comment form by emailing 2013irp@bchydro.com

Please provide your First Nation's level of support for BC Hydro's recommended action: **to 'support the LNG industry' by reinforcing an existing 500 kilovolt transmission line from Prince George to Terrace; working with industry to explore natural gas supply options on the north coast to enhance transmission reliability to help meet the expected load; and being prepared to acquire clean energy supply in the future if LNG needs exceed existing, contracted supply.**

- ☐ Strongly Agree
- ☐ Somewhat Agree
- ☐ Neither Agree or Disagree
- ☐ Somewhat Disagree
- ☐ Strongly Disagree

Please indicate the reasons for your First Nation's level of agreement and/or provide additional comments on the complete set of recommended actions on supporting LNG.

Please provide your First Nation's comments, not personal opinions and please do not identify third parties in your comments. For privacy reasons, BC Hydro could be prevented from considering or retaining comments which appear to be personal comments (e.g. comments using "I", "me"), or comments which identify third parties.

CONSERVING FIRST

POWER SMART ENCOURAGES RESIDENTS, BUSINESSES AND COMMUNITIES ACROSS B.C. TO TAKE A LEADERSHIP ROLE IN CONSERVATION.

Conservation is the first and best choice to meet future demand growth. Not only are such measures cost-effective and have low environmental impact, they also help reduce customers' electricity bills.

Through our Power Smart program, BC Hydro is a recognized leader in conservation, providing a range of programs and incentives to help our customers conserve, be more efficient, use power wisely, and ultimately use less. British Columbians are now saving the equivalent amount of electricity to meet the annual needs of approximately 425,000 homes.

Placing a high priority on conservation and efficiency is consistent with government policy as well as public, First Nations and stakeholder input collected from IRP consultation to date.

BC Hydro believes that building and maintaining a conservation culture and achieving associated savings requires sustained effort. For this reason, the IRP recommends maintaining BC Hydro's demand-side management measures at the same level going forward as has been undertaken in recent years, and preparing to increase these measures as load increases.

For a complete set of current IRP recommended actions on conserving first see the IRP Summary document or **click here**.

For more information about changes since the May 2012 draft IRP recommended actions see **Table 7.2** of Chapter 7 or **click here** to go to the topic on 'conserve—reduce energy consumption and encourage less consumption during peak demand periods'.

To access the "click here" links above you can request an electronic version of the comment form by emailing 2013irp@bchydro.com

Please provide your First Nation's level of support for BC Hydro's recommended action: **to support 'conserve first' by maintaining BC Hydro's demand-side management measures at the same level going forward as has been undertaken in recent years, and preparing to increase these measures as load increases. BC Hydro is relying on all three customer classes to undertake demand-side activities and meet our 7,800 gigawatt hour target in fiscal 2021.**

- ☐ Strongly Agree
- ☐ Somewhat Agree
- ☐ Neither Agree or Disagree
- ☐ Somewhat Disagree
- ☐ Strongly Disagree

Please indicate the reasons for your First Nation's level of agreement and/or provide additional comments on the complete set of recommended actions on conserving first.

Please provide your First Nation's comments, not personal opinions and please do not identify third parties in your comments. For privacy reasons, BC Hydro could be prevented from considering or retaining comments which appear to be personal comments (e.g. comments using "I", "me"), or comments which identify third parties.

POWERING TOMORROW

LIKE BC HYDRO'S OTHER HERITAGE ASSETS, SITE C WOULD PROVIDE RELIABLE AND COST-EFFECTIVE ELECTRICITY FOR GENERATIONS.

Electricity systems are inherently complex, capital intensive and require significant lead time to construct.

As B.C.'s population and economy continue to grow, so will our demand for electricity. And while BC Hydro continues to upgrade the capacity, safety and reliability of our aging facilities, even these important investments will not be sufficient to meet future demand.

To meet that demand, the IRP recommends building Site C, a proposed third dam and generating station on the Peace River, which would provide cost-effective, reliable and renewable electricity for generations.

Analysis of alternative portfolios in the IRP shows that Site C provides the best combination of financial, technical, environmental and economic development attributes and is the most cost-effective way to meet the long-term need for energy and dependable capacity.

For a complete set of current IRP recommended actions on powering tomorrow see the IRP Summary document or **click here**.

For more information about changes since the May 2012 draft IRP recommended actions see **Table 7.2** of Chapter 7 or **click here** to go to the topic on 'Site C' and **click here** to go to the topic on 'filling the short term capacity gap'.

To access the "click here" links above you can request an electronic version of the comment form by emailing 2013irp@bchydro.com

Please provide your First Nation's level of support for BC Hydro's recommended action: **to 'power tomorrow' by building Site C, a proposed third dam and generating station on the Peace River, which would provide cost-effective, reliable and renewable electricity for generations.**

- ☐ Strongly Agree
- ☐ Somewhat Agree
- ☐ Neither Agree or Disagree
- ☐ Somewhat Disagree
- ☐ Strongly Disagree

Please indicate the reasons for your First Nation's level of agreement and/or provide additional comments on the complete set of recommended actions on powering tomorrow.

Please provide your First Nation's comments, not personal opinions and please do not identify third parties in your comments. For privacy reasons, BC Hydro could be prevented from considering or retaining comments which appear to be personal comments (e.g. comments using "I", "me"), or comments which identify third parties.

MANAGING RESOURCES

BC HYDRO IS FOCUSED ON MANAGING COSTS TO KEEP ELECTRICITY RATES AMONG THE LOWEST IN NORTH AMERICA.

BC Hydro is fortunate to have several clean energy resource options to help meet the electricity needs of our customers, including biomass facilities, run-of-river hydro and wind projects.

Independent power producers (IPP) have been bringing value to BC Hydro's system since the late 1980s, and they will continue to have an important role in providing clean, renewable electricity for decades to come.

BC Hydro currently has 128 Electricity Purchase Agreements (EPAs) with IPPs, of which 81 are in operation providing about 20 per cent of BC Hydro customers' electricity needs. These EPAs provide clean, renewable power for the long term.

As BC Hydro plans to meet the future needs of customers for decades to come, it also needs to stay focused on keeping electricity rates competitive with those charged by other public utilities in North America.

The IRP recommends managing the costs associated with BC Hydro's current energy portfolio of EPAs and selecting the most cost-effective plan to meet customers' needs within the context of the *Clean Energy Act*. As part of this cost-management effort, the IRP recommends reviewing IPP projects not yet in commercial operation and renewing cost-effective EPAs that provide benefits such as enhanced system reliability and economic activity.

For a complete set of current IRP recommended actions on managing resources see the IRP Summary document or click here.

For more information about changes since the May 2012 draft IRP recommended actions see Table 7.2 of Chapter 7 or click here to go to the topic on 'buy energy from BC-based energy producers'.

To access the "click here" links above you can request an electronic version of the comment form by emailing 2013irp@bchydro.com

Please provide your First Nation's level of support for BC Hydro's recommended action: **to 'manage resources' by managing the costs associated with BC Hydro's current energy portfolio of EPAs and selecting the most cost-effective plan to meet customers' needs within the context of the *Clean Energy Act*.**

- ☐ Strongly Agree
- ☐ Somewhat Agree
- ☐ Neither Agree or Disagree
- ☐ Somewhat Disagree
- ☐ Strongly Disagree

Please indicate the reasons for your First Nation's level of agreement and/or provide additional comments on the complete set of recommended actions on managing resources.

Please provide your First Nation's comments, not personal opinions and please do not identify third parties in your comments. For privacy reasons, BC Hydro could be prevented from considering or retaining comments which appear to be personal comments (e.g. comments using "I", "me"), or comments which identify third parties.

PLANNING FOR THE UNEXPECTED

BC HYDRO WILL CONTINUE TO EXPLORE AND ADVANCE CAPACITY RESOURCE OPTIONS FOR CONTINGENCY PURPOSES.

BC Hydro's long-term planning also takes account of future uncertainties. As part of good utility practice, BC Hydro must have contingency plans in place in case electricity demand grows faster than forecast, or if planned resources don't become available when expected. If more large projects than expected come on line (e.g., LNG facilities or mines), or efficiency and conservation measures do not achieve their intended results, the need for new supply may be advanced.

Ensuring BC Hydro can meet future peak capacity requirements is a specific objective because capacity resources must be available the instant they are needed. New, clean capacity resources are more limited than clean energy resources that could be secured on relatively short notice through a procurement process.

To ensure that contingency plans are in place, the IRP recommends continuing to explore and advance capacity resource options, including:

- Advancing the Revelstoke Generating Station Unit 6 Resource Smart project to preserve its earliest in-service date of F2021 with the potential to add up to 500 megawatts of peak capacity.
- Advancing GM Shrum Generating Station upgrades with the potential to gradually add up to 220 megawatts of peak capacity starting in F2021.
- Working with industry to explore natural gas supply options to reduce their potential in-service lead time and to develop an understanding of where and how to site such resources, should they be needed.

For a complete set of current IRP recommended actions on planning for the unexpected (contingency plans) see the IRP Summary document or **click here**.

For more information about changes since the May 2012 draft IRP recommended actions see **Table 7.2** of Chapter 7 or **click here** to go to the section on 'Resource Smart projects' and **click here** to go to the topic on 'prepare for potentially greater demand—peak capacity resources—natural gas'.

To access the "click here" links above you can request an electronic version of the comment form by emailing 2013irp@bchydro.com

---

Please provide your First Nation's level of support for BC Hydro's recommended contingency plans that: **continue to advance capacity resource options, including advancing the Revelstoke Generating Station Unit 6 Resource Smart Project; the GM Shrum Generating Station Resource Smart project; and working with industry to explore natural gas supply options.**

- ☐ Strongly Agree
- ☐ Somewhat Agree
- ☐ Neither Agree or Disagree
- ☐ Somewhat Disagree
- ☐ Strongly Disagree

Please indicate the reasons for your First Nation's level of agreement and/or provide additional comments on the complete set of recommended actions on planning for the unexpected (contingency plans).

Please provide your First Nation's comments, not personal opinions and please do not identify third parties in your comments. For privacy reasons, BC Hydro could be prevented from considering or retaining comments which appear to be personal comments (e.g. comments using "I", "me"), or comments which identify third parties.

GENERAL COMMENTS

Please provide any additional comments your First Nation has on the IRP and the set of recommended actions.

For a complete set of current IRP recommended actions **click here**.

To access the "click here" link above you can request an electronic version of the comment form by emailing 2013irp@bchydro.com

Please provide your First Nation's comments, not personal opinions and please do not identify third parties in your comments. For privacy reasons, BC Hydro could be prevented from considering or retaining comments which appear to be personal comments (e.g. comments using "I", "me"), or comments which identify third parties.

Thank you for taking the time to provide your First Nation's comments on BC Hydro's Integrated Resource Plan.

BC Hydro will review written comments it receives during the comment period and those comments will help inform the final IRP that will be submitted for government's approval by November 15, 2013. The comments which your First Nation provides in the comment form may be provided to government as part of a consultation report.

Appendix 2 – BC First Nations Energy and Mining Council reports

October 18, 2013

Ministry of Energy
Honourable Minister Bennett
PO Box 9069
Stn Prov Govt
Victoria, BC V8W 9E2

BC Hydro
CEO, Charles Reid
333 Dunsmuir
Vancouver, BC
V6B 5R3

Dear Minister Bennett and Mr Reid,

The First Nations Energy and Mining Council (FNEMC) is pleased to provide our response and comments on the draft Integrated Resource Plan recently released by BC Hydro.

We attach two reports – one a technical analysis and review prepared on our behalf by Intergroup Consultants Ltd. and the other a summary of concerns and perspectives we have heard from First Nations on important policy directions either expressed or not addressed in the BC Hydro plan.

As you know, the FNEMC has actively participated in both the technical and First Nations engagement streams of the IRP process since its inception. We have attempted to provide constructive and practical input on all relevant issues, while at the same time fairly representing the views and interests of First Nations across the province. In the papers attached, we have not attempted to cover all issues or repeat all earlier comments, but have instead focused primarily on changes proposed since the 2012 draft plan and our responses at this time.

Sincerely,

Dave Porter, CEO
BC First Nations Energy and Mining Council

FNEMC process and policy comments on the BC Hydro August 2013 draft Integrated Resource Plan

OCTOBER 18, 2013

Prepared by the First Nations Energy and Mining Council

Table of Contents

1.0 Introduction

This document summarizes comments from the First Nations Energy and Mining Council on policy and process issues related to BC Hydro's August 2013 draft Integrated Resource Plan (IRP).

The First Nations Energy and Mining Council (FNEMC) regularly engages with First Nations leadership, Tribal Councils, bands and members, provincial government officials, and industry representatives. Through such engagement, FNEMC works to develop a thorough understanding of issues and concerns related to energy development in the province and to represent those fairly from a First Nations perspective in planning processes.

Since FNEMC signed a protocol agreement with BC Hydro in 2010, FNEMC has participated throughout the IRP process in two capacities. Intergroup Consultants Ltd represents FNEMC on the Technical Advisory Committee, whose technical comments on the August 2013 draft IRP have been submitted concurrently. FNEMC also participated in the two rounds of regional First Nations workshops held throughout the process in 2011 and 2012. Subsequent to this involvement, FNEMC provided comments on the May 2011 and May 2012 drafts of the IRP.

FNEMC participation in the IRP process has been intended to provide a First Nations (FN) perspective on general- and province-wide issues related to the IRP, to provide support and advice to participating FNs, and to highlight issues for FNs that were unable or chose not to participate directly. FNEMC's role has been to supplement or support the views and rights of individual FNs and in no way has been intended to override or displace these views and rights. Similarly, FNEMC does not purport to formally represent to views of any one First Nation or Tribal Council, and comments from FNEMC do not bind individual FNs to any recommendations or commitments.

This document summarizes policy and process comments related to the seventeen recommendations outlined in the August 2013 draft IRP. Many of the comments and concerns expressed in the FNEMC's previous submissions remain relevant and apply equally to the August 2013 draft. Like the previous submissions, this document is a summary of key issues only.

FNEMC recognizes that individual First Nations may have different perspectives and priorities. This report is not intended to capture and include these variations.

2.0 Main Concerns Since the May 2012 Draft IRP

A thorough summary of the changes made to the Recommended Actions in the August 2013 draft IRP when compared to the May 2012 draft IRP can be found in FNEMC's technical advisory committee (TAC) report, *Technical Advisory Committee member comments on BC Hydro's August 2013 Integrated Resource Plan*, submitted concurrently and hereafter referred to as the FNEMC TAC submission.

Key changes of particular concern to First Nations include:

1. Reducing emphasis on demand-side management (DSM) and conservation efforts;
2. Reducing spending on energy purchase agreements (EPAs) by deferring, downsizing or terminating pre-delivery EPAs, re-evaluating spending on EPA renewals and minimizing acquisition of new EPAs;
3. No longer recommending developing energy procurement options to acquire up to 2,000 GWh per year from clean energy producers in the F2017 to F2019 time frame; and,
4. The continued inclusion and inherent promotion of Site C.

These concerns will each in turn be discussed in the following sections, which outline the FNEMC's comments on the August 2013 draft IRP Recommended Actions.

As mentioned in the FNEMC TAC submission, the August 2013 draft IRP contains recommendations for the base resource plan (without LNG), the base resource plan including LNG, and a contingency resource plan. Comments are provided on recommendations associated with each of these plans. For a summary of each of BC Hydro's Recommended Actions from the August 2013 draft IRP, please refer to the FNEMC TAC submission.

3.0 Comments on Recommended Actions: Base Resource Plan

Recommended Action #1: Moderate current DSM spending and maintain long-term target. Target expenditures of $445 million ($175 million, $145 million, and $125 million per year) on conservation and efficiency measures during F2014 to F2016. Prepare to increase spending to achieve 7,800 GWh/year in energy savings, and 1,400 MW in capacity savings by F2021.

This Recommended Action significantly differs from the associated Action in the May 2012 draft IRP, which recommended the pursuit of aggressive demand-side management (DSM) programming and spending relative to currently planned targets.

BC Hydro states, "…conservation remains BC Hydro's first strategy to address growing demand for electricity."[1] Yet, conservation programs have been significantly scaled back. This is of particular concern to First Nations who are strongly supportive of DSM and conservation programs as a primary means to address energy supply issues. The scaling back of DSM and conservation efforts is inconsistent with previous commitments and sends mixed messages to First Nations and the broader community regarding the importance of energy conservation.

In addition, BC Hydro has made no effort to improve access of DSM and conservation programs to First Nations beyond simply acknowledging that FNs have unique needs and challenges. Access to DSM and conservation programming remains a significant issue for First Nations. Regardless of the reduced spending on DSM and conservation initiatives, the ability to provide appropriate and accessible programs to First Nations must not be compromised. FNEMC is of the opinion that BC Hydro should increase efforts to involve FNs, who must be an integral part of the design and delivery of potential programs and initiatives.

As per FNEMC's previous comments, we are supportive of aggressive DSM and conservation programs, not the downsizing of such initiatives, as long as the implementation of various measures is based on incentives rather than penalties; program design takes into account the circumstances of rural and off-grid FN communities; the need for business and economic development on FN lands is recognized; and, accessibility for lower and fixed income people is ensured.

Recommended Action #2: Implement a voluntary industrial load curtailment program from F2015 to F2018 to determine how much capacity savings can be acquired and relied

[1] From BC Hydro Integrated Resource Plan, August 2013, Chapter 7 – Consultation, 7-48.

upon over the long term. Pilot voluntary capacity-focused programs (direct load control) for residential, commercial and industrial customers over two years, starting in F2015.

As per FNEMC's previous comments, we are supportive of this recommendation, subject to the same caveats mentioned above for programs that would affect First Nations communities. In addition, there would be FN support for additional and mandatory measures such as time-of-use rates, so long as those were not punitive to residential and rural users, particularly First Nations.

Recommended Action #3: Explore more codes and standards. Explore additional opportunities to leverage more codes and standards to achieve conservation savings at a lower cost and to gain knowledge and confidence about their potential to address future or unexpected load growth.

As mentioned in the FNEMC TAC submission, the potential costs associated with these actions appear small, and to the extent BC Hydro can implement these measures in a manner that enhances their certainty and does not unduly impact First Nations or residential customers and domestic electricity rates, this recommendation appears reasonable.

Recommended Action #4: Optimize the current portfolio of IPP resources according to the key principle of reducing near-term costs while maintaining cost-effective options for long-term need.

This recommendation is of particular concern for First Nations. Clean and renewable energy is becoming an increasingly important economic driver in First Nations communities, providing opportunities for jobs, revenue, and improved socio-economic conditions. Many First Nations have been working in conjunction with industry on projects that are providing stable, long-term, and most importantly, sustainable development opportunities. First Nations have become successful stakeholders in the Independent Power Producer (IPP) industry through ownership, equity investment, and Impact Benefit Agreements.

Recommended Actions that inhibit clean energy opportunities for First Nations are not acceptable. Thus, as mentioned in the FNEMC TAC submission, BC Hydro must prioritize the retention and renewal of EPAs where First Nations are a partner or the main developer. First Nations should not have to be concerned with lost investments or potential stranded assets.

In addition, First Nations have expressed interest in seeing the Net Metering program cap extended from 50 kW to at least 250 kW, preferably 500 kW, for First Nations communities. This would further enhance First Nations opportunities in clean energy development and energy self-sufficiency.

Recommended Action #5: Investigate incentive-based pricing mechanisms over the short-term that could encourage potential new customers and existing industrial and commercial customers looking to establish new operations or expand existing operations in BC Hydro's service area.

FNEMC is supportive of this action to the extent that surplus energy in the short- to medium-term can be sold to domestic customers at a price higher than spot market or short-term export prices. However, there is concern that domestic loads serviced will not be "temporary," as discussed in more depth in the FNEMC TAC submission. Clarification is needed to ensure that servicing new domestic loads will not exacerbate supply issues or rate structures for existing customers.

Recommended Action #6: Continue to advance Site C. Build Site C to add 5,100 GWh of annual energy and 1,100 MW of dependable capacity to the system for the earliest in service date of F2024 subject to: environmental certification; fulfilling the Crown's duty to consult and where appropriate accommodate Aboriginal groups; and Provincial Government approval to proceed with construction.

There appears to be even greater reliance on Site C in the August 2013 draft IRP. FNEMC still does not support the inclusion of Site C at this time. As mentioned in our previous submissions, FNEMC and FNs have expressed concern since the inception of the BCUC Section 5 Inquiry, and repeated throughout the IRP process, that the pursuit of Site C is inconsistent with the concept of the IRP to provide overall direction in the province rather that determine the fate of individual projects.

In addition, Site C will have significant, long-last impacts in the local region, yet the benefits of such a projects are experienced elsewhere. It is inappropriate to focus on the project from a provincial perspective until regional concerns and issues have been addressed.

Also of concern, is the decreased cost projection for Site C while overall expected costs of alternative clean or renewable energy options have increased. FNEMC understands the nature of the cost projections for IPPs – which have been known to exceed initial budgets – however, it is unclear why the projected cost of Site C has decreased. It appears the interest rate used may have changed, but clarification is needed. Another observation worth noting is that clean energy options become cost comparable with a 10 percent increase in the cost of Site C. Additional sensitivity analysis would be useful to determine when alternative clean energy projects become the favourable option.

Recommended Action #7: Fill the short-term gap in peak capacity with cost-effective market purchases first and power from the Columbia River Treaty second.

In general, FNEMC supports the options available to supply the short-term energy gap and acknowledges their necessity. However, BC Hydro recommends prioritizing market purchases first, followed by obtaining power from the Columbia River Treaty second; FNEMC would like to see priority given to the Columbia River Treaty in order to be consistent with the Province's commitments to clean energy and reduced greenhouse gas emissions.

Recommended Action #8: Advance reinforcement along existing GMS-WSN-KLY 500kv transmission.

and

Recommended Action #9: Review alternatives for reinforcing the South Peace Regional Transmission Network to meet expected load.

As per FNEMC's previous submissions, we are supportive of upgrading existing infrastructure where possible and cost effective, with the caveat that impacted First Nations be adequately consulted and accommodated.

4.0 Comments on Recommended Actions: LNG Base Resource Plan

Recommended Action #10: Working with industry, explore natural gas supply options on the north coast to enhance transmission reliability and to meet expected load.

As per the FNEMC TAC submission, the costs associated with this recommendation are small in the short-term and appear reasonable. However, FNEMC has concerns with exploring and potentially prioritizing gas-fired generation as a supply option, including: the potential impacts to local ecosystems and air quality from increased industrial development and greenhouse gas emissions, the potential preference given to gas-fired generation when renewable supply options may be available, and the lack of FN involvement in evaluating potential supply options. Before pursuing this recommendation, these concerns should be addressed.

Recommended Action #11: Explore clean or renewable energy supply options and be prepared to advance a procurement process to acquire energy from clean power projects, as required to meet LNG needs that exceed existing and committed supply.

Should LNG development proceed, FNEMC is supportive of the recommendation to explore clean or renewable energy supply options to meet LNG needs that exceed the existing and committed supply. However, as previously expressed by FNEMC, FNs need to be given the opportunity to be full participants in the procurement process for such projects. Priority should be given to projects with a FN ownership or partnership structure.

Furthermore, BC Hydro should ensure that any additional demand for non-compression loads be met with clean or renewable supply options. Many FNs have expressed interest in seeing at least 50 percent of total energy needed by the LNG industry being supplied by renewable sources.

Generation near demand is also preferable and would afford local First Nations economic development opportunities.

Recommended Action 12: Advance reinforcement of the 500kv transmission line to Terrace.

Similar to FNEMC's response to Recommended Actions 8 and 9, we are supportive of upgrading existing infrastructure where possible and cost effective, with the caveat that impacted First Nations be adequately consulted and accommodated.

As mentioned previously, FNEMC has taken no position on the LNG facilities and is not opposed in principle to supplying them with electricity. However, transmission costs should not affect the rate structure of electricity for First Nations or domestic users; transmission costs should be carried by the LNG proponent and not by general customers.

Recommended Action 13: Continue discussions with BC's northeast gas industry and undertake studies to keep open electricity supply options, including transmission connection to the integrated system and local gas-fired generation.

Because of the uncertainty regarding future growth in electricity demand in the region, FNEMC is supportive of the recommendation to continue discussions and undertake studies to assess potential supply options. However, because transmission connection to the existing system or development of local gas-fired generation would significantly impact local First Nations – who are not the primary beneficiary of such projects and are disproportionately impacted by projects of this nature – early consultation and accommodation of local First Nations is paramount.

As expressed in previous submissions, potential supply options must only be pursued if First Nations and domestic users do not face tighter supplies, higher costs or more non-clean generation requirements as a result of extending electricity to the oil and gas industry.

5.0 Comments on Recommended Actions: Contingency Resource Plans I

As mentioned in the FNEMC TAC submission, BC Hydro has identified three recommended actions to address contingencies for uncertainties in load-resource balances without expected LNG loads.

Recommended Action 14: Advance Revelstoke Unit 6 Resource Smart Project to preserve its earliest in service date of F2021.

and

Recommended Action 15: Advance Resource Smart upgrades at GM Shrum Generating Station Units 1-5 with the potential to gradually add up to 220 MW of peak capacity starting in 2021.

As per previous submissions, FNEMC is supportive of the Resource Smart Projects.

Recommended Action 16: Investigate natural gas generation for capacity.

FNEMC supports the investigation of natural gas generation as a contingency measure. However, priority should be given to existing assets, such as the Resource Smart Projects, which do not entail new land disturbance or significant environmental impacts. Similarly, BC Hydro should be focus on DSM and conservation initiatives and renewable supply options before pursuing natural gas generation.

6.0 Comments on Recommended Actions: Contingency Resource Plan II

Recommended Action 17: Fort Nelson area supply options.

FNEMC is supportive of the recommendation to monitor Fort Nelson area load growth and investigate a range of supply options. As per previous comments, FNEMC would like to see priority given to clean and renewable supply options, local generation, and opportunities for FNs to participate in developing supply options. Likewise, any potential development must not occur without adequate consultation and accommodation of local FN interests.

7.0 Comments on Additional IRP Recommendations

As outlined in the FNEMC TAC submission, BC Hydro included the following additional recommendations in the August 2012 draft IRP:

Province-wide Electrification: BC Hydro notes the costs and impacts of general electrification would be significant and proposes to undertake low-cost preparatory actions including analysis of where electrification would be expected to occur in response to strong climate policy; continuing distribution system studies in conjunction with smart meter and smart grid implementation and ongoing efforts to monitor provincial, national and international climate policy developments.

FNEMC supports the recommendation to undertake low-cost preparatory actions, only. As mentioned in previous submissions, we agree that substantial investments should not be made to pursue province-wide electrification given the already challenging target for clean energy, projected demanded increases, and uncertainties around potential supply options.

Export Market: BC Hydro's key conclusion is that market conditions do not justify the development of new, additional clean or renewable resources for the export market.

FNEMC supports this recommendation. As per our previous submissions, domestic needs, reasonable pricing, clean energy and GHG emissions targets should continue to receive higher priority than export possibilities.

Transmission planning for Generation Clusters: BC Hydro's analysis indicates there may be the potential to somewhat reduce environmental footprints but only a marginal financial benefit associated with developing clusters to meet customer demand. BC Hydro notes it will consider transmission advancement for generation clusters during acquisition processes.

As mentioned in the FNEMC TAC submission, this recommendation appears reasonable.

8.0 Exclusions and Omissions

Energy Planning from a First Nations Territorial Perspective: FNEMC continues to believe that BC Hydro and the Province should consider First Nations rights and title to traditional territory as a fundamental basis on which to plan future generation and transmission requirements. It remains a disappointment that BC Hydro and the Province have not considered this approach.

First Nations Equity Participation and Revenue Sharing: FNEMC continues to believe that BC Hydro and the Province should adopt new ownership and revenue-sharing policies to permit and facilitate FN participation in the development of major energy projects. It remains a disappointment that BC Hydro and the Province have not acknowledged or considered this more progressive approach.

9.0 Process and Consultation Issues

Beyond the Recommended Actions, of most concern to FNEMC is a continuing failure of BC Hydro to adequately and meaningfully consult with First Nations in the IRP process. It is the position of FNEMC and many First Nations that the draft does not meet the requirements for meaningful consultation.

FNEMC has participated in all three stages of the process, each successively involving less and less First Nations perspectives. The August 2013 draft IRP responds to very few, if any of the concerns highlighted in 2011 or 2012 relating to First Nations consultation and accommodation, capacity requirements and technical support, joint decision making, revenue sharing, or planning to meet First Nations needs.

At each stage, FNEMC and other First Nations were presented with information after BC Hydro had already determined recommended actions and direction. Meaningful consultation must include capacity support, the provision of information before direction has been determined, sufficient time for First Nations to respond, accommodation of First Nations perspectives, and ongoing updates and dialogue. Beyond the provision of information, and very limited travel reimbursement, there has been very little First Nations involvement. In fact, BC Hydro made it clear that they would not hold any additional workshops for First Nations to explain changes to the most recent draft of the IRP.

Before the August 2013 draft IRP is finalized, it is incumbent that BC Hydro reaches out to First Nations in order to adequately explain the latest draft of the IRP and respond to First Nations concerns. Absent of this step, we cannot endorse or recommend to First Nations that they endorse the Plan.

10.0 Conclusion

This document summarizes comments from the First Nations Energy and Mining Council on policy and process issues related to BC Hydro's August 2013 draft IRP. We hope that the feedback is constructive and valuable to BC Hydro and First Nations.

As mentioned in previous submissions, FNEMC is generally supportive of the comprehensive and long-term approach to provincial energy planning, and a number of positions and amendments reflected in the current draft are logical and supportable. However, others are cause for concern – some appear to be inconsistent with other BC Hydro or government policy commitments, some neglecting to address issues raised in previous iterations of the plan, and some likely to adversely and disproportionately impact FN communities.

There are numerous changes that are of particular concern to the FNEMC and First Nations, including:

1. Reducing emphasis on demand-side management (DSM) and conservation efforts;
2. Reducing spending on energy purchase agreements (EPAs) by deferring, downsizing or terminating pre-delivery EPAs, re-evaluating spending on EPA renewals and minimizing acquisition of new EPAs;
3. No longer recommending developing energy procurement options to acquire up to 2,000 GWh per year from clean energy producers in the F2017 to F2019 time frame; and,
4. The continued inclusion and inherent promotion of Site C.

In addition, there are outstanding issues related to First Nations consultation and accommodation that BC Hydro should address before expecting First Nations' endorsement of the IRP. FNEMC believes that more can be done by BC Hydro and the Province to involve First Nations in the planning process and future energy development opportunities throughout the province.

As per our previous submissions, FNEMC continues to believe that efforts to date should be regarded as part of an ongoing planning process. FNEMC and many First Nations would be pleased to continue working with BC Hydro, the Province, industry, and other electricity consumers on this and other projects in the future.

TECHNICAL ADVISORY COMMITTEE MEMBER

COMMENTS ON BC HYDRO'S

AUGUST 2013 INTEGRATED RESOURCE PLAN

Prepared on behalf of the First Nations Energy and Mining Council

Prepared by:

InterGroup Consultants Ltd.

500-280 Smith Street

Winnipeg, MB R3C 1K2

October 2013

TABLE OF CONTENTS

LIST OF TABLES

1.0 INTRODUCTION

This document summarizes comments of the First Nations Energy and Mining Council (FNEMC) as prepared by InterGroup Consultants Ltd. on BC Hydro's August 2013 Integrated Resource Plan (IRP). InterGroup participated as members of the Technical Advisory Committee for BC Hydro's IRP on behalf of the FNEMC. Comments reflect the review of the August 2013 IRP and information presented to TAC members.

The IRP is BC Hydro's plan for obtaining the resources necessary to meet provincial electricity requirements for the next 20 years. Specific objectives for the IRP are set out in the *Clean Energy Act*. The Act requires BC Hydro to complete its IRP and submit it to the provincial government within 38 months of Part 6 of the Act coming into force[1]. The IRP review process was delayed from its original schedule due to a provincial government review of BC Hydro rates that was announced in April 2011 and other provincial policy reasons.

BC Hydro submitted the IRP to the provincial government on August 2, 2013. On August 23, 2013 the Minister of Energy and Mines wrote to BC Hydro stating that prior to any Lieutenant Governor in Council decision concerning the IRP, BC Hydro would be required to:

1. Give public notice that it has submitted the IRP and provide public access to the IRP on its website and other means.

2. Conduct a final round of consultations related to its IRP with First Nations, key stakeholders and the public. Consultation must be carried out by October 18, 2013. While the consultations should cover the IRP in its entirety, of particular interest is feedback on the changes to the IRP since BC Hydro undertook consultations in the spring and summer of 2012, on uncertainty over the 20-year period and the contingency plans BC Hydro is proposing to deal with that uncertainty.

3. By November 15, 2013, BC Hydro is to re-submit its IRP for consideration by the LGIC[2].

The IRP includes several components:

- A load forecast, which estimates how much electricity British Columbia will require over the next 20 years.

- Conservation initiatives that BC Hydro could pursue with its customers in order to reduce the amount of electricity that must be supplied.

- An evaluation of generation and transmission resources that could be acquired in order to meet the gap between existing resources and those required to serve future load growth.

[1] The Act received royal assent on June 3, 2010.
[2] Summarized from the Minister's letter dated August 23, 2013. Available: http://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/regulatory-planning-documents/integrated-resource-plans/current-plan/ministers-letter-irp.pdf. Accessed: October 9, 2013.

BC Hydro examines each of these components under different potential future market scenarios, for example high or low future economic growth. Potential generation and transmission resources are evaluated across different indicators (or attributes) including cost, environmental impacts and economic benefits. The IRP concludes with several recommendations and actions for BC Hydro to pursue.

As part of the IRP process, BC Hydro established a Technical Advisory Committee (TAC). The purpose of the TAC was to provide ongoing feedback and expert advice to BC Hydro during the development of the IRP. BC Hydro has committed to considering input and advice from TAC members in developing the IRP. However, the IRP is BC Hydro's document and BC Hydro is not bound by recommendations or advice it receives from TAC members.

BC Hydro requested that the FNEMC participate as a member of the TAC. The FNEMC retained InterGroup Consultants Ltd. to participate on the FNEMC's behalf and to provide the FNEMC with a summary of comments and analysis following each TAC meeting. TAC meetings were held on December 14, 2010; January 27-28, 2011; February 14, 2011; April 5-6, 2011; February 28-29 2012; June 18 2012 and September 23, 2013.

BC Hydro has requested that TAC participants provide public comments on the August 2013 IRP. BC Hydro's draft IRP contains seventeen recommendations: nine recommendations on the Base Resource Plan; four recommendations on the LNG Base Resource Plan and four recommendations on the Contingency Resource Plan. This document summarizes the comments of InterGroup Consultants on the seventeen recommendations in the August 2013 IRP. FNEMC previously provided comments on the May 2012 draft IRP. Many of the FNEMC's comments on the 2012 draft apply equally to the August 2013 IRP. Comments in this document therefore focus on key changes to the IRP since the May 2012 draft. The FNEMC is also providing comments on First Nation policy and process considerations under separate cover.

2.0 SUMMARY OF IRP CHANGES SINCE MAY 2012 DRAFT IRP

There have been a series of changes incorporated into the August 2013 IRP when compared to the May 2012 draft IRP. Many of these changes have been driven, at least in part, by changes to provincial government policies. BC Hydro provided TAC members with a table summarizing key changes to the energy load-resource balance. The key changes include:

1. In the May 2012 Draft IRP, BC Hydro noted that until February 3, 2012, the Electricity Self-Sufficiency Regulation required BC Hydro to plan for self-sufficiency based on what BC Hydro's Heritage resources are capable of producing in the lowest water flows on record, known as "critical water conditions". In 2012, this planning requirement was changed to "average water conditions", which had the effect of reducing the need for firm energy by about 4,100 GW.h per year[3].

2. As part of the 2013 IRP, BC Hydro made certain changes to assumptions about IPP volumes, timing and attrition. This resulted in some changes to the load resource balance.

3. The 2013 IRP includes updates to the load forecast (using the 2012 load forecast as opposed to the 2011 load forecast used as the basis for the May 2012 IRP). This results in a lower overall supply requirement.

4. BC Hydro's 2013 IRP recommends adopting a number of actions to manage energy supply in the short- to mid-term including reducing spending on energy purchase agreements (EPAs) by deferring, downsizing or terminating pre-delivery EPAs, re-evaluating spending on EPA renewals and minimizing acquisition of new EPAs; delaying ramp-ups in spending on DSM activities and scaling back on voltage and var optimization project implementation. These measures have the effect of reducing the forecast energy supply in the short to medium term.

5. BC Hydro has also adjusted the forecasts that include LNG loads. This reduces the forecast demand in the LNG scenarios by between 2,300 to 3,800 GW.h annually.

Table 1 summarizes these changes with and without LNG loads. Key implications of these changes include:

- BC Hydro's 2013 IRP shows an energy surplus (without LNG) of 5,041 GW.h in F2017, 2,180 GW.h in F2021 and 284 GW.h in F2026. This contrasts with the 2012 Draft IRP where the near-term energy surplus (without LNG) was 3,039 GW.h in F2017, 346 GW.h in F2021 and an energy deficit of 2,087 in F2026.

- BC Hydro's 2013 IRP shows an energy surplus (with LNG) of 5,041 GW.h in F2017, 180 GW.h in F2021 and a deficit of 2,715 GW.h in F2026. This contrasts with the 2012 Draft IRP where the near-term energy deficits (with LNG) were 761 GW.h in F2017, 4,935 GW.h in F2021 and 7,367 in F2026.

[3] Page 1-13. May 2012 Draft IRP.

Table 1:
System Annual Energy Load Resource Balance After DSM
2012 Draft IRP Compared to 2013 IRP (GW.h)[4]

	F2017	F2021	F2026	F2031
Energy Surplus/Deficit Without LNG				
2012 Draft IRP with Critical Water	**-1,061**	**-3,754**	**-6,187**	**-11,297**
add: Change to Average Water Planning Criterion	4,100	4,100	4,100	4,100
2012 Draft IRP with Average Water	*3,039*	*346*	*-2,087*	*-7,197*
add: Updates to IPP Volume, Timing, Attrition	403	614	978	447
less: Reductions from 2011 Load Forecast to 2012 Load Forecast	-3,471	-1,446	-1,032	-2,679
add: Energy Supply Management Actions	-1,872	-226	361	764
2013 IRP Energy Surplus/Deficit	**5,041**	**2,180**	**284**	**-3,307**
Energy Surplus/Deficit With LNG				
2012 Draft IRP with Critical Water	**-4,861**	**-9,035**	**-11,467**	**-16,578**
add: Change to Average Water Planning Criterion	4,100	4,100	4,100	4,100
2012 Draft IRP with Average Water	*-761*	*-4,935*	*-7,367*	*-12,478*
add: Updates to IPP Volume, Timing, Attrition	403	614	978	447
less: Reduction from Initial LNG to Expected LNG	-3,800	-3,281	-2,281	-2,281
less: Reductions from 2011 Load Forecast to 2012 Load Forecast	-3,471	-1,446	-1,032	-2,679
add: Energy Supply Management Actions	-1,872	-226	361	764
2013 IRP Energy Surplus/Deficit	**5,041**	**180**	**-2,715**	**-6,307**

In general, BC Hydro's 2013 IRP shows near term energy surpluses (both with and without LNG loads) through at least F2021. Other key changes in the 2013 IRP relative to the 2012 draft IRP include:

1. BC Hydro has updated the cost estimates for Site C, with the overall effect of lowering the unit energy cost at the point of interconnection from $95/MW.h ($2011) to $78/MW.h ($2011)[5].

2. BC Hydro is no longer recommending pursuing more aggressive DSM program spending.

3. BC Hydro is no longer recommending developing energy procurement options to acquire up to 2,000 GW.h per year from clean energy producers in the F2017 to F2019 time frame.

[4] Source: information provided by BC Hydro to TAC members by email dated October 9, 2013.

[5] 2013 UECs are taken from page 3-47 of the 2013 IRP and are based on capital costs of $7.9 billion referenced to the Site C EIS submission. 2012 UECs are taken from page 3-37 based on capital cost of $7.9 billion included in the 2011 Site C Project Description Report. The capital costs do not have appeared to change, but the 2011 Site C project description notes a discount rate of 5.5 to 6.0 per cent at page 45 while the 2013 IRP cites a discount rate of 5.0 per cent at page 3-47.

BC Hydro's 2013 IRP contains recommendations for the base resource plan (without LNG), the base resource plan including LNG and a contingency resource plan. Comments are provided on recommendations associated with each of these plans in the following sections.

3.0 BASE RESOURCE PLAN

BC Hydro's Base Resource Plan is expected to result in the following Load Resource Balances (after conservation initiatives and before expected LNG):

1. Sufficient existing annual energy supply to meet energy requirements through to approximately F2025. Following recommended actions, sufficient energy supply to meet energy requirements to approximately F2033.

2. Sufficient existing capacity supply to meet capacity requirements through to approximately F2021. Following recommended actions, sufficient capacity supply to meet capacity requirements through F2033[6].

3.1 COMMENTS ON BC HYDRO RECOMMENDED ACTIONS

Recommended Action #1: Moderate current DSM spending and maintain long-term target. Target expenditures of $445 million ($175 million, $145 million, and $125 million per year) on conservation and efficiency measures during F2014 to F2016. Prepare to increase spending to achieve 7,800 GWh/year in energy savings, and 1,400 MW in capacity savings by F2021.

BC Hydro recommends reducing near term demand side management (DSM) expenditures while maintaining the ability to ramp back up DSM programming in the future. BC Hydro states that the planned adjustments to DSM program activities and expenditures in the near term result in potential savings of $330 million relative to maintaining currently planned DSM program expenditures. BC Hydro also notes these reduced expenditures will result in almost 900 GWh/year of lower cumulative DSM energy savings by F2021. BC Hydro states in developing plans for these reduced expenditures while maintaining the ability to ramp up in the future, it considered the following principles:

1. Eliminate projects or activities that have short energy savings persistence and thus only contribute to the near-term surplus period.

2. Consider "lost opportunities" by a) continuing to offer incentives for energy savings opportunities that will not be available in the future and b) defer incentives for energy savings opportunities that are not needed now but will have a predictable update regardless of when they are offered.

3. Maintain program activities to retain a level of customer and trades engagement and relationships so that DSM programs can be ramped up to long-term savings targets as needed.

4. Consider cost-effectiveness of DSM programs from both the UC and TRC perspectives.

5. Consider broad opportunities for customers to participate[7].

[6] Summarized from figures 8-3 and 8-4 on pages 8-46 and 8-47 of the August 2013 IRP.
[7] Summarized from page 8-16 of the August 2013 IRP.

This recommended action contrasts sharply with the recommendation from the May 2012 IRP where BC Hydro recommended more aggressive DSM programming and spending relative to currently planned targets. There is a risk that BC Hydro will send mixed messages to consumers about the importance of conservation initiatives and that uptake of future conservation programs will be compromised.

Also, as noted in comments on the May 2012 draft IRP, access to conservation programming continues to be an issue for many First Nations. First Nations continue to be underserved by current DSM programming. Consistent with BC Hydro's stated principle that it will "consider broad opportunities for customers to participate", BC Hydro should ensure its reduced DSM program spending does not compromise its ability to develop and implement options and programs that are accessible and appropriate for First Nations. This is particularly important for remote communities where the marginal cost of generation is substantially higher than on the integrated electricity system.

As noted in the FNEMC August 2012 comments, relevant considerations in this regard include:

- In First Nations communities housing costs and electricity bills may be paid by the Band and not the individual or family residing in the home. Therefore, conservation programs involving financial incentives/assistance for repairs and upgrades or reduced electricity bills may not be as effective as in other communities.

- Access to capital dollars for repairs and improvements to community facilities (both residential and commercial) may be limited compared to other communities.

- Codes and standards applicable in First Nations communities may differ from provincial standards.

In recognition of the specific challenges associated with conservation/DSM initiatives in First Nations communities, BC Hydro and the Province of British Columbia should provide capacity funding for energy managers to support energy conservation in First Nations communities. First Nations should be directly engaged in the design and delivery of conservation programs. Such programs should be focused on incentives rather than penalties. Program design should address specific needs of rural or off-grid First Nations; recognize the need for business and economic development on First Nation lands and ensure accessibility for lower and fixed income people.

Recommended Action #2: Implement a voluntary industrial load curtailment program from F2015 to F2018 to determine how much capacity savings can be acquired and relied upon over the long term. Pilot voluntary capacity-focused programs (direct load control) for residential, commercial and industrial customers over two years, starting in F2015.

BC Hydro's load-resource balance indicates a capacity deficit in approximately F2021. BC Hydro notes that other jurisdictions have established practices of relying on long-term load curtailment for peaking capacity and some forms of operational reserve. However BC Hydro also notes that to date BC Hydro has had experience with load curtailment programs for large industrial customers but these programs have not resulted in a long-term commitment either by BC Hydro to acquire load curtailment or customers to interrupt or adjust operations when and as required.

BC Hydro proposes to design and launch a voluntary load curtailment offer and capacity focused programs starting in F2015. BC Hydro notes that capacity focused measures have the potential to reduce the need for bridging resources such as market purchases and power from the Columbia River Treaty. BC Hydro also indicates these pilot programs will provide the opportunity for BC Hydro to evaluate whether to rely on capacity focused DSM as a long-term capacity resource[8].

Based on the information provided, BC Hydro's recommended action seems reasonable. Other observations noted as part of the comments provided on the May 2012 draft IRP that are still relevant include:

- The voluntary nature of these programs is important. BC Hydro should focus on developing and implementing voluntary programs and rate options that share the benefits of cost savings with customers that choose to participate.
- As with the energy focused DSM programs, access to these programs is important. BC Hydro should ensure cost-effective capacity reduction programs are accessible in First Nations communities as well as to residential, commercial and industrial customers.
- Any mandatory rate measures should focus on incentives rather than punitive rates for residential and rural users.

Recommended Action #3: Explore more codes and standards. Explore additional opportunities to leverage more codes and standards to achieve conservation savings at a lower cost and to gain knowledge and confidence about their potential to address future or unexpected load growth.

BC Hydro notes there may be opportunity to leverage additional levels of DSM related to codes and standards with the potential to deliver a substantial amount of cost-effective electricity savings. However, there is considerable uncertainty regarding implementation and achievement of these additional electricity savings. The costs associated with this action are anticipated to be approximately $1.5 million per year from F2015 to F2016. BC Hydro indicates it will design and manage these activities to achieve enhanced certainty at a reasonable cost[9].

Potential costs associated with these actions appear small and to the extent BC Hydro can implement these measures in a manner that enhances their certainty, and does not unduly impact First Nation or residential customer rates, this recommendation appears reasonable.

Recommended Action #4: Optimize the current portfolio of IPP resources according to the key principle of reducing near-term costs while maintaining cost-effective options for long-term need.

[8] Summarized from pages 8-20 to 8-21 of the August 2013 IRP.
[9] Summarized from pages 8-22 to 8-23 of the August 2013 IRP.

BC Hydro notes an adequate energy supply until F2027 and is therefore undertaking time-critical actions over the next few months to prudently manage the costs of energy resources it has acquired, committed to or planned over the next five years. These actions include:

1. Termination of Pre-COD EPAs: BC Hydro indicates it has or is seeking to execute mutual agreements to terminate EPAs with IPPs where development has stalled.

2. Deferral of additional supply: BC Hydro notes it is continuing to discuss options for deferral or downsizing of EPAs with developers where feasible options exist.

3. EPA Renewals: BC Hydro indicates IPP projects will be individually assessed as EPAs come up for renewals.

BC Hydro indicates it will continue to negotiate in good faith with First Nations where agreements are in place committing BC Hydro to negotiate EPAs.

This recommendation is of particular concern from a First Nation perspective. First Nations have been successful developers and partners in many IPP projects that supply clean and renewable energy. There is a material risk from this recommendation that BC Hydro will reduce confidence in its commitment to developing clean and renewable energy in the IPP sector and with First Nations. Specific comments on this recommendation include:

- To the extent BC Hydro can execute mutually beneficial agreements to both parties to EPAs to delay or downsize IPP project energy deliveries, these are reasonable measures to pursue. Key to this recommendation is that the agreement benefits, the IPP developer, BC Hydro and any affected First Nations.

- BC Hydro should prioritize retaining and renewing EPAs where First Nations are the main IPP developer or major partners in the IPP development.

Recommended Action #5: Investigate incentive-based pricing mechanisms over the short-term that could encourage potential new customers and existing industrial and commercial customers looking to establish new operations or expand existing operations in BC Hydro's service area.

BC Hydro indicates that domestic rates are higher than the price that can be obtained on the spot market; higher value for surplus energy can be obtained by increasing domestic demand. BC Hydro notes this is worthwhile only if the increased load is temporary and there is benefit to the initiative[10].

To the extent surplus energy in the short- to medium-term can be sold to domestic customers at a price higher than spot market or short-term export prices there is merit to this recommendation. However, there are concerns that any domestic loads serviced will not truly be "temporary". Experience in other jurisdictions has shown that truly interruptible electricity rates for domestic customers either need to be heavily discounted relative to full-tariff rates or that uptake of interruptible electricity will be low.

[10] Summarized from pages 8-26 to 8-27 of the August 2013 IRP.

Recommended Action #6: Continue to advance Site C. Build Site C to add 5,100 GW.h of annual energy and 1,100 MW of dependable capacity to the system for the earliest in service date of F2024 subject to: environmental certification; fulfilling the Crown's duty to consult and where appropriate accommodate Aboriginal groups; and Provincial Government approval to proceed with construction.

BC Hydro states there is a need for Site C based on an energy gap beginning in F2027 without LNG load and F2022 with LNG load and a capacity gap beginning in F2021 without LNG load and F2020 with LNG load. BC Hydro indicates it is difficult to precisely time the addition of new electricity resources due to a number of uncertainties. BC Hydro states that Site C is cost effective compared to a comparable clean generation block of viable clean or renewable alternatives ($94/MW.h delivered to the Lower Mainland compared to $153/MW.h). BC Hydro also notes Site C is cost effective compared to the clean plus thermal generation block (Revelstoke Unit 6 and six single cycle gas turbines) at $94/MW.h compared to $128/MW.h.

BC Hydro notes it is engaged in consultation with Aboriginal groups that will continue through all stages of Site C. BC Hydro states it has concluded 13 consultation agreements with 16 First Nations to date and others remain under discussion[11].

Comments on Site C were provided following the review of the 2012 draft IRP. Many of the comments from that submission remain relevant today. FNEMC does not support the inclusion at this time of Site C. FNEMC and First Nations have expressed concern since the inception of the BCUC Section 5 Inquiry and repeated throughout the IRP process that the approved IRP will be used by Hydro and government to justify particular projects and reduce or eliminate normally required rigorous scrutiny. Inclusion of Site C at this stage is inconsistent with the concept that the IRP is to provide overall direction, but not to approve individual projects. Site C has been studied considerably more than other potential resource options. It has also already received attention from legislators and regulators (including being exempted from the requirement for a certificate of public convenience and necessity under the *Clean Energy Act*). The degree to which Site C has already been advanced highlights several challenges associated with the IRP process:

- **Conflicts between provincial level planning and regional/local environmental impacts:** Site C highlights the conflict between provincial level energy planning and regional environmental impacts. In order to develop Site C, local First Nations and communities would be asked to bear significant impacts on lands and water. No decisions or plans to advance Site C should be made without meaningful consultation and accommodation with First Nations whose lands and waters would be impacted.

- **Benefits must be shared:** If Site C is to be developed in a manner that is acceptable to the impacted First Nations and communities, mechanisms must be in place to ensure the economic benefits of the project are shared fairly with the local First Nations and communities. Benefit sharing must extend beyond simply offering short-term construction-related employment to local residents.

[11] Summarized from pages 8-28 to 8-39 of the August 2013 IRP.

Revenue sharing and project ownership must be included as benefits for local First Nations and communities. Best practices from other Canadian jurisdictions should be reviewed and incorporated into project planning and development.

Recommended Action #7: Fill the short-term gap in peak capacity with cost-effective market purchases first and power from the Columbia River Treaty second.

Based on developing Site C by F2024, BC Hydro notes there is a three-year capacity gap without LNG from F2021 to F2023. To address this gap, BC Hydro proposes to rely on the market (power purchases) backed up by the Canadian Entitlement provided under the Columbia River Treaty for up to 200MW. BC Hydro notes this approach is beneficial to ratepayers12. FNEMC continues to support using power from the Columbia River Treaty prior to market purchases.

This recommendation is based on an assumption of Site C being built with an inservice date of F2024. To the extent BC Hydro is unable to develop Site C alternative sources of capacity would be required.

Recommended Action #8: Advance reinforcement along existing GMS-WSN-KLY 500kv transmission.

and

Recommended Action #9: Review alternatives for reinforcing the South Peace Regional Transmission Network to meet expected load.

These recommendations reflect requirements for system transmission upgrades identified in the IRP analysis. Both projects would require a certificate of public convenience and necessity in the event costs are expected to be greater than $100 million[13]. These recommendations appear prudent from a planning perspective, subject to BC Hydro obtaining the necessary environmental and regulatory approvals and ensuring First Nations are consulted and accommodated.

[12] Summarized from pages 8-39 to 8-40 of the August 2013 IRP.
[13] Summarized from pages 8-41 to 8-45 of the August 2013 IRP.

4.0 LNG BASE RESOURCE PLAN

In addition to the Base Resource Plan, BC Hydro also considered incremental actions that would be required to address expected LNG requirements (approximately an additional 3,000 GW.h and 360 MW by F2022)[14]. BC Hydro's Base Resource Plan is expected to result in the following Load Resource Balances (after conservation initiatives and including expected LNG):

1. Sufficient existing annual energy supply to meet energy requirements through to approximately F2019. Following recommended actions sufficient energy supply to meet energy requirements to approximately F2033.

2. Sufficient existing capacity supply to meet capacity requirements through to approximately F2021. Following recommended actions, sufficient capacity supply to meet capacity requirements through F2033[15].

4.1 COMMENTS ON BC HYDRO RECOMMENDED ACTIONS

Recommended Action #10: Working with industry, explore natural gas supply options on the north coast to enhance transmission reliability and to meet expected load.

BC Hydro characterizes this action as advancing work to determine where and how natural gas fired generation could be built to reduce project lead times and to be able to meet LNG load requirements as required. BC Hydro notes the decision on whether to proceed beyond exploring options would be pursuant to completion of supply agreements between BC Hydro and LNG proponents. BC Hydro proposes to conduct technical studies that would take approximately one year to complete at an estimated cost of $0.5 million. BC Hydro notes at present it does not need to commit to the type and quantities of natural gas generation required to maintain or enhance North Coast supply reliability[16].

It should be noted that in its May 2012 draft IRP, BC Hydro stated there has been little to no greenfield gas generation project development work in BC in decades and therefore siting of potential gas generation is a substantial issue[17].

The costs associated with this recommendation are small in the short-term and appear reasonable to preserve flexibility. Prior to any developments being advanced, impacts on local airsheds would need to be examined and First Nations would need to be consulted and accommodated.

Recommended Action #11: Explore clean or renewable energy supply options and be prepared to advance a procurement process to acquire energy from clean power projects, as required to meet LNG needs that exceed existing and committed supply.

[14] Page 2-2. August 2013 Integrated Resource Plan.
[15] Summarized from figures 8-5 and 8-6 on pages 8-61 and 8-62 of the August 2013 IRP.
[16] Summarized from pages 8-52 to 8-54 of the August 2013 IRP.
[17] Page 9-73. BC Hydro Draft Integrated Resource Plan. May 2012.

BC Hydro notes it has sufficient energy to be able to supply expected LNG loads without acquiring additional clean or renewable energy resources. However, there is uncertainty with the size of potential LNG load and therefore BC Hydro proposes to advance work on developing energy acquisition processes in a staged manner. BC Hydro states it will not launch an acquisition process until a clear need has emerged and anticipates funding to ensure acquisition processes are ready to be launched as required range from $50,000 to $500,000[18].

The costs associated with this recommended action are small and appear reasonable. In the event BC Hydro does go forward with another clean power procurement process, it should design such a process to address recommendations from the review of its procurement practices, in particular:

- Make the energy procurement process more transparent for all stakeholders.
- Implement smaller but more frequent energy procurements in the future[19].

Further recommendations include:

- BC Hydro should prioritize future procurement from projects with a First Nation partnership or ownership structure.
- Any unused or undeveloped water licenses should revert to the local First Nation.
- Attention should be paid to facilitating net-metering to encourage smaller scale development of local generation sources.

Recommended Action 12: Advance reinforcement of the 500kv transmission line to Terrace.

BC Hydro states the purpose of this project is to increase transfer capacity of the existing 500 kV transmission circuit to increase the ability to serve potential LNG and mine loads. BC Hydro indicates a final investment decision by the customer is expected to occur by the end of F2015. BC Hydro notes it is in the process of consulting with First Nations with respect to this project[20]. It appears this recommendation is dependent on a positive investment decision from potential LNG or other industrial customers in the area. The FNEMC has taken no position on the LNG facilities and is not opposed i principle to supplying them with electricity, however transmission costs should be carried by the developers, not general customers.

Recommended Action 13: Continue discussions with BC's northeast gas industry and undertake studies to keep open electricity supply options, including transmission connection to the integrated system and local gas-fired generation.

BC Hydro notes that the pace of expansion in the Horn River Basin has slowed considerably due to low gas prices and generally poor economic conditions. However, to maintain options to electrify this region

[18] Summarized from pages 8-54 to 8-55 of the August 2013 IRP.
[19] Final Report on BC Hydro's Energy Procurement Practices. Merrimack Energy Group. 2011.
[20] Summarized from pages 8-56 to 8-57 of the August 2013 IRP.

BC Hydro is recommending monitoring natural gas industry developments and engaging with industry to maintain the potential for supply alternatives. BC Hydro notes the costs associated with this recommendation are approximately $50,000 to $100,000 over the next three years and that no material regulatory approval processes are required for this recommended action[21]. The costs associated with this recommended action are small in the short term. However, given the potential for dramatic environmental and social changes associated with future electricity development in this region, BC Hydro must ensure it engages with First Nations early in any planning processes for future developments.

[21] Summarized from pages 8-57 to 8-60 of the August 2013 IRP.

5.0 CONTINGENCY RESOURCE PLANS

BC Hydro states that it undertakes contingency planning to manage the risks and consequences of not being able to meet loads should the base resource plan not materialize as expected. BC Hydro notes the aim of the CRPs is not to build the resources in the portfolios but to reduce the lead time for supply-side resources if the need arises. BC Hydro included two CRPs in its August 2013 IRP, one addressing contingencies without expected LNG Load and one with expected LNG loads.

5.1 COMMENTS ON BC HYDRO RECOMMENDED ACTIONS FOR CRP 1

BC Hydro has identified three recommended actions to address contingencies for uncertainties in load-resource balances without expected LNG loads. BC Hydro's recommended actions are capacity focused, though BC Hydro notes the potential for energy supply shortfalls that may advance the requirement for future clean energy acquisitions[22].

Recommended Action 14: Advance Revelstoke Unit 6 Resource Smart Project to preserve its earliest in service date of F2021.

and

Recommended Action 15: Advance Resource Smart upgrades at GM Shrum Generating Station Units 1-5 with the potential to gradually add up to 220 MW of peak capacity starting in 2021.

BC Hydro indicates Revelstoke Unit 6 would add 488 MW of long-term dependable capacity. BC Hydro indicates it will spend up to $7.2 million between F2014 and F2016 to ensure Revelstoke Unit 6 is available for its earliest in service date. BC Hydro states that work would be contained within the existing footprint of the Revelstoke GS.

BC Hydro states a capacity increase of units 1-5 at GM Shrum Generating Station could provide 220 MW of dependable capacity. Spending in F2015 and F2016 is forecast to be between $700,000 to $800,000. These projects were identified as the lowest cost capacity resources in section 6.9 of the IRP[23].

It appears these projects are reasonable contingency options in the event additional capacity is required on the BC Hydro system.

Recommended Action 16: Investigate natural gas generation for capacity.

BC Hydro proposes to undertake work to develop natural gas-fired options that focus on reducing lead times and understanding where and how to site natural gas fired generation. BC Hydro states First Nation engagement and consultation will be a key consideration for analysis and design of potential procurement processes. BC Hydro indicates it will seek to find ways to share risks with IPPs to develop the resources

[22] Summarized from pages 8-74 and 8-75 of the August 2013 IRP.
[23] Summarized from pages 8-65 to 8-71 of the August 2013 IRP.

to a shelf-ready status and avoid committing to major expenditures prior to need being confirmed. It appears this is a reasonable contingency option in the event additional capacity is required.

5.2 COMMENTS ON BC HYDRO RECOMMENDED ACTIONS FOR CRP 2

BC Hydro has identified one further recommended action to address contingencies for uncertainties in load-resource balances with expected LNG loads. BC Hydro's recommended action is primarily capacity and transmission focussed.

Recommended Action 17: Fort Nelson area supply options.

BC Hydro notes that it must be prepared to address potential loads in the Fort Nelson area in the event they arise. BC Hydro recommends a number of options including monitoring Fort Nelson area load growth and investigating a range of supply options. Key activities noted in the IRP include completing design and implementation of a Load Shedding Remedial Action Scheme that will allow BC Hydro to serve increased load on an interruptible basis (estimated cost of $2 million) and refining options to meet the range of forecast capacity shortfalls (estimated cost of $50-$100,000)[24]. Development of this scale in the Fort Nelson area raises environmental and social planning issues beyond simply supplying the development with electricity. If these developments emerge the province must ensure First Nations are consulted and accommodated.

[24] Summarized from pages 8-77 to 8-79 of the August 2013 IRP.

6.0 COMMENTS ON ADDITIONAL IRP RECOMMENDATIONS

BC Hydro includes the following additional recommendations in the IRP:

- **Province-wide Electrification:** BC Hydro notes the costs and impacts of general electrification would be significant and proposes to undertake low-cost preparatory actions including analysis of where electrification would be expected to occur in response to strong climate policy; continuing distribution system studies in conjunction with smart meter and smart grid implementation and ongoing efforts to monitor provincial, national and international climate policy developments.
- **Export Market:** BC Hydro's key conclusion is that market conditions do not justify the development of new, additional clean or renewable resources for the export market.
- **Transmission planning for Generation Clusters:** BC Hydro's analysis indicates there may be the potential to somewhat reduce environmental footprints but only a marginal financial benefit associated with developing clusters to meet customer demand. BC Hydro notes it will consider transmission advancement for generation clusters during acquisition processes.

These recommendations are consistent with the load and market scenarios evaluated by BC Hydro in the IRP and appear reasonable.

7.0 COMMENTS ON PROCESS AND NEXT STEPS

The FNEMC is also providing comments on First Nation policy and process considerations under separate cover. The review process contemplated by the province, and the decisions or actions that may flow from any approvals are not clear. The provincial government should provide timelines for review of the IRP and clearly communicate, to the public and participants in the IRP process, the decisions and actions that will follow approval of the IRP.

Finally, BC Hydro notes that the submission date for the next IRP is August 2018 unless a submission date is prescribed by LGIC regulation. BC Hydro notes that the Clean Energy Act enables BC Hydro to submit an amendment to an approved IRP. BC Hydro notes that the decision to submit an amendment prior to the next IRP will depend on a number of factors including LNG final investment decisions, changes to BC government policy, significant load forecast changes or other issues that may require First Nations consultation and stakeholder input. It is recommended that BC Hydro develop processes for ongoing engagement of First Nations on resource planning issues between formal reviews of the IRP.

Appendix 3 – Letters received from First Nations

October 18, 2013

Attention: integrated.resource.planning@bchydro.com

Re: August 2, 2013 Draft Integrated Resource Plan (IRP)

Having reviewed the above, It is clear that BC Hydro was inspired politically and legally by the Minister of Energy and Mines to design and initiate a First Nation "consultation process" to consider and comment on provincial objectives articulated in the Draft IRP.

Unfortunately, Khowutzun Development Corporation (KDC), on behalf of Cowichan Tribes, is unable to comment specifically on your broad strategic energy objectives and hereby must declare that Cowichan Tribes is not satisfied at this time that they have been consulted relative to the consultation objectives sought to be achieved within your Draft IRP FN Consultation strategy. We further express that our formal reply to any energy initiative that would impact Cowichan Tribes would need to be reviewed under a recognized referral process.

However, given that other First Nations took the opportunity to share general concerns in the Draft IRP, KDC hereby desires to remind and express that political and process clarity is required and sought by First Nations generally and KDC specifically in order to pursue Waste to Energy solutions on First Nations lands / Cowichan Tribes Lands that produce economic opportunities for Cowichan Tribes.

KDC is reviewing specific energy aspirations that are appropriately pursued within Standing Offer capacity parameters in the Clean Energy Act and further defined in the Standing Offer Program managed by BC Hydro. To achieve KDC economic opportunity objectives, KDC requires on-going legislative and policy clarity from the Minister of Energy and Mines and BC Hydro, respectively, to ensure that the legislated Standing Offer Program maintained by the delegated authority is preserved for Waste to Energy projects pursued by First Nations and that associated legislative objectives articulated in the Clean Energy Act continue to inspire energy purchase agreement streamlining at the authority level.

KDC believes that the spirit of the Clean Energy Act is appropriate to stimulate energy solutions with active and meaningful participation from First Nations such as Cowichan Tribes. KDC desires to be comforted that the Minister of Energy and Mines and BC Hydro are equally committed to maintain access to energy opportunities through legislative and policy access initiatives for First Nations found in the current Clean Energy Act, and in any future revisions, and further declare and clarify such objectives in the Final Draft IRP submitted to the Minister of Energy and Mines.

Regards,

Chief Harvey Alphonse,
President – Khowutzun Development Corporation

CC. Minister of Energy and Mines

Daylu Dena Council

Box 10
Lower Post, B.C.
V0C 1W0

Tel: (250) 779-3161
Fax: (250) 779-3371
reception@dayludenacouncil.com

October 3, 2013

Hon.Christy Clark
Premier of British Columbia
PO BOX 9041 STN PROV GOVT
Victoria BC V8W 9E1

Minister Bill Bennett
Minister of Energy and Mines
PO BOX 9060, STN PROV GOVT
Victoria BC V8W 9E2

Dear Premier Clark and Minister Bennett:

RE: First Nations Vision for Clean Energy Development in BC

Clean energy has become an increasingly important part of First Nations economic development within British Columbia. First Nations have played a leading role in independent Power development within British Columbia. Impact Benefit Agreements have been negotiated with numerous First Nations across the province. First Nations have taken equity position and worked to ensure sustainable development has occurred.

In 2007, a group of First Nations led negotiations with the Province to create the First Nations Clean Energy Business Fund. In 2011, a memorandum of Understanding between Clean Energy BC and various First Nations was signed. First Nations across this Province are becoming increasingly involved in this sector, working in conjunction with industry to ensure sustainable development and to maximize benefits to their communities.
Given this, we were dismayed to read that the recently released BC Hydro Integrated Resource Plan (IRP) failed to address, in anyway, the desires or expectation's of First Nations across the province. The plan, by and large, has no role for First Nations and extremely limited opportunities for new procurement.
This directly contradicts your Mandate letters to Ministers including:

Natural Gas (Minister Coleman)
Ministerial Initiative No. 3-" Maximize the use of clean power in LNG projects while preserving maximum provincial revenue generation opportunities."

Aboriginal (Minister Rustad)
Ministerial Initiative No. 3- " Work with BC First Nations that are impacted by natural extractions extraction, pipeline or LNG facilities to ensure they are provided with the ability to participate in this generational opportunity."

Aboriginal (Minister Rusted)
Ministerial Initiative No. 3- Work with BC First Nations that are impacted by natural extraction, pipelines or LNG facilities to ensure they are provided with the ability to participate in this generational opportunity"

Environment (Minister Polak)
Ministerial initiative No.5- " Work with the Minister of Natural Gas Development, ensure that LGN Operations in British Columbia are the cleanest in the world"

Energy (Minister Bennett)
Ministerial initiative No. 5- "Work with the Clean Energy sector to ensure that there remain significant opportunities for renewable energy companies to provide power to British Columbia."

Furthermore, 70 First Nations have received $4million from BC''s First Nations Clean Energy Business fund for feasibility analysis, planning and equity investments to participate in the clean energy business. Obviously, if this plan were to be approved it would pre-emptively eliminate First Nations further involvement in the independent Power Producer (IPP) sector for many years to come. We have a different vision for our future.

First Nations have two proposals, which are of particular relevance to the IRP. **First, First Nations recommend that at least fifty percent of the energy used to Power new LNG plants should be produced using clean energy**. This will assist in offsetting the greenhouse gas (GHG) emissions created, as well as creating substantial economic opportunities for First Nations communities. If most of the LNG and northern development plans derive their power from gas drives, the environmental impacts could be unacceptable to the First Nations. Some 75 million tonnes of GHGs along with unacceptable levels of NX and SX and PMTs could be in our future. BC's legislated 202 GHG target is 45 million tonne. Further, BC hydro suggests that their own assets such as site C should meet energy demands. This leaves no room for First Nations involvement in the IPP sector; in some areas, this greatly impacts the plans for First Nations to close the socio-economic gap. This is unacceptable.

Second, greater opportunities should be created for the First Nation involvement in the IPP sector. A First Nations "prescribed" level of participation should be required in any call. The current BC Hydro Standing Offer Program should also be revised to new significant economic opportunities while also meeting other demands as mentioned above.

In our view BC's approach to energy development should:

Protect the Environment- cleanest power options
Create Economic Development- First Nations must have robust opportunities, and
Build Lasting Legacies- building infrastructure such as transmission lines.

We are seeking your commitment to work collaboratively with First Nations leadership including the Fist Nations Leadership Council to maximize our opportunities in the energy sector.

Signed on behalf of the **Daylu Dena Council**

CC. First Nations Summit Political Executive
Union of BC Indian Chiefs Executive
BC Assembly of First Nations Regional Chief Jody Wilson-Raybould
First Nations Energy and Mining Council
Clean Energy BC

Ditidaht First Nation

PO Box 340 Port Alberni, BC V9Y 7M8 Tel.: (250) 745-3333 Fax: (250) 745-3332
Toll-free 1-888-745-3366 Email: admin@ditidaht.ca

September 30, 2013

Mr. Doug Little, Vice President,
Energy Planning and Economic Development,
BC Hydro
333 Dunsmuir Street
Vancouver, BC V6B 5R3

In 2007 the Ditidaht First Nation began investing its $1.4 million in feasibility assessment of the proposed Little Nitinat River Hydropower Project. This investment has been made in response to the Standing Offer Program (SOP) and continues to incur potential development costs today. The proposed Integrated Resource Plan will significantly affect the economic opportunity for the Nitinat project and our community.

The proposed Little Nitinat River Hydropower Project represents a significant and unique economic development opportunity for the Ditidaht First Nation. It is a significant opportunity, because it is expected to generate $1.7 million in annual revenue. The majority of the cashflow is projected to occur over the winter period, when other Ditidaht businesses in the timber and tourism sectors typically experience cash shortages. The clean energy project helps us create a more stable and sustainable economy. It is also a unique opportunity, because the Ditidaht will be the lead proponent, if not the sole owner, of the proposed project which means full control over project development, operation and profits, and retaining jobs within the community. Other resource based major projects, such as mining and forestry traditionally provide no or few opportunities for economic benefits or ownership for our Nation nor are they sustainable in our territory.

Economic development opportunities are limited for the Ditidaht First Nation due to our relatively isolated location. Costs and uncertainties in accessing markets often cripples profitability and operation stability. The SOP, on the other hand eliminates such market risks, and provides a stable business opportunity.

The unemployment rate of the Ditidaht is 40%. The BC input-output model published by BC Stats predicts that the proposed Little Nitinat Hydropower Project will generate total of 112 person-years of direct and indirect employment in our community. Incremental benefits of the project, which hinges on continuing existence of the SOP is significant in the region.

The purpose of this letter is to ask that the SOP continue in its present form so that we are able to realize the benefits of our investment and also have the opportunity to pursue other small, community owned clean energy projects in the future.

Lastly, we ask that the IRP include consideration of community-owned generation, specifically First Nations. Other jurisdictions, such as Ontario recognize the values of partnering with First Nations communities, and monetize these values through a rate premium. We would like to see the IRP address this issue and consider options such as direct support, an energy pricing premium, or support of network upgrades to allow interconnection of First Nations community owned clean energy facilities.

Yours sincerely,

Jack Thompson
Chief Councillor

Gitanyow Band Council
P.O. Box 340 Kitwanga, B.C., V0J-2A0
Phone: (250) 849-5222 Fax: (250) 849-5787

October 3, 2013

Charlie Weiler

Acting Manager, Legal and Regulatory

Integrated Resource Plan

BC Hydro, Aboriginal Relations

6911 Southpoint Dreive, 10th Floor

Burnaby, BC, V3N 4X8

Via email: 2013irp@bchydro.com

Re: First Nations' Vision for Clean Energy Development in BC and BC Hydro Integrated Resource Plan

We are writing in response to the revised BC Hydro Integrated Resource Plan. Clean energy has become an increasingly important part of First Nations economic development within British Columbia. First Nations have played a leading role in Independent Power development within British Columbia. Impact Benefit Agreements (IBAs) have been negotiated with numerous First Nations across the province, and First Nations have taken equity or ownership positions in many projects.

In 2007, a group of First Nations led negotiations with the Province to create the First Nations Clean Energy Business Fund. The fund was intended to facilitate First Nations involvement in the clean energy sector and help First Nations explore opportunities for clean energy development. In 2011, a Memorandum of Understanding between Clean Energy BC and various First Nations was also signed to ensure First Nations opportunities and involvement in this sector. First Nations across this province are becoming increasingly reliant on this sector and are working in conjunction with industry to ensure sustainable development and maximize benefits for their communities.

Gitanyow Band Council
P.O. Box 340 Kitwanga, B.C., V0J-2A0
Phone: (250) 849-5222 Fax: (250) 849-5787

We were dismayed to read that the recently released BC Hydro Integrated Resource Plan (IRP) failed to address, in any way, the desire and expectation of First Nations across the Province to be involved in the continued growth of the clean energy sector. This is of particular surprise, as the May 2012 draft, which underwent consultation with First Nations, recommended the development of a clean energy procurement process to acquire an additional 2,000 GWh/yr of clean energy by 2018. The most recent draft eliminates this recommendation. The current IRP, by and large, has no role for First Nations and only extremely limited opportunities for new procurement. This contradicts the Premier's directions to Ministers including the Minister of Aboriginal Relations and Reconciliation (MARR), the Clean Energy Act, and the BC Jobs Plan.

Letters to Ministers

The IRP, as currently drafted, directly contradicts the Premier's mandate letters to Ministers including:

Natural Gas (Minister Coleman).

Ministerial Initiative No. 3 – "*Maximize the use of clean power in LNG projects while preserving maximum provincial revenue generation opportunities*"

Aboriginal (Minister Rustad)

Ministerial Initiative No. 3 – "*Work with BC First Nations that are impacted by natural extraction, pipelines or LNG facilities to ensure they are provided with the ability to participate in this generational opportunity*"

Environment (Minister Polak)

Ministerial Initiative No. 5 – "*Work with the Minister of Natural Gas Development, ensure that LNG Operations in British Columbia are the cleanest in the world*"

Energy (Minister Bennett)

Ministerial Initiative No. 8 – "*Work with the Clean Energy sector to ensure that there remain significant opportunities for renewable energy companies to provide power to British Columbia*"

Gitanyow Band Council
P.O. Box 340 Kitwanga, B.C., V0J-2A0
Phone: (250) 849-5222 Fax: (250) 849-5787

Clean Energy Act

The IRP, as currently drafted, also directly contradicts or side steps the Clean Energy Act, which set objectives including:

- Generating at least 93% of all electricity from clean or renewable resources in British Columbia.
- Using clean or renewable resources to help achieve provincial greenhouse has (GHG) reduction targets.

BC Jobs Plan

The BC Jobs Plan identified "Technology, Clean Tech and Green Economy" as one of the eight critical sectors for BC's growth, and the Province committed to working with communities and industries to develop strategies to create economic opportunities in these sectors. The IRP effectively eliminates much of the potential clean energy development in BC, flying in the face of this commitment.

Further, the Jobs Plan committed to:

- "Improve relationships between Aboriginal communities, industry and government, as well as help implement practical measures for economic development...[and] enhance Aboriginal peoples' capacity for economic participation..."

Clean energy development, we believe, partially meets these objectives.

MARR

In a letter dated June 10, 2013, the Premier directed Minister Rustad to, "keep your ministry focused on the BC Jobs Plan". As noted above, we believe the IRP will not meet the objectives of the Jobs Plan. Further, the following initiative was also set for MARR, to "Work with BC First Nations to ensure they participate in the Standing Offer Program by BC Hydro through the First Nations Clean Energy Business Fund". As the Standing Offer Program (SOP) is limited to projects under 15 MW this will severely impact potential opportunities for First Nations. Further, the SOP was unilaterally revised and requirements restricted in the IRP, further restricting opportunities for First Nations. There needs to be a systematic consultation process with First Nations to ensure that opportunities are maximized and Minister Rustad can execute the direction provided by the Premier.

The IRP could also drastically impact existing First Nations clean energy projects. The relationships built and approvals granted by First Nations for these projects were premised on the expectation that the projects would supply long-term energy to BC Hydro. The IRP indicates that only 75% of Electricity Purchase Agreements (EPAs) for small hydro projects will be renewed. We assume BC will compensate First Nations for the lost revenue, revenue provided as compensation for impacts to our title and rights. Further, the IRP indicates the BC Hydro intends to cancel many of the existing EPAs, EPAs which many First Nations are relying upon for economic development. Both of these proposals do not meet the objectives outlined in the Clean Energy Act, BC Jobs Plan, or the letters to the Ministers.

Further, 70 First Nations have received $4million from BC's First Nations Clean Energy Business fund for feasibility analysis, planning and equity investments to participate in the clean energy sector. In addition, these First Nations have invested their own capital and time into the analysis and planning of projects. If the IRP is approved it will pre-emptively eliminate future First Nations involvement in the clean energy sector for many years to come and result in the loss of much of the effort and capital invested to date. First Nations like shishalh, Sts'ailes, Squamish, Sliammon, Klahoose, Kwakiutl, Namgis, Tahltan, Halfway River, West Moberly, Kitselas, Lil'wat, Hupacasath, Taku Tlingit, and many others have invested heavily in building their expertise and experience in the clean energy sector - several as owners and developers of projects. Our vision for the future differs significantly from the IRP.

Support for Clean Energy

Support for clean energy has been seen at the provincial level from First Nations and local governments. The First Nations Summit, on September 27 resolved, "That the First Nations Summit Executive engage leadership from the Province and BC Hydro to ensure that the Integrated Resource Plan is revised to include reflections of First Nations input." In addition, recently the Union of BC Municipalities (UBCM) endorsed a resolution stating that, "in order to remain globally competitive in a fast changing world, the federal government be requested to work with the UBCM and Federation of Canadian Municipalities (FCM), to develop a new energy strategy prioritizing green-sector jobs and clean energy innovation". The IRP, as currently drafted, does not prioritize green-sector jobs or clean energy innovation. Wealth creation opportunities should put First Nations and local communities first, allowing dividends and success to flow to local communities.

Our Vision

Gitanyow Band Council
P.O. Box 340 Kitwanga, B.C., V0J-2A0
Phone: (250) 849-5222 Fax: (250) 849-5787

We have two proposals that are of particular relevance to the IRP. **First, at least 50 percent of the energy used to power new LNG plants should be produced using clean energy.** This will assist in off-setting the greenhouse gas emissions created, as well as create substantial economic opportunities for First Nations communities.

If planned LNG projects and northern development are entirely powered by gas-fired generation, the environmental impacts will be unacceptable to First Nations. Some 75 million tonnes of GHGs along with unacceptable levels of nitrous oxides, sulphur oxides and particulate matter could be in our future. BC's legislated 2020 GHG target is 45 million tonnes. In addition, if BC secures four LNG plants, as stated by Minister Coleman, the equivalent electrical power needed could be between 30,000 to 50,000 GWh of energy; however, the IRP is only planning for a load of 3,000 GWh. BC Hydro suggests that the energy demand should be met by on-site gas-fired generation and BC Hydro assets such as Site C. Underestimating the potential for LNG and northern development load, as well as relying on BC Hydro assets and on-site generation greatly reduces the room for First Nations involvement and eliminates the possibility to spread the employment and economic benefits associated with LNG projects around the province. In some areas, this will greatly impact First Nations plans to close the socio-economic gap. This is unacceptable, particularly when clean energy options exist.

Second, greater opportunities should be created for First Nations involvement in the clean energy sector. A First Nations "prescribed" level of participation should be required in any clean power call or a specific First Nation clean power call launched. The current BC Hydro Standing Offer Program should be revised to require First Nations participation or to allow for prioritized access to procurement or enhanced capacity for projects where such participation exists. Creating a First Nations call for power would create new significant economic opportunities while meeting other demands, as mentioned above.

More generally, BC's approach to energy development and the IRP must first and foremost, protect the environment by utilizing the cleanest power options possible. Second, it must ensure First Nations have robust opportunities to participate in energy development projects on our lands.

BC Hydro IRP Comment Form

Gitanyow Band Council
P.O. Box 340 Kitwanga, B.C., V0J-2A0
Phone: (250) 849-5222 Fax: (250) 849-5787

Supporting LNG: We support the development of clean energy and believe as stated that, if these projects are to proceed, at least 50% of the energy needed to power these plants should be provided by clean energy.

Conserving First: We support the use of energy conversation measures; however, we believe that these measures should be paired with responsible and sustainable IPP development.

Powering Tomorrow: We do not believe that relying on BC Hydro proposed projects such as Site C or the historic infrastructure projects is appropriate. IPP development can be critical to economic development within First Nations communities. The SOP, as currently drafted, is not sufficient to provide for economic opportunities.

Managing Resources: the current draft of the IRP, as stated above, does not meet the objectives of the Clean Energy Act or our vision of the future. We strongly disagree with BC Hydro's proposed management of resources.

Conclusion

We are seeking the BC Hydro's commitment to work collaboratively with First Nations including the First Nations Leadership Council to maximize our opportunities in the energy sector. Furthermore, we seek assurance that additional and adequate consultation will occur with First Nations leadership prior to approving the BC Hydro Integrated Resource Plan.

Signed on behalf of the Gitanyow Band:

Chief Councilor

cc.

Minister Rustad, Aboriginal Relations and Reconciliation

Minister Thompson, Forest Lands and Natural Resource Operations

Minister Bennett, Energy and Mines

Gitxsan Energy Inc.

October 18, 2013

Charlie Weiler
Acting Manager, Legal and Regulatory
Integrated Resource Plan
BC Hydro, Aboriginal Relations
6911 Southpoint Dreive, 10th Floor
Burnaby, BC, V3N 4X8
Via email: 2013irp@bchydro.com

Re: First Nations' Vision for Clean Energy Development in BC and BC Hydro Integrated Resource Plan

We are writing in response to the revised BC Hydro Integrated Resource Plan. Clean energy has become an increasingly important part of First Nations economic development within British Columbia. First Nations have played a leading role in Independent Power development within British Columbia. Impact Benefit Agreements (IBAs) have been negotiated with numerous First Nations across the province, and First Nations have taken equity or ownership positions in many projects.

In 2007, a group of First Nations led negotiations with the Province to create the First Nations Clean Energy Business Fund. The fund was intended to facilitate First Nations involvement in the clean energy sector and help First Nations explore opportunities for clean energy development. In 2011, a Memorandum of Understanding between Clean Energy BC and various First Nations was also signed to ensure First Nations opportunities and involvement in this sector. First Nations across this province are becoming increasingly reliant on this sector and are working in conjunction with industry to ensure sustainable development and maximize benefits for their communities.

We were dismayed to read that the recently released BC Hydro Integrated Resource Plan (IRP) failed to address, in any way, the desire and expectation of First Nations across the Province to be involved in the continued growth of the clean energy sector. This is of particular surprise, as the May 2012 draft, which underwent consultation with First Nations, recommended the development of a clean energy procurement process to acquire an additional 2,000 GWh/yr of clean energy by 2018. The most recent draft eliminates this recommendation. The current IRP, by and large, has no role for First Nations and only extremely limited opportunities for new procurement. This contradicts the Premier's directions to Ministers including the Minister of Aboriginal Relations and Reconciliation (MARR), the Clean Energy Act, and the BC Jobs Plan.

Letters to Ministers

The IRP, as currently drafted, directly contradicts the Premier's mandate letters to Ministers including:

> **Natural Gas (Minister Coleman).**
>
> Ministerial Initiative No. 3 – "*Maximize the use of clean power in LNG projects while preserving maximum provincial revenue generation opportunities*"
>
> **Aboriginal (Minister Rustad)**
> Ministerial Initiative No. 3 – "*Work with BC First Nations that are impacted by natural extraction, pipelines or LNG facilities to ensure they are provided with the ability to participate in this generational opportunity*"

Environment (Minister Polak)
Ministerial Initiative No. 5 – "*Work with the Minister of Natural Gas Development, ensure that LNG Operations in British Columbia are the cleanest in the world"*

Energy (Minister Bennett)
Ministerial Initiative No. 8 – "*Work with the Clean Energy sector to ensure that there remain significant opportunities for renewable energy companies to provide power to British Columbia"*

Clean Energy Act

The IRP, as currently drafted, also directly contradicts or side steps the Clean Energy Act, which set objectives including:

- Generating at least 93% of all electricity from clean or renewable resources in British Columbia.
- Using clean or renewable resources to help achieve provincial greenhouse has (GHG) reduction targets.

BC Jobs Plan

The BC Jobs Plan identified "Technology, Clean Tech and Green Economy" as one of the eight critical sectors for BC's growth, and the Province committed to working with communities and industries to develop strategies to create economic opportunities in these sectors. The IRP effectively eliminates much of the potential clean energy development in BC, flying in the face of this commitment.

Further, the Jobs Plan committed to:

- "Improve relationships between Aboriginal communities, industry and government, as well as help implement practical measures for economic development…[and] enhance Aboriginal peoples' capacity for economic participation..."

Clean energy development, we believe, partially meets these objectives.

MARR

In a letter dated June 10, 2013, the Premier directed Minister Rustad to, "keep your ministry focused on the BC Jobs Plan". As noted above, we believe the IRP will not meet the objectives of the Jobs Plan. Further, the following initiative was also set for MARR, to "Work with BC First Nations to ensure they participate in the Standing Offer Program by BC Hydro through the First Nations Clean Energy Business Fund". As the Standing Offer Program (SOP) is limited to projects under 15 MW this will severely impact potential opportunities for First Nations. Further, the SOP was unilaterally revised and requirements restricted in the IRP, further restricting opportunities for First Nations. There needs to be a systematic consultation process with First Nations to ensure that opportunities are maximized and Minister Rustad can execute the direction provided by the Premier.

The IRP could also drastically impact existing First Nations clean energy projects. The relationships built and approvals granted by First Nations for these projects were premised on the expectation that the projects would supply long-term energy to BC Hydro. The IRP indicates that only 75% of Electricity Purchase Agreements (EPAs) for small hydro projects will be renewed. We assume BC will compensate First Nations for the lost revenue, revenue provided as compensation for impacts to our title and rights. Further, the IRP indicates the BC Hydro intends to cancel many of the existing EPAs, EPAs which many First Nations are relying upon for economic development. Both of these proposals do not meet the objectives outlined in the Clean Energy Act, BC Jobs Plan, or the letters to the Ministers.

Further, 70 First Nations have received $4million from BC's First Nations Clean Energy Business fund for feasibility analysis, planning and equity investments to participate in the clean energy sector. In addition, these

First Nations have invested their own capital and time into the analysis and planning of projects. If the IRP is approved it will pre-emptively eliminate future First Nations involvement in the clean energy sector for many years to come and result in the loss of much of the effort and capital invested to date. First Nations like shishalh, Sts'ailes, Squamish, Sliammon, Klahoose, Kwakiutl, Namgis, Tahltan, Halfway River, West Moberly, Kitselas, Lil'wat, Hupacasath, Taku Tlingit, and many others have invested heavily in building their expertise and experience in the clean energy sector - several as owners and developers of projects. Our vision for the future differs significantly from the IRP.

Support for Clean Energy

Support for clean energy has been seen at the provincial level from First Nations and local governments. The First Nations Summit, on September 27 resolved, "That the First Nations Summit Executive engage leadership from the Province and BC Hydro to ensure that the Integrated Resource Plan is revised to include reflections of First Nations input." In addition, recently the Union of BC Municipalities (UBCM) endorsed a resolution stating that, "in order to remain globally competitive in a fast changing world, the federal government be requested to work with the UBCM and Federation of Canadian Municipalities (FCM), to develop a new energy strategy prioritizing green-sector jobs and clean energy innovation". The IRP, as currently drafted, does not prioritize green-sector jobs or clean energy innovation. Wealth creation opportunities should put First Nations and local communities first, allowing dividends and success to flow to local communities.

Our Vision

We have two proposals that are of particular relevance to the IRP. **First, at least 50 percent of the energy used to power new LNG plants should be produced using clean energy.** This will assist in off-setting the greenhouse gas emissions created, as well as create substantial economic opportunities for First Nations communities.

If planned LNG projects and northern development are entirely powered by gas-fired generation, the environmental impacts will be unacceptable to First Nations. Some 75 million tonnes of GHGs along with unacceptable levels of nitrous oxides, sulphur oxides and particulate matter could be in our future. BC's legislated 2020 GHG target is 45 million tonnes. In addition, if BC secures four LNG plants, as stated by Minister Coleman, the equivalent electrical power needed could be between 30,000 to 50,000 GWh of energy; however, the IRP is only planning for a load of 3,000 GWh. BC Hydro suggests that the energy demand should be met by on-site gas-fired generation and BC Hydro assets such as Site C. Underestimating the potential for LNG and northern development load, as well as relying on BC Hydro assets and on-site generation greatly reduces the room for First Nations involvement and eliminates the possibility to spread the employment and economic benefits associated with LNG projects around the province. In some areas, this will greatly impact First Nations plans to close the socio-economic gap. This is unacceptable, particularly when clean energy options exist.

Second, greater opportunities should be created for First Nations involvement in the clean energy sector. A First Nations "prescribed" level of participation should be required in any clean power call or a specific First Nation clean power call launched. The current BC Hydro Standing Offer Program should be revised to require First Nations participation or to allow for prioritized access to procurement or enhanced capacity for projects where such participation exists. Creating a First Nations call for power would create new significant economic opportunities while meeting other demands, as mentioned above.

More generally, BC's approach to energy development and the IRP must first and foremost, protect the environment by utilizing the cleanest power options possible. Second, it must ensure First Nations have robust opportunities to participate in energy development projects on our lands.

BC Hydro IRP Comment Form

Supporting LNG: We support the development of clean energy and believe as stated that, if these projects are to proceed, at least 50% of the energy needed to power these plants should be provided by clean energy.

Conserving First: We support the use of energy conversation measures; however, we believe that these measures should be paired with responsible and sustainable IPP development.

Powering Tomorrow: We do not believe that relying on BC Hydro proposed projects such as Site C or the historic infrastructure projects is appropriate. IPP development can be critical to economic development within First Nations communities. The SOP, as currently drafted, is not sufficient to provide for economic opportunities.

Managing Resources: the current draft of the IRP, as stated above, does not meet the objectives of the Clean Energy Act or our vision of the future. We strongly disagree with BC Hydro's proposed management of resources.

Conclusion

We are seeking the BC Hydro's commitment to work collaboratively with First Nations including the First Nations Leadership Council to maximize our opportunities in the energy sector. Furthermore, we seek assurance that additional and adequate consultation will occur with First Nations leadership prior to approving the BC Hydro Integrated Resource Plan.

Signed on behalf of Gitxsan Energy Inc:

Jako Krushniksy

cc.
Minister Rustad, Aboriginal Relations and Reconciliation
Minister Thompson, Forest Lands and Natural Resource Operations
Minister Bennett, Energy and Mines

Haisla Nation Council

PO BOX 1101, HAISLA, BC V0T 2B0 PH: (250) 639-9361 FAX (250)632-2840

Fax Cover Letter

Date: October 17, 2013

From: Carolyn Ringham for Ellis Ross

Our Fax Number: (250) 632-2840

TO:

Name: Charlie Weiler, Acting Manager

Legal & Regulatory, Integrated Resource Plan

Firm: BC Hydro, Aboriginal Relations

Fax Number: (604) 528-2822

We are transmitting pages 4 (including cover page). If you do not receive all pages, please call our offices at (250) 639-9361 or 1-888-842-4752 and ask for the person named as fax operator.

☐Confidential; ☐ Urgent: ☐Written Copy to Follow by Mail: ☐ For Your Info Only:

Message:

Re: Written Comment on BC Hydro's Integrated Resource Plan

Haisla Nation Council
HAISLA PO BOX 1101, KITAMAAT VILLAGE, BC V0T 2H0 TELEPHONE (250) 639-9361 FAX (250) 632-2040

October 17, 2013

VIA FAX TO: (604) 528-2822

BC Hydro
Aboriginal Relations
6911 Southpoint Drive, 10th Floor
Burnaby, BC V3N 4X8

Attention: Charlie Weiler, Acting Manager
Legal & Regulatory, Integrated Resource Plan

Dear Sirs/Mesdames:

Re: Written Comment on BC Hydro's Integrated Resource Plan

We are writing in reply to your August 29, 2013 letter advising us of a written comment period on BC Hydro's Integrated Resource Plan (the "IRP"), and directing us to the BC Hydro website for access to the IRP.

I. Consultation

We have reviewed the Integrated Resource Plan materials provided at the BC Hydro website (www.bchydro.com/irp) and are writing to provide our comments.

The Haisla Nation does not view the opportunity to provide comments on the IRP as consultation with BC Hydro with respect to impacts of BC Hydro operations in Haisla Nation Territory. We have previously set out our concerns with the process and refer you to our letter of June 10, 2011.

The Haisla Nation is optimistic, however, that BC Hydro will be responsive to information provided by the Haisla Nation and other First Nations in this information gathering endeavour.

II. North Coast Transmission Planning Considerations – Line 2L99 Connecting Minette Substation at Kitimat to SKA at Terrace

In the discussion of North Coast Transmission Planning Considerations (Chapter 6, page 6-56, s. 6.5.3) the IRP states that Line "2L99 is near the end of life and would likely require upgrades or replacement regardless of LNG loads at Kitimat".

Line 2L99 passes through Haisla Nation Territory. Any anticipated upgrades or replacement that may result in impacts to Haisla Nation land, waters and resources will require consultation with the Haisla Nation.

The IRP also refers to other potential regional upgrades, and identifies that regional transmission requirements will be further studied as part of LNG load interconnection studies. With the anticipated future construction of numerous LNG projects in the Kitimat area, we anticipate that such interconnection studies will take place, and expect to be fully engaged by BC Hydro in appropriate studies.

III. LNG and the North Coast – Supply Options

The IRP discussion of alternative dependable capacity options in the North Coast refers to pumped storage, biomass and gas-fired generation. There is no reference to hydro-electric generation (except as support facilities for line maintenance to address transmission maintenance issues).

As you may know, the Haisla Nation has interests in potential independent power projects in its Territory. We question why run of river hydro-electric projects were not considered.

The IRP concludes that natural gas-fired generation is the only available cost-effective option to build dependable capacity locally in the North Coast. Given the location of proposed LNG projects, we anticipate that local gas-fired generation would likely be built in Haisla Nation Territory. We trust that BC Hydro will fully and meaningfully consult with the Haisla Nation prior to undertaking or facilitating any such projects.

IV. Pumped Storage – North Coast

We have reviewed the North Coast Pumped Storage Assessment (Appendix 3A-30) and note that a high number of both the pumped storage sites for 16 hours of continuous generation and the pumped storage sites for 48 hours of continuous generation are located in Haisla Nation Territory, including at Kitimat River, Hirsch Creek and Jesse Creek.

The creation of new reservoirs for the purposes of pumped storage raises obvious concerns for the Haisla Nation. The flooding of new areas of land in our Territory would likely result in significant adverse impacts on the exercise of our Aboriginal rights and title.

We note that BC Hydro has concluded that pumped storage is not cost-effective at this point in time. This may change in the future. We trust that BC Hydro will fully and meaningfully consult with the Haisla Nation prior to undertaking or facilitating any such projects.

V. Conclusions

We appreciate the opportunity to provide comments to BC Hydro on the Province-wide IRP. This is not a substitute, however, for meaningful engagement with the Haisla Nation on BC Hydro operations in Haisla Nation Territory. We continue to have significant issues in our Territory concerning electrical generation and transmission.

In addition, while the consideration of pumped storage in Haisla Nation Territory appears to be on hold for now, the potential for locally-based gas-fired generation appears to be quite real. The Haisla Nation expects to be further engaged by BC Hydro in relation to the totality of its infrastructure development plans in Haisla Nation Territory, including any transmission line upgrades and gas-fired generation.

We ask that a meeting between the Haisla Nation and BC Hydro be scheduled at your earliest opportunity to commence a meaningful engagement process to discuss:

- transmission
- generation
- our IPP projects
- revenue sharing
- compensation for past impacts.

Yours truly,

for Councillor

Ellis Ross, Chief Councillor

cc: Charles Reid, President & CEO
BC Hydro
By fax: (604) 623-4459

Hupacasath First Nation
5500 Ahahswinis Drive
PO Box 211
Port Alberni, BC V9Y 7M7
Tel: 250-724-4041
Fax: 250-724-1232

September 30, 2013

BC Hydro

Charles Reid, CEO/President
333 Dunsmuir
Vancouver, B.C.
V6B 5R3

Dear Mr. Reid

Re: Integrated Resource Plan 2013

I am writing you to comment on the Integrated Resources Plan -2013 (IRP) which is the foundation of BC Hydro's planning and forecasting for power needs for BC now and the future. Although the plan allows for change in the form of updating every five years as information and needs change, the current plan is detrimental to the continued opportunity for communities like ours to participate in future Clean Energy Power Production.

For the past decade Independent Power Production (IPP) developers saw the opportunity, value and ability to quickly stakeout and acquire the most viable and valuable water licenses in First Nation's Territories with little or no consultation. The overwhelming request for referrals and lack of capacity by most communities resulted in few viable power production water licenses remaining for First Nations applications. Knowing the value of these easily acquired and low cost licenses gave these opportunists the ability to ensure their stake in each project with little risk. Although we recognize that the BC Government, BC Hydro and Clean Energy BC recognized this issue and created new policies for greater First Nation's participation it was at the end of the water license acquisition frenzy! As a result of the water license acquisitions undertaken by private parties in the know there are very few opportunities left for First Nations communities. These water license holders can maintain ownership of these licenses in perpetuity with little additional compliance obligations. This needs to change! We need to reopen the water license tenures through a series of activation time limits with lack of progress requiring expiration of the license and a process for new stakeholders to take advantage of the newly created licensing acquisitions which will require consultation and accommodation.

Hupacasath First Nation

5500 Ahahswinis Drive
PO Box 211
Port Alberni, BC V9Y 7M7
Tel: 250-724-4041
Fax: 250-724-1232

We have several water licenses granted in our territory and find it a long, costly endeavor to negotiate with the holders to make any significant progress in new projects often resulting in the holder as a revenue sharing partner or equity stakeholder for little more than acquiring the water license and keeping it in standing for a decade or more. Any application that is not advanced should have a sunset period and be terminated if not activated, and the ability to acquire should require First Nation's accommodation and participation.

Development of IPP's in First Nation's Territories should require consultation and accommodation as a minimum required step including participation and ownership of water licenses. Concepts such as revenue sharing and equity participation remain an elusive dream for most First Nations. The Municipal Financing Authority provides preferential financing terms for municipalities and regional governments across BC and there should some equitable option for First Nations with own source revenues capable of such unwritten loans to make projects more viable under your model. The equity grants of a meaningful size should be awarded to First Nations to ensure participation of First Nations. The spin offs are clear. Clean Energy, jobs, community development and revenue streams to communities while providing the BC Hydro customers with clean efficient energy production and reasonable cost.

Hupacasath has a viable producing project that has been hampered by high financing and equity requirements which may see the consistent production of inexpensive clean energy with little or no income to the community over its 20 year EPA. Without the firm commitment of a new viable EPA after our expiration the project only benefit to BC hydro and the BC Hydro consumers. The case by case review and negotiation of new EPA is not re assuring for a project to invest in additional infrastructure to improve efficiency if there is no expected return on investment.

The Request for Proposals (RFP) process is inherently flawed. It is complex, cumbersome and creates false expectations. The project impacts are significant. There should be mechanisms incorporated into all future call for power production supply from the market which requires consultation, accommodation and participation from projects planned in traditional territories of First Nations. Subject to market demand for new clean energy communities can determine the clear path forward for addressing the projects including the Electricity Purchase Agreements (EPAs). Often EPA's are awarded in advance of proper conclusive and in-depth due diligence with a list of required steps to ensure impacts and outcomes are understood and assured. We had such an experience with our Corrigan Creek EPA. The lack of proper Hydrology Assessments have resulted in punitive charges and actions against the community for not concluding there were fish in the systems impacted by the project the mitigation of which made the project not a viable project to proceed.

Hupacasath First Nation

5500 Ahahswinis Drive
PO Box 211
Port Alberni, BC V9Y 7M7

Tel: 250-724-4041
Fax: 250-724-1232

Lastly, the expansion of transmission infrastructure and lines should include opportunities consultation and accommodation for First Nations. The intricate web of new transmission infrastructure needs to work with First Nations communities recognizing their stake and opportunity to participate in the installation, maintenance and operations.

We would like to see a prescribed level of First Nations participation in the clean energy projects enshrined in the Independent Power Producers (IPP), Standing Offer Program (SOP) and Requests for Proposals, (RFP) programs. We would like to see the continuation of these programs to provide opportunities for revenue, jobs and economic benefits in communities while providing reliable clean energy production for BC Hydro and BC Hydro customers.

Regards

Chief Councilor Steven Tatoosh
Hupacasath First Nation
Chairman – Upnit Power Corporation
5500 Ahahswinis Drive
Port Alberni, BC
V9Y 7M7

Phone 250-724-4041
Fax 250-724-1232

Huu-ay-aht First Nations
Government Office: 170 Nookemus Rd, Anacla, BC
t: 250.728.3414 / 888.644.4555 f: 250.728.1222
Mailing Address: 3483 - Third Ave., Port Alberni, BC V9Y4E4
t: 250.723.0100 f: 250.723.4646
reception@huuayaht.org / www.huuayaht.org

October 7, 2013

COPY

Charlie Weiler
Acting Manager, Legal and Regulatory
Integrated Resource Plan
BC Hydro, Aboriginal Relations
6911 Southpoint Drive, 10th Floor
Burnaby, BC, V3N 4X8
Via email: 2013irp@bchydro.com

Re: First Nations' Vision for Clean Energy Development in BC and BC Hydro Integrated Resource Plan

We are writing in response to the revised BC Hydro Integrated Resource Plan. Clean energy has become an increasingly important part of First Nations economic development within British Columbia. First Nations have played a leading role in Independent Power development within British Columbia. Impact Benefit Agreements (IBAs) have been negotiated with numerous First Nations across the province, and First Nations have taken equity or ownership positions in many projects.

In 2007, a group of First Nations led negotiations with the Province to create the First Nations Clean Energy Business Fund. The fund was intended to facilitate First Nations involvement in the clean energy sector and help First Nations explore opportunities for clean energy development. In 2011, a Memorandum of Understanding between Clean Energy BC and various First Nations was also signed to ensure First Nations opportunities and involvement in this sector. First Nations across this province are becoming increasingly reliant on this sector and are working in conjunction with industry to ensure sustainable development and maximize benefits for their communities.

We were dismayed to read that the recently released BC Hydro Integrated Resource Plan (IRP) failed to address, in any way, the desire and expectation of First Nations across the Province to be involved in the continued growth of the clean energy sector. This is of particular surprise, as the May 2012 draft, which underwent consultation with First Nations, recommended the development of a clean energy procurement process to acquire an additional 2,000 GWh/yr of clean energy by 2018. The most recent draft eliminates this recommendation. The current IRP, by and large, has no role for First Nations and only extremely limited opportunities for new procurement. This contradicts

Huu-ay-aht First Nations
Government Office: 170 Nookemus Rd, Anacla, BC
t: 250.728.3414 / 888.644.4555 f: 250.728.1222
Mailing Address: 3483 - Third Ave., Port Alberni, BC V9Y4E4
t: 250.723.0100 f: 250.723.4646
reception@huuayaht.org / www.huuayaht.org

the Premier's directions to Ministers including the Minister of Aboriginal Relations and Reconciliation (MARR), the Clean Energy Act, and the BC Jobs Plan.

Letters to Ministers
The IRP, as currently drafted, directly contradicts the Premier's mandate letters to Ministers including:

> **Natural Gas (Minister Coleman).**
> Ministerial Initiative No. 3 – "*Maximize the use of clean power in LNG projects while preserving maximum provincial revenue generation opportunities*"
>
> **Aboriginal (Minister Rustad)**
> Ministerial Initiative No. 3 – "*Work with BC First Nations that are impacted by natural extraction, pipelines or LNG facilities to ensure they are provided with the ability to participate in this generational opportunity*"
>
> **Environment (Minister Polak)**
> Ministerial Initiative No. 5 – "*Work with the Minister of Natural Gas Development, ensure that LNG Operations in British Columbia are the cleanest in the world*"
>
> **Energy (Minister Bennett)**
> Ministerial Initiative No. 8 – "*Work with the Clean Energy sector to ensure that there remain significant opportunities for renewable energy companies to provide power to British Columbia*"

Clean Energy Act
The IRP, as currently drafted, also directly contradicts or side steps the Clean Energy Act, which set objectives including:

- Generating at least 93% of all electricity from clean or renewable resources in British Columbia.
- Using clean or renewable resources to help achieve provincial greenhouse has (GHG) reduction targets.

Huu-ay-aht First Nations
Government Office: 170 Nookemus Rd, Anacla, BC
t: 250.728.3414 / 888.644.4555 f: 250.728.1222
Mailing Address: 3483 - Third Ave., Port Alberni, BC V9Y4E4
t: 250.723.0100 f: 250.723.4646
reception@huuayaht.org / www.huuayaht.org

BC Jobs Plan

The BC Jobs Plan identified "Technology, Clean Tech and Green Economy" as one of the eight critical sectors for BC's growth, and the Province committed to working with communities and industries to develop strategies to create economic opportunities in these sectors. The IRP effectively eliminates much of the potential clean energy development in BC, flying in the face of this commitment.

Further, the Jobs Plan committed to:

- "Improve relationships between Aboriginal communities, industry and government, as well as help implement practical measures for economic development...[and] enhance Aboriginal peoples' capacity for economic participation..."

Clean energy development, we believe, partially meets these objectives.

MARR

In a letter dated June 10, 2013, the Premier directed Minister Rustad to, "keep your ministry focused on the BC Jobs Plan". As noted above, we believe the IRP will not meet the objectives of the Jobs Plan. Further, the following initiative was also set for MARR, to "Work with BC First Nations to ensure they participate in the Standing Offer Program by BC Hydro through the First Nations Clean Energy Business Fund". As the Standing Offer Program (SOP) is limited to projects under 15 MW this will severely impact potential opportunities for First Nations. Further, the SOP was unilaterally revised and requirements restricted in the IRP, further restricting opportunities for First Nations. There needs to be a systematic consultation process with First Nations to ensure that opportunities are maximized and Minister Rustad can execute the direction provided by the Premier.

The IRP could also drastically impact existing First Nations clean energy projects. The relationships built and approvals granted by First Nations for these projects were premised on the expectation that the projects would supply long-term energy to BC Hydro. The IRP indicates that only 75% of Electricity Purchase Agreements (EPAs) for small hydro projects will be renewed. We assume BC will compensate First Nations for the lost revenue, revenue provided as compensation for impacts to our title and rights. Further, the IRP indicates the BC Hydro intends to cancel many of the existing EPAs, EPAs which many First Nations are relying upon for economic development. Both of these proposals do not meet the objectives outlined in the Clean Energy Act, BC Jobs Plan, or the letters to the Ministers.

Huu-ay-aht First Nations
Government Office: 170 Nookemus Rd, Anacla, BC
t: 250.728.3414 / 888.644.4555 f: 250.728.1222
Mailing Address: 3483 - Third Ave., Port Alberni, BC V9Y4E4
t: 250.723.0100 f: 250.723.4646
reception@huuayaht.org / www.huuayaht.org

Further, 70 First Nations have received $4million from BC's First Nations Clean Energy Business fund for feasibility analysis, planning and equity investments to participate in the clean energy sector. In addition, these First Nations have invested their own capital and time into the analysis and planning of projects. If the IRP is approved it will pre-emptively eliminate future First Nations involvement in the clean energy sector for many years to come and result in the loss of much of the effort and capital invested to date. First Nations like shishalh, Sts'ailes, Squamish, Sliammon, Klahoose, Kwakiutl, Namgis, Tahltan, Halfway River, West Moberly, Kitselas, Lil'wat, Hupacasath, Taku Tlingit, and many others have invested heavily in building their expertise and experience in the clean energy sector - several as owners and developers of projects. Our vision for the future differs significantly from the IRP.

Support for Clean Energy

Support for clean energy has been seen at the provincial level from First Nations and local governments. The First Nations Summit, on September 27 resolved, "That the First Nations Summit Executive engage leadership from the Province and BC Hydro to ensure that the Integrated Resource Plan is revised to include reflections of First Nations input." In addition, recently the Union of BC Municipalities (UBCM) endorsed a resolution stating that, "in order to remain globally competitive in a fast changing world, the federal government be requested to work with the UBCM and Federation of Canadian Municipalities (FCM), to develop a new energy strategy prioritizing green-sector jobs and clean energy innovation". The IRP, as currently drafted, does not prioritize green-sector jobs or clean energy innovation. Wealth creation opportunities should put First Nations and local communities first, allowing dividends and success to flow to local communities.

Our Vision

We have two proposals that are of particular relevance to the IRP. **First, at least 50 percent of the energy used to power new LNG plants should be produced using clean energy.** This will assist in off-setting the greenhouse gas emissions created, as well as create substantial economic opportunities for First Nations communities.

If planned LNG projects and northern development are entirely powered by gas-fired generation, the environmental impacts will be unacceptable to First Nations. Some 75 million tonnes of GHGs along with unacceptable levels of nitrous oxides, sulphur oxides and particulate matter could be in our future. BC's legislated 2020 GHG target is 45 million tonnes. In addition, if BC secures four LNG plants, as stated by Minister Coleman, the equivalent electrical power needed could be between 30,000 to 50,000 GWh of energy; however, the IRP is only planning for a load of 3,000 GWh. BC Hydro suggests that the energy demand should be met by on-site gas-fired generation and BC

Huu-ay-aht First Nations
Government Office: 170 Nookemus Rd, Anacla, BC
t: 250.728.3414 / 888.644.4555 f: 250.728.1222
Mailing Address: 3483 - Third Ave., Port Alberni, BC V9Y4E4
t: 250.723.0100 f: 250.723.4646
reception@huuayaht.org / www.huuayaht.org

Hydro assets such as Site C. Underestimating the potential for LNG and northern development load, as well as relying on BC Hydro assets and on-site generation greatly reduces the room for First Nations involvement and eliminates the possibility to spread the employment and economic benefits associated with LNG projects around the province. In some areas, this will greatly impact First Nations plans to close the socio-economic gap. This is unacceptable, particularly when clean energy options exist.

Second, greater opportunities should be created for First Nations involvement in the clean energy sector. A First Nations "prescribed" level of participation should be required in any clean power call or a specific First Nation clean power call launched. The current BC Hydro Standing Offer Program should be revised to require First Nations participation or to allow for prioritized access to procurement or enhanced capacity for projects where such participation exists. Creating a First Nations call for power would create new significant economic opportunities while meeting other demands, as mentioned above.

More generally, BC's approach to energy development and the IRP must first and foremost, protect the environment by utilizing the cleanest power options possible. Second, it must ensure First Nations have robust opportunities to participate in energy development projects on our lands.

BC Hydro IRP Comment Form

Supporting LNG: We support the development of clean energy and believe as stated that, if these projects are to proceed, at least 50% of the energy needed to power these plants should be provided by clean energy.

Conserving First: We support the use of energy conversation measures; however, we believe that these measures should be paired with responsible and sustainable IPP development.

Powering Tomorrow: We do not believe that relying on BC Hydro proposed projects such as Site C or the historic infrastructure projects is appropriate. IPP development can be critical to economic development within First Nations communities. The SOP, as currently drafted, is not sufficient to provide for economic opportunities.

Managing Resources: the current draft of the IRP, as stated above, does not meet the objectives of the Clean Energy Act or our vision of the future. We strongly disagree with BC Hydro's proposed management of resources.

Huu-ay-aht First Nations
Government Office: 170 Nookemus Rd, Anacla, BC
t: 250.728.3414 / 888.644.4555 f: 250.728.1222
Mailing Address: 3483 - Third Ave., Port Alberni, BC V9Y4E4
t: 250.723.0100 f: 250.723.4646
reception@huuayaht.org / www.huuayaht.org

Conclusion

We are seeking the BC Hydro's commitment to work collaboratively with First Nations including the First Nations Leadership Council to maximize our opportunities in the energy sector. Furthermore, we seek assurance that additional and adequate consultation will occur with First Nations leadership prior to approving the BC Hydro Integrated Resource Plan.

Signed on behalf of the Huu-ay-aht First Nations:

Jeff Cook
Chief Councillor

cc.
Minister Rustad, Aboriginal Relations and Reconciliation
Minister Thompson, Forest Lands and Natural Resource Operations
Minister Bennett, Energy and Mines

Kanaka Bar Indian Band

October 18, 2013

Charlie Weiler
Acting Manager, Legal and Regulatory
Integrated Resource Plan
BC Hydro, Aboriginal Relations
6911 Southpoint Drive, 10th Floor
Burnaby, BC, V3N 4X8
Via email: 2013irp@bchydro.com

Re: Clean Energy Development in BC and the BC Hydro Integrated Resource Plan

Thank you for your letter dated August 29, 2013 and the opportunity to provide comments on BC Hydro's long term plan to meet BC's forecasted electrical needs.

Kanaka Bar Indian Band aka *T'eqt'aqtn'mux*

We are one of 15 communities that make up the Nlaka'pamux Nation today. We are located 14 kilometres south of Lytton on Highway 1(North end of the Fraser Canyon).

On October 16, 2013, I stood on our land and watched Generator No 3 produce 14.4 MW of electricity which is been provided by my community (in partnership with Innergex) to BC Hydro for delivery to British Columbians[1]. Our communities' participation in the clean energy sector has provided Kanaka Bar, all our local area residents and all of British Columbia with generational assets and long term benefits.

When I read through your letter, and if I have interpreted the IRP correctly, I am disappointed that the opportunity for every British Columbian to become an independent power producer would be limited, if not ended. As the IRP is draft (and can still be revised), as a community, we met and our community comments on the IRP are:

LNG:

Kanaka Bar does not directly nor indirectly benefit from the development of a LNG sector which is focused in the North, Howe Sound and Vancouver Island. It also appears that the LNG sector may self generate electricity by the burning of LNG. This is not clean energy as the process of burning fossil fuel releases carbon dioxides into the air – an effect that all British Columbians want to reduce and also a contradiction to the spirit and intent of the *Clean Energy Act*.

[1] We have produced two (2) public community documents sharing our story and project history. Please let us know if you would like to receive copies.

We encourage BC Hydro to work with the LNG sector to ensure that their electricity needs (for LNG processing and incidental infrastructure requirements) are met through clean energy sources like wind, solar and run of river and request that a target of at least 50% of their needs be met through the clean energy sector.

We understand that the LNG industry and their electrical demand have not "taken" off yet so there is time. It also takes time to permit a clean energy project so the IRP should be revised to ensure that IPP projects have certainty and are therefore motivated to proceed – meaning that if a project can be permitted and designed to today's standards – construction can proceed because there is a buyer – namely, BC Hydro, who can then deliver the electricity to where it is needed in British Columbia.

Kanaka Bar, as do all First Nations and most of our rural communities, have an abundance of wind, solar and water resources within their backyards which can be developed as a source of clean energy for BC Hydro. However, the time, effort and monies necessary to gather the baseline data and start the permitting and design phase will not be done if there is no demand and the IRP (as drafted) gives every indication of no demand.

Conserving First:

Kanaka Bar has installed smart metres in all our homes and businesses; just completed a BC Hydro ECAP program and we are in the process of acquiring energy efficient appliances and is implementing renovations to help reduce our community demand on electricity (and ultimately, reduce our electricity bills).

Kanaka supports BC Hydro's effort to ensure that all British Columbians are encouraged to reduce their electricity consumption, particularly through education, modelling and reasonable incentives which demonstrate practical solutions and achievable steps that will result in a reduction of everyone's daily load demands.

We do caution though that some demand side management tools may result in a punitive, "regressive" or negative impact on some of our membership who do not have the capacity to understand the why and how of conservation. We all want to do our part through and we will continue to work with BC Hydro in conservation.

Net Metering

We would ask BC Hydro to increase the net metering threshold to 1000kW so that we can develop wind, solar and micro hydro projects to offset not just household demand, but community infrastructure demands too. With strong net metering program, British Columbians everywhere can put solar panels on their roofs, small wind towers in their yards and harness the power of the creeks and their pressurised domestic water supply sources.

Here in BC, we have all seen clean energy success stories like Tsouke First Nation and other seen stories nationally and internationally about successful clean energy projects. Kanaka would like the world to have more success stories coming out of British Columbia and a revised IRP which encouraged (and even provided strong incentives) for more IPP and net metering would generate those success stories.

Powering Tomorrow

As British Columbians, our heritage assets are something that we can all be proud off. We do understand that forecasted demand will exceed current supply so additional supply options are needed. While Site C represents an opportunity to address future demand, so does independent power production through negotiated EPA's (large scale projects), the SOP (15MW and under) and net metering.

Choosing Site C and upgrading heritage assets while eliminating another viable, cost effective home grown clean green energy alternative does not make sense. Our experience in design and construction also gives us the ability to say – that despite our best efforts; we still wound up 3 years behind schedule. We therefore expect BC Hydro chosen options will also be delayed. IPP can meet the demand and demand increase during the lag time.

Managing Resources

Meeting BC demand today and tomorrow is complex. Simply put, BC Hydro and British Columbia will need to expand IPP production of a clean energy electricity supply, not limit, delay, defer or cancel projects.

If BC Hydro's vision is to meet supply shortfall by importing and large projects, you will expose everyone to an avoidable risk, meaning British Colombians may wind up losing power (or paying through the nose) if we have to depend on others to supply our electrical needs because we decided today that we were not going to make the effort to develop our own local resources for tomorrow.

A diverse range of clean energy sources located throughout BC will mean that dependency on 3rd parties will be reduced and all British Columbians have electricity certainty if the BC Hydro grid (or import grid) goes down. Localised diverse power sources can continue to supply local electrical users while the grid is been repaired.

Planning for the Unexpected

Forecast demand is an exercise that comes with much uncertainty. We feel that BC Hydro is underestimating BC's future demand growth and that we will experience supply shortages, sooner, rather than later. If BC Hydro cannot meet the demand, then we run the risk of going to the market – and this will not be cheap and worse, may not be available if the market itself is tapped out due to their own increased demands.

Once again, we ask BC Hydro to encourage and actually provide incentives to create province wide diverse and variable green energy source development to meet future electricity demands. Multiple wind, solar and run of river projects of varying sizes located throughout BC is not a bad thing and must be encouraged so that if the future demand does exceed planned supply development, then there is a home grown alternative to import. British Columbians supplying British Columbians with electricity. An achievable intangible benefit difficult to quantify.

General Comments

Since BC Hydro first opened up the possibility of IPP in 1988, British Columbia's have considered and are now embracing the concept that by working together, lands and resource can be developed sustainably by using local area renewable resources to supply British Columbia with electricity.

First Nations and rural communities have significant renewable resources in our backyards like wind, solar, run of river and biomass that could be pursued. After 30 years of experience, Kanaka Bar has the capacity to do more. We have even starting looking at the options but will not expend our time, effort and money if there is no demand. That is unfortunate and a reversal of 25 years of working together with BC Hydro, industry and government to do something different.

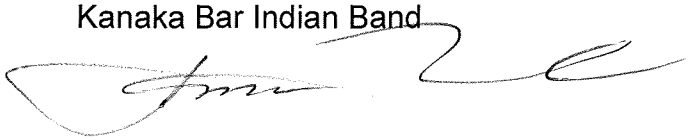
Clean Energy Business Fund

Created in 2010, we understand that 120 of 203 BC First Nations have submitted proposals and that 70 are now successfully utilising the fund to gather information on the clean energy sector and the opportunities available for their respective communities. The IRP, as drafted, will end new project development and therefore, the resource rents that were intended to keep the fund active and growing will also end.

Conclusion

British Columbians want the opportunity to provide electricity to BC Hydro and our provincial government has been encouraging the same. As our BC Hydro, please revise the IRP to ensure that British Columbians not only get a chance to supply clean electricity to you, but are encouraged to do so.

Kanaka Bar Indian Band



Chief James Frank

Cc Minister Bill Bennett and Minister John Rustad
Paul Kariya, Clean Energy BC
Richard Blanchet, Innergex

MUSQUEAM INDIAN BAND
6735 SALISH DRIVE
VANCOUVER, B.C.
CANADA V6N 4C4
TELEPHONE: 604 263-3261
FAX: 604 263-4212

October 17, 2013

Charlie Weiler
Acting Manager, Legal and Regulatory
Integrated Resource Plan
BC Hydro, Aboriginal Relations
6911 Southpoint Drive, 10th Floor
Burnaby, BC, V3N 4X8
Via email: 2013irp@bchydro.com

Re: First Nations' Vision for Clean Energy Development in BC and BC Hydro Integrated Resource Plan

We are writing in response to the revised BC Hydro Integrated Resource Plan. Clean energy has become an increasingly important part of First Nations economic development within British Columbia. First Nations have played a leading role in Independent Power development within British Columbia. Impact Benefit Agreements (IBAs) have been negotiated with numerous First Nations across the province, and First Nations have taken equity or ownership positions in many projects.

In 2007, a group of First Nations led negotiations with the Province to create the First Nations Clean Energy Business Fund. The fund was intended to facilitate First Nations involvement in the clean energy sector and help First Nations explore opportunities for clean energy development. In 2011, a Memorandum of Understanding between Clean Energy BC and various First Nations was also signed to ensure First Nations opportunities and involvement in this sector. First Nations across this province are becoming increasingly reliant on this sector and are working in conjunction with industry to ensure sustainable development and maximize benefits for their communities.

We were dismayed to read that the recently released BC Hydro Integrated Resource Plan (IRP) failed to address, in any way, the desire and expectation of First Nations across the Province to be involved in the continued growth of the clean energy sector. This is of particular surprise, as the May 2012 draft, which underwent consultation with First Nations, recommended the development of a clean energy procurement process to acquire an additional 2,000 GWh/yr of clean energy by 2018. The most recent draft

eliminates this recommendation. The current IRP, by and large, has no role for First Nations and only extremely limited opportunities for new procurement. This contradicts the Premier's directions to Ministers including the Minister of Aboriginal Relations and Reconciliation (MARR), the Clean Energy Act, and the BC Jobs Plan.

Letters to Ministers

The IRP, as currently drafted, directly contradicts the Premier's mandate letters to Ministers including:

> **Natural Gas (Minister Coleman).**
> Ministerial Initiative No. 3 – "*Maximize the use of clean power in LNG projects while preserving maximum provincial revenue generation opportunities*"
>
> **Aboriginal (Minister Rustad)**
> Ministerial Initiative No. 3 – "*Work with BC First Nations that are impacted by natural extraction, pipelines or LNG facilities to ensure they are provided with the ability to participate in this generational opportunity*"
>
> **Environment (Minister Polak)**
> Ministerial Initiative No. 5 – "*Work with the Minister of Natural Gas Development, ensure that LNG Operations in British Columbia are the cleanest in the world*"
>
> **Energy (Minister Bennett)**
> Ministerial Initiative No. 8 – "*Work with the Clean Energy sector to ensure that there remain significant opportunities for renewable energy companies to provide power to British Columbia*"

Clean Energy Act

The IRP, as currently drafted, also directly contradicts or side steps the Clean Energy Act, which set objectives including:

- Generating at least 93% of all electricity from clean or renewable resources in British Columbia.
- Using clean or renewable resources to help achieve provincial greenhouse has (GHG) reduction targets.

BC Jobs Plan

The BC Jobs Plan identified "Technology, Clean Tech and Green Economy" as one of the eight critical sectors for BC's growth, and the Province committed to working with communities and industries to develop strategies to create economic opportunities in these sectors. The IRP effectively eliminates much of the potential clean energy development in BC, flying in the face of this commitment.

Further, the Jobs Plan committed to:

- "Improve relationships between Aboriginal communities, industry and government, as well as help implement practical measures for economic development...[and] enhance Aboriginal peoples' capacity for economic participation..."

Clean energy development, we believe, partially meets these objectives.

MARR

In a letter dated June 10, 2013, the Premier directed Minister Rustad to, "keep your ministry focused on the BC Jobs Plan". As noted above, we believe the IRP will not meet the objectives of the Jobs Plan. Further, the following initiative was also set for MARR, to "Work with BC First Nations to ensure they participate in the Standing Offer Program by BC Hydro through the First Nations Clean Energy Business Fund". As the Standing Offer Program (SOP) is limited to projects under 15 MW this will severely impact potential opportunities for First Nations. Further, the SOP was unilaterally revised and requirements restricted in the IRP, further restricting opportunities for First Nations. There needs to be a systematic consultation process with First Nations to ensure that opportunities are maximized and Minister Rustad can execute the direction provided by the Premier.

The IRP could also drastically impact existing First Nations clean energy projects. The relationships built and approvals granted by First Nations for these projects were premised on the expectation that the projects would supply long-term energy to BC Hydro. The IRP indicates that only 75% of Electricity Purchase Agreements (EPAs) for small hydro projects will be renewed. We assume BC will compensate First Nations for the lost revenue, revenue provided as compensation for impacts to our title and rights. Further, the IRP indicates the BC Hydro intends to cancel many of the existing EPAs, EPAs which many First Nations are relying upon for economic development. Both of these proposals do not meet the objectives outlined in the Clean Energy Act, BC Jobs Plan, or the letters to the Ministers.

Further, 70 First Nations have received $4million from BC's First Nations Clean Energy Business fund for feasibility analysis, planning and equity investments to participate in the clean energy sector. In addition, these First Nations have invested their own capital and time into the analysis and planning of projects. If the IRP is approved it will pre-emptively eliminate future First Nations involvement in the clean energy sector for many years to come and result in the loss of much of the effort and capital invested to date. First Nations like shishalh, Sts'ailes, Squamish, Sliammon, Klahoose, Kwakiutl, Namgis, Tahltan, Halfway River, West Moberly, Kitselas, Lil'wat, Hupacasath, Taku Tlingit, and many others have invested heavily in building their expertise and experience in the clean energy sector - several as owners and developers of projects. Our vision for the future differs significantly from the IRP.

Support for Clean Energy

Support for clean energy has been seen at the provincial level from First Nations and local governments. The First Nations Summit, on September 27 resolved, "That the First Nations Summit Executive engage leadership from the Province and BC Hydro to ensure that the Integrated Resource Plan is revised to include reflections of First Nations input." In addition, recently the Union of BC Municipalities (UBCM) endorsed a resolution stating that, "in order to remain globally competitive in a fast changing world, the federal government be requested to work with the UBCM and Federation of Canadian Municipalities (FCM), to develop a new energy strategy prioritizing green-sector jobs and clean energy innovation". The IRP, as currently drafted, does not prioritize green-sector jobs or clean energy innovation. Wealth creation opportunities should put First Nations and local communities first, allowing dividends and success to flow to local communities.

Our Vision

We have two proposals that are of particular relevance to the IRP. **First, at least 50 percent of the energy used to power new LNG plants should be produced using clean energy.** This will assist in off-setting the greenhouse gas emissions created, as well as create substantial economic opportunities for First Nations communities.

If planned LNG projects and northern development are entirely powered by gas-fired generation, the environmental impacts will be unacceptable to First Nations. Some 75 million tonnes of GHGs along with unacceptable levels of nitrous oxides, sulphur oxides and particulate matter could be in our future. BC's legislated 2020 GHG target is 45 million tonnes. In addition, if BC secures four LNG plants, as stated by Minister Coleman, the equivalent electrical power needed could be between 30,000 to 50,000 GWh of energy; however, the IRP is only planning for a load of 3,000 GWh. BC Hydro suggests that the energy demand should be met by on-site gas-fired generation and BC Hydro assets such as Site C. Underestimating the potential for LNG and northern development load, as well as relying on BC Hydro assets and on-site generation greatly reduces the room for First Nations involvement and eliminates the possibility to spread the employment and economic benefits associated with LNG projects around the province. In some areas, this will greatly impact First Nations plans to close the socio-economic gap. This is unacceptable, particularly when clean energy options exist.

Second, greater opportunities should be created for First Nations involvement in the clean energy sector. A First Nations "prescribed" level of participation should be required in any clean power call or a specific First Nation clean power call launched. The current BC Hydro Standing Offer Program should be revised to require First Nations participation or to allow for prioritized access to procurement or enhanced capacity for projects where such participation exists. Creating a First Nations call for power would create new significant economic opportunities while meeting other demands, as mentioned above.

More generally, BC's approach to energy development and the IRP must first and foremost, protect the environment by utilizing the cleanest power options possible.

Second, it must ensure First Nations have robust opportunities to participate in energy development projects on our lands.

BC Hydro IRP Comment Form

Supporting LNG: We support the development of clean energy and believe as stated that, if these projects are to proceed, at least 50% of the energy needed to power these plants should be provided by clean energy.

Conserving First: We support the use of energy conversation measures; however, we believe that these measures should be paired with responsible and sustainable IPP development.

Powering Tomorrow: We do not believe that relying on BC Hydro proposed projects such as Site C or the historic infrastructure projects is appropriate. IPP development can be critical to economic development within First Nations communities. The SOP, as currently drafted, is not sufficient to provide for economic opportunities.

Managing Resources: the current draft of the IRP, as stated above, does not meet the objectives of the Clean Energy Act or our vision of the future. We strongly disagree with BC Hydro's proposed management of resources.

Conclusion

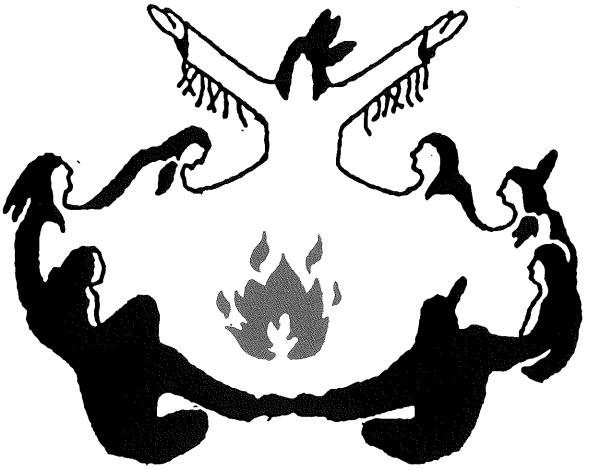
We are seeking the BC Hydro's commitment to work collaboratively with First Nations including the First Nations Leadership Council to maximize our opportunities in the energy sector. Furthermore, we seek assurance that additional and adequate consultation will occur with First Nations leadership prior to approving the BC Hydro Integrated Resource Plan.

Signed on behalf of the Musqueam Indian Band:

Doug Raines
Band Manager, Musqueam Indian Band

cc.
Minister Rustad, Aboriginal Relations and Reconciliation
Minister Thompson, Forest Lands and Natural Resource Operations
Minister Bennett, Energy and Mines

NADLEH WHUT'EN INDIAN BAND



October 3, 2013

Charlie Weiler
Acting Manager, Legal and Regulatory
Integrated Resource Plan
BC Hydro, Aboriginal Relations
6911 Southpoint Dreive, 10th Floor
Burnaby, BC, V3N 4X8
Via email: 2013irp@bchydro.com

Re: First Nations' Vision for Clean Energy Development in BC and BC Hydro Integrated Resource Plan

We are writing in response to the revised BC Hydro Integrated Resource Plan. Clean energy has become an increasingly important part of First Nations economic development within British Columbia. First Nations have played a leading role in Independent Power development within British Columbia. Impact Benefit Agreements (IBAs) have been negotiated with numerous First Nations across the province, and First Nations have taken equity or ownership positions in many projects.

In 2007, a group of First Nations led negotiations with the Province to create the First Nations Clean Energy Business Fund. The fund was intended to facilitate First Nations involvement in the clean energy sector and help First Nations explore opportunities for clean energy development. In 2011, a Memorandum of Understanding between Clean Energy BC and various First Nations was also signed to ensure First Nations opportunities and involvement in this sector. First Nations across this province are becoming increasingly reliant on this sector and are working in conjunction with industry to ensure sustainable development and maximize benefits for their communities.

We were dismayed to read that the recently released BC Hydro Integrated Resource Plan (IRP) failed to address, in any way, the desire and expectation of First Nations across the Province to be involved in the continued growth of the clean energy sector. This is of particular surprise, as the May 2012 draft, which underwent consultation with

First Nations, recommended the development of a clean energy procurement process to acquire an additional 2,000 GWh/yr of clean energy by 2018. The most recent draft eliminates this recommendation. The current IRP, by and large, has no role for First Nations and only extremely limited opportunities for new procurement. This contradicts the Premier's directions to Ministers including the Minister of Aboriginal Relations and Reconciliation (MARR), the Clean Energy Act, and the BC Jobs Plan.

Letters to Ministers
The IRP, as currently drafted, directly contradicts the Premier's mandate letters to Ministers including:

> **Natural Gas (Minister Coleman).**
> Ministerial Initiative No. 3 – "*Maximize the use of clean power in LNG projects while preserving maximum provincial revenue generation opportunities*"
>
> **Aboriginal (Minister Rustad)**
> Ministerial Initiative No. 3 – "*Work with BC First Nations that are impacted by natural extraction, pipelines or LNG facilities to ensure they are provided with the ability to participate in this generational opportunity*"
>
> **Environment (Minister Polak)**
> Ministerial Initiative No. 5 – "*Work with the Minister of Natural Gas Development, ensure that LNG Operations in British Columbia are the cleanest in the world*"
>
> **Energy (Minister Bennett)**
> Ministerial Initiative No. 8 – "*Work with the Clean Energy sector to ensure that there remain significant opportunities for renewable energy companies to provide power to British Columbia*"

Clean Energy Act
The IRP, as currently drafted, also directly contradicts or side steps the Clean Energy Act, which set objectives including:

- Generating at least 93% of all electricity from clean or renewable resources in British Columbia.
- Using clean or renewable resources to help achieve provincial greenhouse has (GHG) reduction targets.

BC Jobs Plan
The BC Jobs Plan identified "Technology, Clean Tech and Green Economy" as one of the eight critical sectors for BC's growth, and the Province committed to working with communities and industries to develop strategies to create economic opportunities in

these sectors. The IRP effectively eliminates much of the potential clean energy development in BC, flying in the face of this commitment.

Further, the Jobs Plan committed to:

- "Improve relationships between Aboriginal communities, industry and government, as well as help implement practical measures for economic development…[and] enhance Aboriginal peoples' capacity for economic participation..."

Clean energy development, we believe, partially meets these objectives.

MARR

In a letter dated June 10, 2013, the Premier directed Minister Rustad to, "keep your ministry focused on the BC Jobs Plan". As noted above, we believe the IRP will not meet the objectives of the Jobs Plan. Further, the following initiative was also set for MARR, to "Work with BC First Nations to ensure they participate in the Standing Offer Program by BC Hydro through the First Nations Clean Energy Business Fund". As the Standing Offer Program (SOP) is limited to projects under 15 MW this will severely impact potential opportunities for First Nations. Further, the SOP was unilaterally revised and requirements restricted in the IRP, further restricting opportunities for First Nations. There needs to be a systematic consultation process with First Nations to ensure that opportunities are maximized and Minister Rustad can execute the direction provided by the Premier.

The IRP could also drastically impact existing First Nations clean energy projects. The relationships built and approvals granted by First Nations for these projects were premised on the expectation that the projects would supply long-term energy to BC Hydro. The IRP indicates that only 75% of Electricity Purchase Agreements (EPAs) for small hydro projects will be renewed. We assume BC will compensate First Nations for the lost revenue, revenue provided as compensation for impacts to our title and rights. Further, the IRP indicates the BC Hydro intends to cancel many of the existing EPAs, EPAs which many First Nations are relying upon for economic development. Both of these proposals do not meet the objectives outlined in the Clean Energy Act, BC Jobs Plan, or the letters to the Ministers.

Further, 70 First Nations have received $4million from BC's First Nations Clean Energy Business fund for feasibility analysis, planning and equity investments to participate in the clean energy sector. In addition, these First Nations have invested their own capital and time into the analysis and planning of projects. If the IRP is approved it will pre-emptively eliminate future First Nations involvement in the clean energy sector for many years to come and result in the loss of much of the effort and capital invested to date. First Nations like shishalh, Sts'ailes, Squamish, Sliammon, Klahoose, Kwakiutl, Namgis, Tahltan, Halfway River, West Moberly, Kitselas, Lil'wat, Hupacasath, Taku Tlingit, and many others have invested heavily in building their expertise and experience in the clean energy sector - several as owners and developers of projects. Our vision for the future differs significantly from the IRP.

Support for Clean Energy

Support for clean energy has been seen at the provincial level from First Nations and local governments. The First Nations Summit, on September 27 resolved, "That the First Nations Summit Executive engage leadership from the Province and BC Hydro to ensure that the Integrated Resource Plan is revised to include reflections of First Nations input." In addition, recently the Union of BC Municipalities (UBCM) endorsed a resolution stating that, "in order to remain globally competitive in a fast changing world, the federal government be requested to work with the UBCM and Federation of Canadian Municipalities (FCM), to develop a new energy strategy prioritizing green-sector jobs and clean energy innovation". The IRP, as currently drafted, does not prioritize green-sector jobs or clean energy innovation. Wealth creation opportunities should put First Nations and local communities first, allowing dividends and success to flow to local communities.

Our Vision

We have two proposals that are of particular relevance to the IRP. **First, at least 50 percent of the energy used to power new LNG plants should be produced using clean energy.** This will assist in off-setting the greenhouse gas emissions created, as well as create substantial economic opportunities for First Nations communities.

If planned LNG projects and northern development are entirely powered by gas-fired generation, the environmental impacts will be unacceptable to First Nations. Some 75 million tonnes of GHGs along with unacceptable levels of nitrous oxides, sulphur oxides and particulate matter could be in our future. BC's legislated 2020 GHG target is 45 million tonnes. In addition, if BC secures four LNG plants, as stated by Minister Coleman, the equivalent electrical power needed could be between 30,000 to 50,000 GWh of energy; however, the IRP is only planning for a load of 3,000 GWh. BC Hydro suggests that the energy demand should be met by on-site gas-fired generation and BC Hydro assets such as Site C. Underestimating the potential for LNG and northern development load, as well as relying on BC Hydro assets and on-site generation greatly reduces the room for First Nations involvement and eliminates the possibility to spread the employment and economic benefits associated with LNG projects around the province. In some areas, this will greatly impact First Nations plans to close the socio-economic gap. This is unacceptable, particularly when clean energy options exist.

Second, greater opportunities should be created for First Nations involvement in the clean energy sector. A First Nations "prescribed" level of participation should be required in any clean power call or a specific First Nation clean power call launched. The current BC Hydro Standing Offer Program should be revised to require First Nations participation or to allow for prioritized access to procurement or enhanced capacity for projects where such participation exists. Creating a First Nations call for power would create new significant economic opportunities while meeting other demands, as mentioned above.

More generally, BC's approach to energy development and the IRP must first and foremost, protect the environment by utilizing the cleanest power options possible. Second, it must ensure First Nations have robust opportunities to participate in energy development projects on our lands.

BC Hydro IRP Comment Form

Supporting LNG: We support the development of clean energy and believe as stated that, if these projects are to proceed, at least 50% of the energy needed to power these plants should be provided by clean energy.

Conserving First: We support the use of energy conversation measures; however, we believe that these measures should be paired with responsible and sustainable IPP development.

Powering Tomorrow: We do not believe that relying on BC Hydro proposed projects such as Site C or the historic infrastructure projects is appropriate. IPP development can be critical to economic development within First Nations communities. The SOP, as currently drafted, is not sufficient to provide for economic opportunities.

Managing Resources: the current draft of the IRP, as stated above, does not meet the objectives of the Clean Energy Act or our vision of the future. We strongly disagree with BC Hydro's proposed management of resources.

Conclusion

We are seeking the BC Hydro's commitment to work collaboratively with First Nations including the First Nations Leadership Council to maximize our opportunities in the energy sector. Furthermore, we seek assurance that additional and adequate consultation will occur with First Nations leadership prior to approving the BC Hydro Integrated Resource Plan.

Signed on behalf of the *xxx* Nation:

cc.
Minister Rustad, Aboriginal Relations and Reconciliation
Minister Thompson, Forest Lands and Natural Resource Operations
Minister Bennett, Energy and Mines

Neskonlith Indian Band
Box 318, Chase, BC V0E 1M0
Phone (250) 679-3295 Fax (250) 679-5306
www.neskonlith.org

October 10th 2013

Mr. Charlie Weiler
Acting Manager Legal and Regulatory
Integrated Resource Plan
BC Hydro, Aboriginal Relations
6911 Southpoint Drive, 10th Floor
Burnaby, BC
V3N 4X8

Dear Mr. Weiler,

RE: Integrated Resource Plan

The Secwepemc Nation hold collective unextinguished aboriginal title and rights to the land and resources held within our traditional territory. The above-noted proposal is within our territory and as such, is subject to our title, jurisdiction, rights and interests.

The Integrated Resource Plan submitted to us by BC Hydro will have a significant impact on the collective rights of the Secwepemc. As such, deep consultation is a requirement. Whilst I am aware that consultation has occurred in the past relating to the IRP, in our view this has been closer to the notification end of the spectrum. It is only now that the full and final document is complete with all amendments and recommendations included that we are being asked to participate in a more meaningful consultation process.

We therefore request that more time be allowed and the deadline extended in order for us to have full and meaningful consultation including meeting with BC Hydro, meeting with the Neskonlith membership and Elders, full reading and review of the document and to develop a response taking into account all of our concerns regarding the implications and ramifications of the above project.

Prior to initiating this important work, we must reach an agreement on a proper capacity funding agreement with BC Hydro, as our Band does not possess the resources to carry out a detailed review

Please contact Ruth Thomas at ruth.thomas@live.ca for a mutually agreeable date for a meeting.

Kukstemc,

Chief Judy Wilson

Okanagan Indian Band

12420 Westside Road • Vernon, BC, • V1H 2A4
Telephone: 250-542-4328 • Facsimile 250-542-4990
Email: okibadmin@okanagan.org

October 29th, 2013

Charlie Weiler
Acting Manager, Legal and Regulatory
Integrated Resource Plan
BC Hydro, Aboriginal Relations
6911 Southpoint Dreive, 10th Floor
Burnaby, BC, V3N 4X8
Via email: 2013irp@bchydro.com

Re: First Nations Vision for BC Clean Energy Development

Okanagan Indian Band has a substantial commitment to Clean Energy Development. We feel that BC Hydro's draft release of its IRP program on August 23d 2013 is unacceptable as it fails to support opportunity for First Nations, including ours, to develop renewable energy projects.

Because of 1) the First Nations Clean Energy Business Fund - developed by BC to facilitate Band involvement in the clean energy sector and 2) the 2011 Memorandum of Understanding between Clean Energy BC and several First Nations, our community has invested a sizable amount of time and resources in a renewable energy project.

Project Underway: Specifically, we are in our second year of data collection necessary to build a 150 MW wind farm within our traditional territory. We have excellent first year data, support from neighboring community areas, the necessary funding, a partner with extensive industry expertise and close proximity to BC Hydro's main lines. Once we complete our final study, we will only lack a Power Purchase Agreement.

High Unemployment & Low Revenues: Our community has unemployment rates over 3 times higher than the provincial average and lacks the tax base to fund the most basic public infrastructure. It is our intent to use our wind farm to resolve these problems.

Low Energy Prices, Stable Supply & Lower Social Costs: We recommend you use a Portfolio Theory approach to energy production. This Harvard based model ensures the highest long term returns on investments through diversification – many producers creates the lowest possible energy prices – no monopoly.

This approach also vastly improves the reliability of the energy grid in the event of natural disasters such as earth quakes, and creates economic development in small centers, which are often the largest consumers of social programs. Many small producers can create energy while lowering welfare costs at the same time.

In closing the Okanagan Indian Band feels it is unacceptable that BC Hydro's Integrated Resource Plan excludes clean energy and First Nations independent power producers, we feel very strongly that the increased need for power means increased need for renewable, clean energy and providing opportunities for all First Nations. We therefore highly recommend a return to the BC Hydro original proposed direction and agreements.

Yours very sincerely,

Chief Byron Louis
p.p. Robert Corman
Economic Development Director

cc
Minister Rustad, Aboriginal Relations and Reconciliation
Minister Thompson, Forest Lands and Natural Resource Operations
Minister Bennett, Energy and Mines

SAIK'UZ FIRST NATION
135 Joseph Street
Vanderhoof, BC
V0J 3A1
Ph: (250) 567-9293
Fax: (250) 567-2998

October 3, 2013

Charlie Weiler
Acting Manager, Legal and Regulatory
Integrated Resource Plan
BC Hydro, Aboriginal Relations
6911 Southpoint Drive, 10th Floor
Burnaby, BC, V3N 4X8
Via email: 2013irp@bchydro.com

Re: First Nations' Vision for Clean Energy Development in BC and BC Hydro Integrated Resource Plan

We are writing in response to the revised BC Hydro Integrated Resource Plan. Clean energy has become an increasingly important part of First Nations economic development within British Columbia. First Nations have played a leading role in Independent Power development within British Columbia. Impact Benefit Agreements (IBAs) have been negotiated with numerous First Nations across the province, and First Nations have taken equity or ownership positions in many projects.

In 2007, a group of First Nations led negotiations with the Province to create the First Nations Clean Energy Business Fund. The fund was intended to facilitate First Nations involvement in the clean energy sector and help First Nations explore opportunities for clean energy development. In 2011, a Memorandum of Understanding between Clean Energy BC and various First Nations was also signed to ensure First Nations opportunities and involvement in this sector. First Nations across this province are becoming increasingly reliant on this sector and are working in conjunction with industry to ensure sustainable development and maximize benefits for their communities.

We were dismayed to read that the recently released BC Hydro Integrated Resource Plan (IRP) failed to address, in any way, the desire and expectation of First Nations across the Province to

be involved in the continued growth of the clean energy sector. This is of particular surprise, as the May 2012 draft, which underwent consultation with First Nations, recommended the development of a clean energy procurement process to acquire an additional 2,000 GWh/yr of clean energy by 2018. The most recent draft eliminates this recommendation. The current IRP, by and large, has no role for First Nations and only extremely limited opportunities for new procurement. This contradicts the Premier's directions to Ministers including the Minister of Aboriginal Relations and Reconciliation (MARR), the Clean Energy Act, and the BC Jobs Plan.

Letters to Ministers
The IRP, as currently drafted, directly contradicts the Premier's mandate letters to Ministers including:

Natural Gas (Minister Coleman).
Ministerial Initiative No. 3 – "*Maximize the use of clean power in LNG projects while preserving maximum provincial revenue generation opportunities*"

Aboriginal (Minister Rustad)
Ministerial Initiative No. 3 – "*Work with BC First Nations that are impacted by natural extraction, pipelines or LNG facilities to ensure they are provided with the ability to participate in this generational opportunity*"

Environment (Minister Polak)
Ministerial Initiative No. 5 – "*Work with the Minister of Natural Gas Development, ensure that LNG Operations in British Columbia are the cleanest in the world*"
Energy (Minister Bennett)
Ministerial Initiative No. 8 – "*Work with the Clean Energy sector to ensure that there remain significant opportunities for renewable energy companies to provide power to British Columbia*"

Clean Energy Act
The IRP, as currently drafted, also directly contradicts or side steps the Clean Energy Act, which set objectives including:

- Generating at least 93% of all electricity from clean or renewable resources in British Columbia.
- Using clean or renewable resources to help achieve provincial greenhouse has (GHG) reduction targets.

BC Jobs Plan
The BC Jobs Plan identified "Technology, Clean Tech and Green Economy" as one of the eight critical sectors for BC's growth, and the Province committed to working with communities and industries to develop strategies to create economic opportunities in these sectors. The IRP effectively eliminates much of the potential clean energy development in BC, flying in the face of this commitment.

Further, the Jobs Plan committed to:

- "Improve relationships between Aboriginal communities, industry and government, as well as help implement practical measures for economic development…[and] enhance Aboriginal peoples' capacity for economic participation..."

Clean energy development, we believe, partially meets these objectives.

MARR

In a letter dated June 10, 2013, the Premier directed Minister Rustad to, "keep your ministry focused on the BC Jobs Plan". As noted above, we believe the IRP will not meet the objectives of the Jobs Plan. Further, the following initiative was also set for MARR, to "Work with BC First Nations to ensure they participate in the Standing Offer Program by BC Hydro through the First Nations Clean Energy Business Fund". As the Standing Offer Program (SOP) is limited to projects under 15 MW this will severely impact potential opportunities for First Nations. Further, the SOP was unilaterally revised and requirements restricted in the IRP, further restricting opportunities for First Nations. There needs to be a systematic consultation process with First Nations to ensure that opportunities are maximized and Minister Rustad can execute the direction provided by the Premier.

The IRP could also drastically impact existing First Nations clean energy projects. The relationships built and approvals granted by First Nations for these projects were premised on the expectation that the projects would supply long-term energy to BC Hydro. The IRP indicates that only 75% of Electricity Purchase Agreements (EPAs) for small hydro projects will be renewed. We assume BC will compensate First Nations for the lost revenue, revenue provided as compensation for impacts to our title and rights. Further, the IRP indicates the BC Hydro intends to cancel many of the existing EPAs, EPAs which many First Nations are relying upon for economic development. Both of these proposals do not meet the objectives outlined in the Clean Energy Act, BC Jobs Plan, or the letters to the Ministers.

Further, 70 First Nations have received $4million from BC's First Nations Clean Energy Business fund for feasibility analysis, planning and equity investments to participate in the clean energy sector. In addition, these First Nations have invested their own capital and time into the analysis and planning of projects. If the IRP is approved it will pre-emptively eliminate future First Nations involvement in the clean energy sector for many years to come and result in the loss of much of the effort and capital invested to date. First Nations like shishalh, Sts'ailes, Squamish, Sliammon, Klahoose, Kwakiutl, Namgis, Tahltan, Halfway River, West Moberly, Kitselas, Lil'wat, Hupacasath, Taku Tlingit, and many others have invested heavily in building their expertise and experience in the clean energy sector - several as owners and developers of projects. Our vision for the future differs significantly from the IRP.

Support for Clean Energy

Support for clean energy has been seen at the provincial level from First Nations and local governments. The First Nations Summit, on September 27 resolved, "That the First Nations Summit Executive engage leadership from the Province and BC Hydro to ensure that the Integrated Resource Plan is revised to include reflections of First Nations input." In addition, recently the Union of BC Municipalities (UBCM) endorsed a resolution stating that, "in order to remain globally competitive in a fast changing world, the federal government be requested to work with the UBCM and Federation of Canadian Municipalities (FCM), to develop a new

energy strategy prioritizing green-sector jobs and clean energy innovation". The IRP, as currently drafted, does not prioritize green-sector jobs or clean energy innovation. Wealth creation opportunities should put First Nations and local communities first, allowing dividends and success to flow to local communities.

Our Vision

We have two proposals that are of particular relevance to the IRP. **First, at least 50 percent of the energy used to power new LNG plants should be produced using clean energy.** This will assist in off-setting the greenhouse gas emissions created, as well as create substantial economic opportunities for First Nations communities.

If planned LNG projects and northern development are entirely powered by gas-fired generation, the environmental impacts will be unacceptable to First Nations. Some 75 million tonnes of GHGs along with unacceptable levels of nitrous oxides, sulphur oxides and particulate matter could be in our future. BC's legislated 2020 GHG target is 45 million tonnes. In addition, if BC secures four LNG plants, as stated by Minister Coleman, the equivalent electrical power needed could be between 30,000 to 50,000 GWh of energy; however, the IRP is only planning for a load of 3,000 GWh. BC Hydro suggests that the energy demand should be met by on-site gas-fired generation and BC Hydro assets such as Site C. Underestimating the potential for LNG and northern development load, as well as relying on BC Hydro assets and on-site generation greatly reduces the room for First Nations involvement and eliminates the possibility to spread the employment and economic benefits associated with LNG projects around the province. In some areas, this will greatly impact First Nations plans to close the socio-economic gap. This is unacceptable, particularly when clean energy options exist.

Second, greater opportunities should be created for First Nations involvement in the clean energy sector. A First Nations "prescribed" level of participation should be required in any clean power call or a specific First Nation clean power call launched. The current BC Hydro Standing Offer Program should be revised to require First Nations participation or to allow for prioritized access to procurement or enhanced capacity for projects where such participation exists. Creating a First Nations call for power would create new significant economic opportunities while meeting other demands, as mentioned above.

More generally, BC's approach to energy development and the IRP must first and foremost, protect the environment by utilizing the cleanest power options possible. Second, it must ensure First Nations have robust opportunities to participate in energy development projects on our lands.

BC Hydro IRP Comment Form

Supporting LNG: We support the development of clean energy and believe as stated that, if these projects are to proceed, at least 50% of the energy needed to power these plants should be provided by clean energy.

Conserving First: We support the use of energy conversation measures; however, we believe that these measures should be paired with responsible and sustainable IPP development.

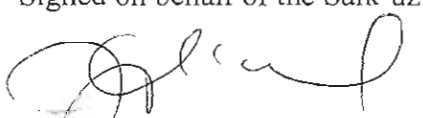
Powering Tomorrow: We do not believe that relying on BC Hydro proposed projects such as Site C or the historic infrastructure projects is appropriate. IPP development can be critical to economic development within First Nations communities. The SOP, as currently drafted, is not sufficient to provide for economic opportunities.

Managing Resources: the current draft of the IRP, as stated above, does not meet the objectives of the Clean Energy Act or our vision of the future. We strongly disagree with BC Hydro's proposed management of resources.

Conclusion

We are seeking the BC Hydro's commitment to work collaboratively with First Nations including our Nation to maximize our opportunities in the energy sector. Furthermore, we seek assurance that additional and adequate consultation will occur with First Nations leadership prior to approving the BC Hydro Integrated Resource Plan.

Signed on behalf of the Saik'uz First Nation



Jackie Thomas
Lands & Resources Coordinator

cc.
Saik'uz Council
Minister Rustad, Aboriginal Relations and Reconciliation
Minister Thompson, Forest Lands and Natural Resource Operations
Minister Bennett, Energy and Mines

SECHELT INDIAN BAND

October 18, 2013

Charlie Weiler, Acting Manager
Legal and Regulatory Integrated Resource Plan
BC Hydro, Aboriginal Relations
6911 Southpoint Drive, 10th Floor
Burnaby, BC V3N 4X8

Via email: 2013irp@bchydro.com

Dear Sir:

Re: First Nations' Vision for Clean Energy Development in BC and BC Hydro Integrated Resource Plan

We are writing in response to the revised BC Hydro Integrated Resource Plan. Clean energy has become an increasingly important part of First Nations economic development within British Columbia. First Nations have played a leading role in Independent Power development within British Columbia. Impact Benefit Agreements (IBAs) have been negotiated with numerous First Nations across the province. First Nations have also taken equity or ownership positions in many projects and developed businesses to capitalize on parallel business opportunities.

In 2007, a group of First Nations led negotiations with the Province to create the First Nations Clean Energy Business Fund. The fund was intended to facilitate First Nations involvement in the clean energy sector and help First Nations explore opportunities for clean energy development. In 2011, a Memorandum of Understanding between Clean Energy BC and various First Nations was also signed to ensure First Nations opportunities and involvement in this sector. First Nations across this province are becoming increasingly reliant on this sector and are working in conjunction with industry to ensure sustainable development and maximize benefits for their communities.

We were dismayed to read that the recently released BC Hydro Integrated Resource Plan (IRP) failed to address, in any way, the desire and expectation of First Nations across the Province to be involved in the continued growth of the clean energy sector. This is of particular surprise as the May 2012 draft, which underwent consultation with First Nations, recommended the development of a clean energy procurement process to acquire an additional 2,000 GWh/yr of clean energy by 2018. The most recent draft eliminates this recommendation. The current IRP, by and large, has no role for First Nations and only extremely limited opportunities for new procurement. This contradicts the Premier's directions to Ministers including the Minister of Aboriginal Relations and Reconciliation (MARR), the Clean Energy Act, and the BC Jobs Plan.

PO Box 740, Sechelt, B.C. V0N 3A0 **Tel:** 604 / 885-2273 **Toll Free:** 1-866-885-2275 **Fax:** 604 / 885-3490 **Email:** sib@secheltnation.net

Letters to Ministers
The IRP, as currently drafted, directly contradicts the Premier's mandate letters to Ministers including:

> **Natural Gas (Minister Coleman).**
> Ministerial Initiative No. 3 – "*Maximize the use of clean power in LNG projects while preserving maximum provincial revenue generation opportunities*"
>
> **Aboriginal (Minister Rustad)**
> Ministerial Initiative No. 3 – "*Work with BC First Nations that are impacted by natural extraction, pipelines or LNG facilities to ensure they are provided with the ability to participate in this generational opportunity*"
>
> **Environment (Minister Polak)**
> Ministerial Initiative No. 5 – "*Work with the Minister of Natural Gas Development, ensure that LNG Operations in British Columbia are the cleanest in the world*"
>
> **Energy (Minister Bennett)**
> Ministerial Initiative No. 8 – "*Work with the Clean Energy sector to ensure that there remain significant opportunities for renewable energy companies to provide power to British Columbia*"

Clean Energy Act
The IRP, as currently drafted, also directly contradicts or side steps the Clean Energy Act, which set objectives including:

- Generating at least 93% of all electricity from clean or renewable resources in British Columbia.
- Using clean or renewable resources to help achieve provincial greenhouse gas (GHG) reduction targets.

BC Jobs Plan
The BC Jobs Plan identified "Technology, Clean Tech and Green Economy" as one of the eight critical sectors for BC's growth, and the Province committed to working with communities and industries to develop strategies to create economic opportunities in these sectors. The IRP effectively eliminates much of the potential clean energy development in BC, flying in the face of this commitment.

Further, the Jobs Plan committed to:

- "Improve relationships between Aboriginal communities, industry and government, as well as help implement practical measures for economic

development...[and] enhance Aboriginal peoples' capacity for economic participation..."

Clean energy development, we believe, partially meets these objectives.

MARR

In a letter dated June 10, 2013, the Premier directed Minister Rustad to, "keep your ministry focused on the BC Jobs Plan". As noted above, we believe the IRP will not meet the objectives of the Jobs Plan. Further, the following initiative was also set for MARR, to "Work with BC First Nations to ensure they participate in the Standing Offer Program by BC Hydro through the First Nations Clean Energy Business Fund". As the Standing Offer Program (SOP) is limited to projects under 15 MW this will severely impact potential opportunities for First Nations. Further, the SOP was unilaterally revised and requirements restricted in the IRP, further restricting opportunities for First Nations. There needs to be a systematic consultation process with First Nations to ensure that opportunities are maximized and Minister Rustad can execute the direction provided by the Premier.

The IRP could also drastically impact existing First Nations clean energy projects. The relationships built and approvals granted by First Nations for these projects were premised on the expectation that the projects would supply long-term energy to BC Hydro. The IRP indicates that only 75% of Electricity Purchase Agreements (EPAs) for small hydro projects will be renewed. We assume BC will compensate First Nations for the lost revenue, revenue provided as compensation for impacts to our title and rights. Further, the IRP indicates the BC Hydro intends to cancel many of the existing EPAs, EPAs which many First Nations are relying upon for economic development. Both of these proposals do not meet the objectives outlined in the Clean Energy Act, BC Jobs Plan, or the letters to the Ministers.

Further, 70 First Nations have received $4million from BC's First Nations Clean Energy Business fund for feasibility analysis, planning and equity investments to participate in the clean energy sector. In addition, these First Nations have invested their own capital and time into the analysis and planning of projects. If the IRP is approved it will pre-emptively eliminate future First Nations involvement in the clean energy sector for many years to come and result in the loss of much of the effort and capital invested to date. First Nations like shíshálh, Sts'ailes, Squamish, Sliammon, Klahoose, Kwakiutl, Namgis, Tahltan, Halfway River, West Moberly, Kitselas, Lil'wat, Hupacasath, Taku Tlingit, and many others have invested heavily in building their expertise and experience in the clean energy sector - several as owners and developers of projects. Our vision for the future differs significantly from the IRP.

Support for Clean Energy

Support for clean energy has been seen at the provincial level from First Nations and local governments. The First Nations Summit on September 27 resolved, "That the First Nations Summit Executive engage leadership from the Province and BC Hydro to

ensure that the Integrated Resource Plan is revised to include reflections of First Nations input." In addition, recently the Union of BC Municipalities (UBCM) endorsed a resolution stating that, "in order to remain globally competitive in a fast changing world, the federal government be requested to work with the UBCM and Federation of Canadian Municipalities (FCM), to develop a new energy strategy prioritizing green-sector jobs and clean energy innovation". The IRP, as currently drafted, does not prioritize green-sector jobs or clean energy innovation. Wealth creation opportunities should put First Nations and local communities first, allowing dividends and success to flow to local communities.

Our Vision

We have two proposals that are of particular relevance to the IRP. **First, at least 50 percent of the energy used to power new LNG plants should be produced using clean energy.** This will assist in off-setting the greenhouse gas emissions created, as well as create substantial economic opportunities for First Nations communities.

If planned LNG projects and northern development are entirely powered by gas-fired generation, the environmental impacts will be unacceptable to First Nations and many other British Columbians. Some 75 million tonnes of GHGs along with unacceptable levels of nitrous oxides, sulphur oxides and particulate matter could be in our future. BC's legislated 2020 GHG target is 45 million tonnes. In addition, if BC secures four LNG plants, as stated by Minister Coleman, the equivalent electrical power needed could be between 30,000 to 50,000 GWh of energy; however, the IRP is only planning for a load of 3,000 GWh. BC Hydro suggests that the energy demand should be met by on-site gas-fired generation and BC Hydro assets such as Site C. Underestimating the potential for LNG and northern development load, as well as relying on BC Hydro assets and on-site generation greatly reduces the room for First Nations involvement and eliminates the possibility to spread the employment and economic benefits associated with LNG projects around the province. In some areas, this will greatly impact First Nations plans to close the socio-economic gap. This is unacceptable, particularly when clean energy options exist.

Second, greater opportunities should be created for First Nations involvement in the clean energy sector. A First Nations "prescribed" level of participation should be required in any clean power call or a specific First Nation clean power call launched. The current BC Hydro Standing Offer Program should be revised to require First Nations participation or to allow for prioritized access to procurement or enhanced capacity for projects where such participation exists. Creating a First Nations call for power would create new significant economic opportunities while meeting other demands, as mentioned above.

More generally, BC's approach to energy development and the IRP must first and foremost, protect the environment by utilizing the cleanest power options possible. Second, it must ensure First Nations have robust opportunities to participate in energy development projects on our lands.

BC Hydro IRP Comment Form

Supporting LNG: We support the development of clean energy and believe as stated that, if these projects are to proceed, at least 50% of the energy needed to power these plants should be provided by clean energy.

Conserving First: We support the use of energy conservation measures; however, we believe that these measures should be paired with responsible and sustainable IPP development.

Powering Tomorrow: We do not believe that relying on BC Hydro proposed projects such as Site C or the historic infrastructure projects is appropriate. IPP development is critical to sustainable long-term economic development within First Nations communities. The SOP, as currently drafted, is not sufficient to provide for economic opportunities.

Managing Resources: the current draft of the IRP, as stated above, does not meet the objectives of the Clean Energy Act or our vision of the future. We strongly disagree with BC Hydro's proposed management of resources.

Conclusion

We are seeking the BC Hydro's commitment to work collaboratively with First Nations including the First Nations Leadership Council to maximize our opportunities in the energy sector. We have developed a position paper (attached), which outlines a number of our recommendations for future energy development. We believe it provides a place to begin the conversation. Furthermore, we seek assurance that additional and adequate consultation will occur with First Nations leadership prior to approving the BC Hydro Integrated Resource Plan.

Signed on behalf of the *shíshálh* Nation:

Chief Garry Feschuk

"Absent"
Councilor Jordan Louie

Councilor Ashley Joe

Councilor Christopher August

"Absent"
Councilor Benedict Pierre

cc.
Minister Rustad, Aboriginal Relations and Reconciliation
Minister Thomson, Forests, Lands and Natural Resource Operations
Minister Bennett, Energy and Mines

shíshálh Nation
(Sechelt)
PO Box 740
Sechelt, BC
V0N 3A0

Lílwat Nation
PO Box 602
Mount Currie, BC
V0N 2K0

Sliammon First Nation
6686 Sliammon Road
Powell River, BC
V8A 0B8

Squamish Nation
320 Seymour Blvd.
North Vancouver, BC
V7L 4J5

Klahoose First Nation
1730 Tork Road, Box 9
Squirrel Cove, BC
V0P 1T0

DRAFT Integrated Resource Plan Response and Position Paper – October 2013
Maximizing First Nations IPP Opportunities in British Columbia

Background

This paper builds on our September 2013 IPP Positions Paper and shíshálh's letter to Premier Clark of September 17, 2013 and is in response to BC Hydro's 2013 Integrated Resource Plan (IRP). Independent Power Producer (IPP) activity throughout BC triggers requirements for consultation and accommodation with First Nations and an interest by Nations in the development at all stages – prospecting, permitting, approvals, construction and operation. Over the last 11 years, referral activity and IPP activity on First Nations lands, and related impacts, have increased exponentially. This is a direct result of new IPP and energy policies introduced in 2001/2002 and reinforced in subsequent revised energy plans in the decade that followed.

IPP policy, by in large, has been brought forward and in some cases implemented without meaningful consultation with First Nations. The current IRP is an opportunity to change that history and to work with First Nations to create greater opportunities and involvement in the clean energy sector.

Clean energy has become an increasingly important part of First Nations economic development within British Columbia. First Nations have played a leading role in Independent Power development within British Columbia. Impact Benefit Agreements (IBAs) have been negotiated with numerous First Nations across the province, and First Nations have taken equity or ownership positions in many projects.

In 2007, a group of First Nations led negotiations with the Province to create the First Nations Clean Energy Business Fund (FNCEBF). The fund was intended to facilitate First Nations' involvement in the clean energy sector and help First Nations explore opportunities for clean energy development. In 2011, a Memorandum of Understanding between Clean Energy BC (CEBC) and various First Nations' was also signed to ensure

First Nations' opportunities and involvement in this sector. First Nations across this province are becoming increasingly reliant on this sector and are working in conjunction with industry to ensure sustainable development and maximize benefits for their communities.

The First Nations' who have most forcefully worked together and, with FNEMC, have advocated for proper IPP development and related changes to clean energy policies include: shíshálh; Lil'Wat; Squamish; Sliammon; and Sts'ailes. These Nations are, not coincidentally, disproportionately impacted by all phases of IPP development as a result of their proximity to load and transmission infrastructure, climate, water and terrain. Their territories contain the prime opportunities for run of river development and the opportunities and challenges that have gone with that development. It is this same group of Nations that, to further increase the effectiveness of the efforts, has directly engaged CEBC to ensure that run of river developments are consistent with, and reflect the expectations of, these First Nations.

BC's approach to energy development and the IRP must first and foremost protect the environment by utilizing the cleanest power options possible. The Clean Energy Act (CEA) set objectives including:

- Generating at least 93% of all electricity from clean or renewable resources in British Columbia, and
- Using clean or renewable resources to help achieve provincial greenhouse gas (GHG) reduction targets.

We believe if the objectives of the CEA are pursued this vision can be achieved; however, we believe changes are needed in how energy procurement occurs, First Nations participation is ensured, and development is undertaken.

Energy Procurement Process

We have seen considerable attrition rates in the IPP sector over the last number of calls. The procurement process is flawed and requires some revision. We would like to recommend the following principles as essential elements in the next call:

1) All projects should provide an opportunity for First Nations equity participation and should demonstrate First Nations support;
2) There should be broad commitment to a price range;
3) Projects should demonstrate as a part of the EPA process they have the finances in place and a proven developer to build the projects;
4) Regional strategies to create opportunities for local communities to meet demand should be developed; and
5) Transmission lines should be developed and maintained in a coordinated manner while providing First Nations participation.

Calls for Power and Power Acquisition

First Nations Call for Power

First Nations across this province are becoming increasingly reliant on this sector and are working in conjunction with industry to ensure sustainable development and maximum benefits for their communities. This sector could be critical in meeting the objectives set in the Premier's directions to Ministers including the Minister of Aboriginal Relations and Reconciliation (MARR), the Clean Energy Act, and the BC Jobs Plan.

Recommendation: A First Nations Clean Call for Power should be established to acquire an additional 250 MW (700-800GWh) of clean energy over five years.

Specific "First Nations Call" examples:

1. The Call could require a certain percentage of First Nations equity involvement, or
2. The Call could require First Nations majority ownership.

Standing Offer Program

The Standing Offer Program (SOP) was unilaterally revised and requirements were restricted in the IRP, further limiting opportunities for First Nations. The SOP could represent a significant opportunity for First Nations economic development.

Recommendations: The SOP should be revised to ensure greater First Nations participation. First, the SOP program should be increased to 100 GWh (30 MW) a year. Second, a level of First Nations equity participation or strong support should be required for each project. Third, larger projects, over 15MW and with significant First Nations equity participation, 20% or greater, should be considered within the SOP program. Fourth, clusters of 15MW projects, with significant First Nations participation, should be considered within the SOP program.

First Nations Support and Participation

BC Hydro's current RFP process does not work for First Nations. It is cumbersome, results in significant attrition, creates false expectations, and awards EPA's PRIOR to proper due diligence regarding project impacts and First Nations engagement. As such, for any future BC energy supply that is desired or required from IPP developments, a whole new model needs to be considered as the basis to engage and acquire that power – a model that ensures that benefits flow locally with proper First Nation engagement and participation. Wealth creation opportunities should include First Nations, allowing dividends and successes to stay local.

BC Hydro's IPP acquisition process takes place in one of three ways: direct award contracts; Standing Offer Program; and, RFPs (requests for proposal). In all instances, a "prescription" should be introduced by way of First Nation specific criteria that a proponent must demonstrate and execute in order to be eligible to submit any application to BC Hydro for the purposes of receiving an Energy Purchase Agreement.

Renewable energy projects could be awarded "priority points" for demonstrating prescribed elements of "aboriginal participation" and "aboriginal support". The prescribed element, First Nation participation and support for a project, could be a crucial criterion that is recognized as and awarded through a higher likelihood of receiving EPA contracts. Combined with an enhancement of the First Nations Clean Energy Business Fund, this mechanism could increase opportunities for First Nations to participate in the clean energy industry and for developers to increase their chances of receiving an electricity purchase agreement (EPA).

As it relates to BC, prescriptions – or criteria – currently exist as established by BC Hydro, BC Government policy or legislation. These criteria, all required for a project to be eligible for an EPA, cover areas related to environmental assessment, permitting, "green" eligibility, tenure, water licensing, land use designations, consultation and so on.

We propose that BC Hydro also establish basic prescriptions relating to First Nations opportunities in IPP submissions. These criteria would apply to all clean energy developers submitting any project to BC Hydro for the purpose of receiving an EPA.

Recommendations: We would like BC Hydro to issue a future call for clean power in a manner that has a First Nations "prescribed" level of participation – setting basic levels of First Nations partnership as a criterion and prerequisite for eligibility for any RFP or call. Second, we would recommend that the current BC Hydro Standing Offer Program be revised and amended in a similar manner. First Nations could then determine if and how they would like to participate in or support a project..

What principles should it follow?

1. Applies equally and fully to all developers or proponents submitting any project to BC Hydro for the purposes of seeking an EPA;
2. Applies equally and fully Province-wide;
3. Applies equally and fully to all defined green energy projects – wind, solar, micro hydro, biomass, etc.;
4. A project that does not demonstrate that the criteria have been met and will be executed will not be accepted by BC Hydro for review or consideration;
5. Applies equally and fully to all BC Hydro private power project acquisitions, including direct award contracts, SOP and all RFPs/calls for power;
6. Prescriptions/criteria should be designed to increase First Nation's economic involvement and participation in IPP developments;
7. Prescriptions/criteria should be commercially focused; and

8. Any prescription or criteria would be in addition to and distinct from negotiated benefits agreements and BC Government revenue sharing agreements.

Specific Prescribed Call examples

1. First Nation Equity Option – any First Nation upon whose territory an IPP is being advanced is provided an "option" by the developer to acquire on commercial terms a minimum defined percentage of equity in the project. This option would be granted at the discretion of the Nation. Success in receiving an EPA could be recognized through a number of mechanisms including a set-aside program (setting aside a minimum of contract awards exclusive to those who meet the criteria), or point system.
2. Set aside 40% of any future call as designated for First Nation participation, defined as 20% or more.

First Nation Clean Energy Business Fund

The Clean Energy Act identified and implemented one recommendation from the First Nations' submission to the Clean Energy Task Force – the First Nations Clean Energy Fund (FNCEBF) that provides capacity funding, equity opportunities and revenue sharing based on a formula.

Equity Participation

When the fund was announced with an initial endowment of $5 million and with a maximum of $500,000 per equity grant, it was clear that the fund could not satisfy the aspirations of the Nations in whose territories the IPP industry was most active; however, a $500,000 grant could perhaps be leveraged with commercial financing and go towards making First Nations true participants in the industry.

Subsequently, 70 First Nations received $4 million from BC's FNCEBF for feasibility analysis, planning and equity investments to participate in the clean energy sector. These funds have been essential in enabling First Nations to participate meaningfully in the clean energy industry; however, it is clear the original investment is not sufficient to meet the needs of First Nations. The original intent of the fund was to create First Nations equity participation in IPPs; unfortunately, that has not come to pass as the fund has mostly been used for completion of clean energy resource inventories on First Nations territories. We now need to refocus on the original intent and ensure First Nations equity participation. Targeted capacity to First Nations who have opportunities for equity participation in IPP projects in their territories should be ensured. The objective of "capacity funding" should be defined more narrowly. Capacity funding should be focused on acquiring financing and financing equity participation.

Recommendations: Grants of a meaningful size should be awarded to First Nations participating in strong IPP projects. The original endowment of $5 million should be increased to enable First Nation participation in the 2010 EPAs as well as future EPAs.

First Nations should be eligible for larger grants to ensure significant equity participation. The Premier should add an additional $1 million to the fund in 2014/15 as was her commitment in the Liberal 2013 Platform. Alternatively, the Province should look at other means of facilitating the equity participation of First Nations.

Transmission Development Opportunities

IPPs bring new transmission developments, which often make previously unviable projects and applications viable – an unintended and often undesired consequence. In addition, current transmission line infrastructure requires considerable maintenance. Transmission line development and maintenance can and should also provide considerable economic and social benefit to First Nations.

Recommendations: First, much greater attention needs to be paid to the transmission impacts that result from IPP development; this should be done in light of both cumulative effects and consequential impacts on other projects. Second, there should be a focus on opportunities for First Nations participation in ownership and revenue sharing. Third, companies who work in partnership with First Nations including developing joint ventures or training programs, subject to meeting competitive and reasonable market rates, should be directly awarded line work within the First Nations' territory.

Respectfully,

Chief Garry Feschuk, *shíshálh* Nation and on behalf of the Klahoose Nation; Tla'amin Nation, and Lil'wat Nation

Chief Gibby Jacob Squamish Nation

Stk'emlupsemc te Secwepemc Nation
PO Box 188
Savona, BC V0K 2J0
P: 250 373-0023
F: 250 373-0025

October 16, 2013

Premier Clark
PO Box 9041 STN PROV GOVT
Victoria, BC
V8W 9E1

via email: premier@gov.bc.ca
via fax: 1-250-387-0087

Minister Bennett
Minister of Energy and Mines
PO Box 9060, STN PROV GOVT
Victoria, BC
V8W 9E2

via email: MEM.Minister@gov.bc.ca

Re: Response to BC Hydro's Integrated Resource Plan from Stk'emlupsemc te Secwepemc

BC Hydro's Integrated Resource Plan (IRP) has identified significant and sustained local growth across the Province for the next 20 years. The IRP proposes that the incremental load growth will be dealt with by a combination of supply mechanisms, most importantly the construction of Site C dam. The Stk'emlupsemc te Secwepemc are opposed to the construction of this mega project because of its impact on First Nations peoples, specifically the flooding of critical ungulate natal areas, flooding of highly productive food gathering areas including farming areas, the potential for massive increases/schedule delays and the negative effects on the electricity rates, and the lost opportunity for First Nations peoples to contribute to the Province's energy solution through regional distribution generation.

We would like to propose that BC Hydro contemplate a gas fired generation facility in the Savona area as an alternative to the Site C project. Skeetchestn Band, a representative of Stk'emlupsemc have identified an industrial site with excellent fundamentals including an existing large gas transmission line, a BC Hydro substation nearby, and excellent access off a provincial highway, and have developed a commercial relationship with an experienced and well-funded developer/operator.

This proposed facility would outperform Site C on the basis of schedule, cost and risk. A gas-fired generation facility could be constructed within 5 years for a much lower price per kWh as compared to Site C. In addition, cost and schedule risk can be offloaded onto the developer, thereby protecting BC Hydro and the ratepayers. The proposed facility is very flexible and could provide either emergency backup or base load power. This would provide BC Hydro with considerable optionality for system reliability.

We would be please to meet with you and BC Hydro to discuss this option further and explore how we can work with BC Hydro and the Province towards achieving our energy goals in the most reliable and cost-effective manner.

In closing, we are committed to working on our energy plan that includes alternative energy sources including such as solar, wind, geothermal and the harnessing of efficient small turbines. We look forward to hearing from you at your earliest convenience.

Yours truly,

STK'EMLUPSEMC TE SECWEPEMC NATION

Chief Shane Gottfriedson

Chief Ron Ignace

cc Charlie Weiler, Acting Manager, Legal and Regulatory, Integrated Resource Plan, BC Hydro, Aboriginal Relations, 6911 Southpoint Drive, 10th Floor, Burnaby, BC V3N 4X8 – via e-mail: 2013irp@bchydro.com

Stk'emlupsemc te Secwepemc Nation
PO Box 188, Savona, BC V0K 2J0
Ph: (250) 373-0023
Fax: (250) 373-0025

4690 Salish Way | Agassiz, BC V0M 1A1
t 604 796 2116 | w stsailes.com

Sts'ailes

October 17, 2013

Charlie Weiler
Acting Manager, Legal and Regulatory
Integrated Resource Plan
BC Hydro, Aboriginal Relations
6911 Southpoint Drive, 10th Floor
Burnaby, BC, V3N 4X8
Via email: 2013irp@bchydro.com

Re: First Nations' Vision for Clean Energy Development in BC and BC Hydro Integrated Resource Plan

We are writing in response to the revised BC Hydro Integrated Resource Plan. Clean energy has become an increasingly important part of First Nations economic development within British Columbia. Sts'ailes and many other First Nations have played a leading role in Independent Power development within British Columbia. Impact Benefit Agreements (IBAs) have been negotiated with numerous First Nations across the province, and First Nations have taken equity or ownership positions in many projects.

In 2007, a group of First Nations led negotiations with the Province to create the First Nations Clean Energy Business Fund. The fund was intended to facilitate First Nations involvement in the clean energy sector and help First Nations explore opportunities for clean energy development. In 2011, a Memorandum of Understanding between Clean Energy BC and various First Nations was also signed to ensure First Nations opportunities and involvement in this sector. First Nations across this province are becoming increasingly reliant on this sector and are working in conjunction with industry to ensure sustainable development and maximize benefits for their communities.

We were dismayed to read that the recently released BC Hydro Integrated Resource Plan (IRP) failed to address, in any way, the desire and expectation of First Nations across the Province to be involved in the continued growth of the clean energy sector. This is of particular surprise, as the May 2012 draft, which underwent initial consultation with First Nations, recommended the development of a clean energy procurement process to acquire an additional 2,000 GWh/yr of clean energy by 2018. The most recent draft eliminates this recommendation. The current IRP, by and large, has no role for First Nations and only extremely limited opportunities for new procurement. This contradicts the Premier's directions to Ministers including the

Minister of Aboriginal Relations and Reconciliation (MARR), the Clean Energy Act, and the BC Jobs Plan.

Letters to Ministers
The IRP, as currently drafted, directly contradicts the Premier's mandate letters to Ministers including:

> **Natural Gas (Minister Coleman).**
> Ministerial Initiative No. 3 – "*Maximize the use of clean power in LNG projects while preserving maximum provincial revenue generation opportunities*"
>
> **Aboriginal (Minister Rustad)**
> Ministerial Initiative No. 3 – "*Work with BC First Nations that are impacted by natural extraction, pipelines or LNG facilities to ensure they are provided with the ability to participate in this generational opportunity*"
>
> **Environment (Minister Polak)**
> Ministerial Initiative No. 5 – "*Work with the Minister of Natural Gas Development, ensure that LNG Operations in British Columbia are the cleanest in the world*"
>
> **Energy (Minister Bennett)**
> Ministerial Initiative No. 8 – "*Work with the Clean Energy sector to ensure that there remain significant opportunities for renewable energy companies to provide power to British Columbia*"

Clean Energy Act
The IRP, as currently drafted, also directly contradicts or side steps the Clean Energy Act, which set objectives including:

- Generating at least 93% of all electricity from clean or renewable resources in British Columbia.
- Using clean or renewable resources to help achieve provincial greenhouse has (GHG) reduction targets.

BC Jobs Plan
The BC Jobs Plan identified "Technology, Clean Tech and Green Economy" as one of the eight critical sectors for BC's growth, and the Province committed to working with communities and industries to develop strategies to create economic opportunities in these sectors. The IRP effectively eliminates much of the potential clean energy development in BC, flying in the face of this commitment.

Further, the Jobs Plan committed to:

- "Improve relationships between Aboriginal communities, industry and government, as well as help implement practical measures for economic development...[and] enhance Aboriginal peoples' capacity for economic participation..."

Clean energy development, we believe, partially meets these objectives.

MARR

In a letter dated June 10, 2013, the Premier directed Minister Rustad to, "keep your ministry focused on the BC Jobs Plan". As noted above, we believe the IRP will not meet the objectives of the Jobs Plan. Further, the following initiative was also set for MARR, to "Work with BC First Nations to ensure they participate in the Standing Offer Program by BC Hydro through the First Nations Clean Energy Business Fund". As the Standing Offer Program (SOP) is limited to projects under 15 MW this will severely impact potential opportunities for First Nations. Further, the SOP was unilaterally revised and requirements restricted in the IRP, further restricting opportunities for First Nations. There needs to be a systematic consultation process with First Nations to ensure that opportunities are maximized and Minister Rustad can execute the direction provided by the Premier.

The IRP could also drastically impact existing First Nations clean energy projects. The relationships built and approvals granted by First Nations for these projects were premised on the expectation that the projects would supply long-term energy to BC Hydro. The IRP indicates that only 75% of Electricity Purchase Agreements (EPAs) for small hydro projects will be renewed. We assume BC will compensate First Nations for the lost revenue, revenue provided as compensation for impacts to our title and rights. Further, the IRP indicates the BC Hydro intends to cancel many of the existing EPAs, EPAs which many First Nations are relying upon for economic development. Both of these proposals do not meet the objectives outlined in the Clean Energy Act, BC Jobs Plan, or the letters to the Ministers.

Further, 70 First Nations have received $4million from BC's First Nations Clean Energy Business fund for feasibility analysis, planning and equity investments to participate in the clean energy sector. In addition, these First Nations have invested their own capital and time into the analysis and planning of projects. If the IRP is approved it will pre-emptively eliminate future First Nations involvement in the clean energy sector for many years to come and result in the loss of much of the effort and capital invested to date. First Nations like shishalh, Sts'ailes, Squamish, Sliammon, Klahoose, Kwakiutl, Namgis, Tahltan, Halfway River, West Moberly, Kitselas, Lil'wat, Hupacasath, Taku Tlingit, and many others have invested heavily in building their expertise and experience in the clean energy sector - several as owners and developers of projects. Our vision for the future differs significantly from the IRP.

Support for Clean Energy

Support for clean energy has been seen at the provincial level from First Nations and local governments. The First Nations Summit, on September 27 resolved, "That the First Nations Summit Executive engage leadership from the Province and BC Hydro to ensure that the Integrated Resource Plan is revised to include reflections of First Nations input." In addition, recently the Union of BC Municipalities (UBCM) endorsed a resolution stating that, "in order to remain globally competitive in a fast changing world, the federal government be requested to work with the UBCM and Federation of Canadian Municipalities (FCM), to develop a new energy strategy prioritizing green-sector jobs and clean energy innovation". The IRP, as currently drafted, does not prioritize green-sector jobs or clean energy innovation. Wealth creation opportunities should put First Nations and local communities first, allowing dividends and success to flow to local communities.

Our Vision

We have two proposals that are of particular relevance to the IRP. **First, at least 50 percent of the energy used to power new LNG plants should be produced using clean energy.** This will assist in off-setting the greenhouse gas emissions created, as well as create substantial economic opportunities for First Nations communities.

If planned LNG projects and northern development are entirely powered by gas-fired generation, the environmental impacts will be unacceptable to First Nations. Some 75 million tonnes of GHGs along with unacceptable levels of nitrous oxides, sulphur oxides and particulate matter could be in our future. BC's legislated 2020 GHG target is 45 million tonnes. In addition, if BC secures four LNG plants, as stated by Minister Coleman, the equivalent electrical power needed could be between 30,000 to 50,000 GWh of energy; however, the IRP is only planning for a load of 3,000 GWh. BC Hydro suggests that the energy demand should be met by on-site gas-fired generation and BC Hydro assets such as Site C. Underestimating the potential for LNG and northern development load, as well as relying on BC Hydro assets and on-site generation greatly reduces the room for First Nations involvement and eliminates the possibility to spread the employment and economic benefits associated with LNG projects around the province. In some areas, this will greatly impact First Nations plans to close the socio-economic gap. This is unacceptable, particularly when clean energy options exist.

Second, greater opportunities should be created for First Nations involvement in the clean energy sector. A First Nations "prescribed" level of participation should be required in any clean power call or a specific First Nation clean power call launched. The current BC Hydro Standing Offer Program should be revised to require First Nations participation or to allow for prioritized access to procurement or enhanced capacity for projects where such participation exists. Creating a First Nations call for power would create new significant economic opportunities while meeting other demands, as mentioned above.

More generally, BC's approach to energy development and the IRP must first and foremost, protect the environment by utilizing the cleanest power options possible. Second, it must ensure First Nations have robust opportunities to participate in energy development projects on our lands.

BC Hydro IRP Comment Form

Supporting LNG: We support the development of clean energy and believe as stated that, if these projects are to proceed, at least 50% of the energy needed to power these plants should be provided by clean energy.

Conserving First: We support the use of energy conversation measures; however, we believe that these measures should be paired with responsible and sustainable IPP development.

Powering Tomorrow: We do not believe that relying on BC Hydro proposed projects such as Site C or the historic infrastructure projects is appropriate. IPP development can be critical to economic development within First Nations communities. The SOP, as currently drafted, is not sufficient to provide for economic opportunities.

Managing Resources: the current draft of the IRP, as stated above, does not meet the objectives of the Clean Energy Act or our vision of the future. We strongly disagree with BC Hydro's proposed management of resources.

Conclusion

We are seeking BC Hydro's commitment to work collaboratively with First Nations including the First Nations Leadership Council to maximize our opportunities in the energy sector. Furthermore, we seek assurance that additional and adequate consultation will occur with First Nations leadership prior to approving the BC Hydro Integrated Resource Plan.

Sincerely,

Chief Harvey Paul
Sts'ailes

cc.
Minister Rustad, Aboriginal Relations and Reconciliation
Minister Thompson, Forest Lands and Natural Resource Operations
Minister Bennett, Energy and Min

Treaty 8 Tribal Association

10233 – 100th Avenue, Fort St. John, BC, V1J 1Y8

Phone: (250) 785-0612 Fax: (250) 785-9800 or 785-2021

Website: www.treaty8.bc.ca

October 18, 2013

Charlie Weiler
Acting Manager, Legal and Regulatory
Integrated Resource Plan
6911 Southpoint Drive, 10th Floor
Burnaby, BC V3N 4X8
Fax: 604-528-2822
Email: 2013irp@bchydro.com

Re: Treaty 8 Comments – Integrated Resource Plan

Dear Mr. Weiler,

Thank you for your letter of August 29, 2013 concerning BC Hydro's 2013 Integrated Resource Plan ("2013 IRP"). We are writing to provide BC Hydro with comments on behalf of Doig River, Halfway River, Prophet River and West Moberly First Nations (the "Treaty 8 First Nations" or "T8FNs") concerning the IRP, and the IRP process to date.

Additional detailed comments concerning the implications of the 2013 IRP in relation to the proposed Site C Project may be provided to BC Hydro and the Provincial Crown through other processes, including the environmental assessment process for Site C. For this reason, we have copied BC Hydro Site C representatives on this submission.

CONSULTATION ISSUES

1. Consultation not commensurate with potential impacts and implications

Site C is the only project specifically contemplated in the IRP process, and so potentially affected Treaty 8 First Nations should have been consulted directly from the outset of the planning process and not merely as "other First Nations in British Columbia". The "same" consultation is not "equivalent" consultation when the courts have clearly stated that deeper consultation is required based on the nature of the potential impacts on Section 35(1) Rights.

The Treaty 8 First Nations are profoundly affected by the IRP, which recommends proceeding with the Site C Project. This recommendation and the analysis underlying it are likely to play an important role in the upcoming environmental assessment hearings on Site C. Furthermore, as indicated in the Consultation Summary (Table 7-2), most BC First Nations indicated that they would support the position taken by the First Nations local to the Site C project, i.e. the T8FNs. For all these reasons, we consider it important to attempt to provide thorough and in-depth comments on the 2013 IRP.

Overall, the two sets of workshops, the limited funding offered First Nations to attend these workshops, and the actions carried out by BC Hydro do not amount to adequate or meaningful consultation with our First Nations. This is especially the case considering the implications of the outcomes of the IRP process for potential hydroelectric development on the Peace River in Treaty 8 territory.

2. Inadequate time and information for adequate Consultation

In general, the timeframe for finalization of the IRP is not conducive to adequate consultation with potentially-affected First Nations. This issue has been raised throughout the process. It is not reasonable to expect the T8FNs or other Aboriginal groups to comprehend the considerable implications of the IRP in the timeframe provided.

In particular, the 2013 IRP represents an in-depth revision of the Draft IRP published in 2012 ("2012 IRP"). It is unfortunate that BC Hydro chose not to produce a document describing either the methodological modifications applied to the 2012 IRP or the changes in the resulting analytical findings contained in the 2013 IRP.

Each document is hundreds of pages long, not counting the appendices. We have reviewed portions of both documents in detail, and have identified very significant modifications, many of which we find very problematic and, at times, incoherent.

In certain respects, the 2013 IRP is incomplete, in that it fails to provide enough supporting information to allow an informed judgement about several key elements. Because the changes from the 2012 IRP are extensive, information provided earlier cannot be brought to bear in the analysis of the 2013 IRP.

These circumstances make it impossible for the T8FNs to prepare an exhaustive review of the 2013 IRP within the short time period provided.

The Treaty 8 First Nations have therefore chosen to present these high-level preliminary comments on the 2013 IRP within the consultation deadline imposed by the Minister. Subsequently, we intend to submit written questions (requests for information) to BC Hydro, seeking fuller explanation and supporting data, where appropriate.

PLANNING ISSUES

These high-level preliminary comments focus on the following planning issues:

- Approaches to energy planning.
- Treatment of uncertainty.

- Rate impacts.
- Planning methodology.
- Treatment of DSM costs.
- Capacity.
- Alternatives to Site C on the Peace River.
- Fostering First Nation development.

3. Approaches to energy planning

The 2013 IRP begins with consideration of a number of potential alternative futures for economic growth in British Columbia, and then goes on to ask how much energy will be required, and from where and when, in order to meet the various economic growth scenarios. The merits, sustainability or possibility of continued economic growth are never addressed, as economic growth is taken as the appropriate starting point for the energy planning process.

> "Our province has an enviable quantity of future sources of clean and renewable energy." (2012 IRP, Executive Summary, p.5)

Potential resources (e.g. rivers, hillsides, forests, etc.), which currently meet other needs and satisfy other values, are presumed to be available for exploitation to serve our energy needs. There is no analysis as to whether this can be sustainably achieved and, if so, under what possible conditions.

One could, however, take a very different approach. Rather than the economy determining the amount of energy we require, the available and sustainable energy resources could determine the kind of economy that we could afford to have in British Columbia. In other words, energy planning would consider and respect the real limits that restrain continued energy development within the Province and provide the planning boundaries and values for the responsible development of energy resources, and ultimately of a sustainable economy. This approach would prevent the incremental and eventual development of all of the technically feasible energy resources of British Columbia, which is the logical outcome of the approach taken in the IRP. This "limits-based" or preventive approach would begin by acknowledging, among other things, that:

- sufficient conservation lands and waters need to be identified and set aside throughout the Province based on the maintenance of biodiversity – for example, only 4% of the Peace Region is currently protected, which is well below the 20-30% considered necessary by conservation biologists, and below the objective of 12% set by the Province for the year 2000;[1]
- sufficient lands and waters would be set aside, in consultation with Aboriginal groups, for the exercise of treaty and Aboriginal rights throughout the Province in areas traditionally used;

[1] Fort St. John LRMP Working Group. 1997. Fort St. John Land and Resource Management Plan. File: 31090-25-04.

- GHG emissions would be set so as to fall over time to a *per capita* limit consistent with maintaining global temperature increases below +2C; and
- a sufficient agricultural reserve would be maintained to permit the Province to be self-sufficient in food production should that become necessary.

A limits-based approach would achieve sustainability in energy use within the Province. This contrasts with the approach taken in the IRP, which simply seeks to slow down the growth in electricity demand.

While conservation is important, at current levels it will not prevent the eventual exploitation of all available and technical suitable rivers (for hydro), forests (for biofuels), hillsides (for wind) and meadows (for solar) in the service of energy production, not to mention the substantial lands taken up by fossil fuel development. While conservation partially mitigates the adverse effects of the development process, the eventual outcome is the incremental and eventual degradation of extensive lands and waters within the Province in the service of economic growth *vis-à-vis* energy production.

The limitations of the deterministic approach can also be seen in relation to the 7% limit of non-GHG electricity included in the *Clean Energy Act*. Built-in GHG emission increases are inherent to the deterministic planning approach in which continual growth in electricity demand goes unquestioned. Under this approach, the GHG emissions continue to rise in absolute terms as a result of growth in supply. This is clearly illustrated in Figure 6-1 Available Headroom from Non-Clean Firm Energy and Figure 6-2 Available Headroom from Non-Clean Capacity, where GWh of natural gas units of electricity and therefore also GHG emissions continue to rise indefinitely.

BC Hydro has reached the limits of the conventional approach to energy planning to deliver sustainable outcomes. In order to ensure sustainability, a preventive approach is required that sees economic and energy development taking place within ecological limits and ensures the protection of land and waters for sustainable use.

4. Treatment of uncertainty

Despite its formidable analytical expertise, BC Hydro has systematically refused to explore the implications for its proposed resource plan (based largely on Site C) of scenarios where load growth and/or power market prices are lower than forecast, or that DSM results are better than planned. In particular, the rate impacts of Site C in a low load/high DSM deliverability scenario, which would likely be dramatic, are not examined.

In failing to do so, BC Hydro has ignored the lessons of its neighbour, the Northwest Power Planning Council. The NPPC is a recognized leader in power planning, and in particular in developing methodologies to address uncertainty. The following excerpt from the Fifth Plan, published in 2005, remains extremely relevant to BC Hydro's IRP:

> **Decision Making Under Uncertainty**
>
> Strategic decision-making models use and manage uncertainty differently from many simulation models that incorporate uncertainty. The key difference between the two is the scale of risk and how a decision maker responds to uncertain events.

> An example of a simulation that addresses uncertainty, but is **not** what we would call a strategic decision analysis, is how many utilities model hydro generation.... Because the variation in hydro generation averages out over a sufficient number of years with high probability, the average generation and average system cost are useful statistics, and may be the key outputs of interest.
>
> The decision maker may need to make a choice among different plans to deal with this variation in hydro generation, but the tool she uses is essentially sensitivity analysis, albeit sophisticated sensitivity analysis. This kind of analysis is appropriate where the scale of the uncertainty and risk is small enough that the decision maker feels she can live with the outcomes, given the selected plan. In particular, the emphasis is on choosing a plan to which the decision maker feels comfortable committing.
>
> This approach is common to many kinds of analysis. For example, it would be the way an industrial engineer would represent a manufacturing process, if he wanted to maximize productivity. ...
>
> Against these examples, contrast strategic decision analysis. If the scale of change is large, extreme outcomes may be catastrophic. If the outcome would be catastrophic, the decision maker may need to consider individual scenarios. ...
>
> An example of strategic decision analysis is planning for a military operation. In the fog of war, leaders must make life or death decisions about tactics and strategy. In addition to the main plan, strategists will develop Plan B, Plan C, and so forth, alternatives to implement if circumstances are not as expected. They create options by deploying resources and small numbers of troops to monitor enemy activity and serve as support if it becomes necessary to adapt to new scenarios.
>
> Note that a general would never consider implementing a fixed strategy, one without options or alternatives, based on average survival. If an option will spare a life, it merits consideration. Whereas the average hydro generation over five or six years is a useful number for certain calculations, such as average power cost, failing to adapt military plans because the expected distribution was acceptable would be ludicrous and tragic. **In decision analysis, the tails of the distribution, especially the "bad" tail, assume greater significance than they do in ordinary simulations.** Adaptations that improve the outcomes in the worst of circumstances receive emphasis. **Decision-making under uncertainty has more to do with making decisions that, while they may not have been optimal in retrospect, did not lead to a catastrophic outcome.**[2] (emphasis added)

Although BC Hydro has run a wide variety of scenarios, there is no indication that it has paid particular attention to the "bad tails". Indeed, the portfolio analysis is focused on making multi-billion dollar decisions based on small differences in (discounted) present value, without regard for the potential for extremely adverse outcomes.

Extreme rate increases would represent a potentially catastrophic scenario. As rate impacts are not calculated or presented, one is left with the impression that each scenario is equally acceptable.

---

[2] Northwest Power Planning Council, Fifth Northwest Electric Power and Conservation Plan, Appendix P, Risk and Uncertainty, pages P-4 to P-5.

According to the 2011 government *Review of BC Hydro,* BC Hydro is facing substantial rate increases in coming years, for reasons that have nothing to do with its resource plan. Even under the best of circumstances, the additional rate increases that flow from developing new resources will be substantial.

BC Hydro's load forecast claims to take elasticity effects into account – in other words, to take into account the price of electricity in forecasting the amounts that will be used in the future. However, nowhere is it stated what future rate increases have been used in calculating this elasticity effect. In any case, it is clear that the load forecast does not take into account the differential rate impacts that would flow from the wide range of scenarios explored in the IRP.

This is not merely a theoretical flaw. There is no doubt that under certain circumstances, rate increases would be significantly greater than in the base case. How much greater? BC Hydro takes pains not to provide any information in this regard.

If the resulting rate increases were great enough to cause further loss of load – whether through general economic contraction, through increases in distributed generation, or through the departure from the grid or from British Columbia of certain large industrial loads — a negative spiral could occur. Falling load combined with high fixed costs – once Site C is built, its costs will be sunk and unavoidable for many years – would result in ever greater rate increases, as those fixed costs will have to be spread over a smaller and smaller number of kWh. In the worst case, such a spiral could have catastrophic consequences for British Columbia.

Avoiding such a scenario should be a key objective of the 2013 IRP. Even under less extreme conditions, adverse outcomes could lead to rate impacts that, while not catastrophic, violate Energy Objective 2(f), discussed in the next section. Again, by avoiding any quantitative assessment of rate impacts under the various scenarios it explores, the IRP makes it impossible to assess the risk of such an outcome.

5. Rate Impacts

In Table 1-1, BC Hydro indicates how the 2013 IRP responds to each of the Energy Objectives mentioned in the Clean Energy Act (CEA). The first of the objectives listed (section 2(f) of the Act) is:

> "to ensure that [BC Hydro's] rates remain among the most competitive of rates charged by public utilities in North America."

BC Hydro's response to this key Energy Objective is lengthy but imprecise:

> BC Hydro places priority on this objective given that BC Hydro has a service obligation pursuant to section 39 of the *UCA* in accordance with its tariffs, the fact that the IRP is designed to address customer electricity demand and because of BC Hydro's relationship with its customers.
>
> In the IRP BC Hydro generally uses the BCUC's definition of 'cost-effectiveness', which in addition to low cost includes schedule/deliverability risk, reliability, timing, location and environmental impacts. BC Hydro considers that the recommended actions in Chapter 8 are the most cost-effective way (consistent with other requirements) to reduce costs in

> the short-term consistent with other requirements, meet the projected longer-term energy and capacity load/resource gaps, and therefore the optimal way to reduce revenue requirements and ensure that BC Hydro's rates remain competitive. Refer to Chapter 6, where BC Hydro emphasizes: (1) portfolios with the lowest Present Value (**PV**) costs; and (2) the lowest UECs or UCCs when examining potential resources. (underlining added)

If the *CEA*'s Energy Objective had been "to ensure that BC Hydro uses the most cost-effective resources," this response might have been adequate. However, cost-effectiveness and rate impacts are not the same thing.

In fact, nowhere in the IRP are future rates discussed, either for a reference case or for any of the scenarios explored. In the absence of such an analysis, it is impossible for BC Hydro to make any affirmation at all about future rates. It certainly is in no position to affirm that they will "remain among the most competitive of rates charged by public utilities in North America," as required by this statutory Energy Objective.

In fact, as the June 2011 *Review of BC Hydro* made clear, substantial rate increases are to be expected in the coming years, even without Site C, due to the current capital plan ($7 billion over the next three years) and the high levels of regulatory asset balances. Given the statutory objective to ensure that BC Hydro's rates remain among the most competitive charged by public utilities in North America, the utility had an obligation to systematically examine the rate implications of the various scenarios and alternatives under study.

We know that BC Hydro has the tools to carry out rate forecasts. The *Review of BC Hydro* produced by the provincial government in June 2011 states (p. 93):

> In order to illustrate the impact of [the self-sufficiency] policy on rates, BC Hydro performed a number of cost calculation scenarios. The costs of self-sufficiency using critical water levels with insurance was compared with the costs of self-sufficiency should the definition be changed to average water levels with no insurance. Changing the definition of self-sufficiency could have the effect of mitigating rate increases by up to 8% in 2016 and 20% in 2020 under current low market prices. ... (underlining added)

Clearly, then, BC Hydro has the capacity to predict future rates under a given set of assumptions, as it did in response to requests from the Review Panel.[3] Given the statutory energy objective quoted above, such rate forecasts should form part of the IRP.

It is also true that, all else being equal, lower cost resources will lead to lower rates. But this simplistic view leaves out a critical variable: the energy and capacity balance. Over-acquisition of a less expensive resource can be more expensive, and have a greater rate impact, than acquisition of the needed amounts of a more expensive resource — especially when load growth net of DSM is modest, the value of surplus energy is very low and the value of surplus

[3] T8FNs requested on October 3, 2013 that BC Hydro provide it with documentation of the rate forecasting methodology used as well as the scenarios studied. BC Hydro refused to do so, claiming that "the requested materials are in the nature of policy advice for the Minister and Cabinet."

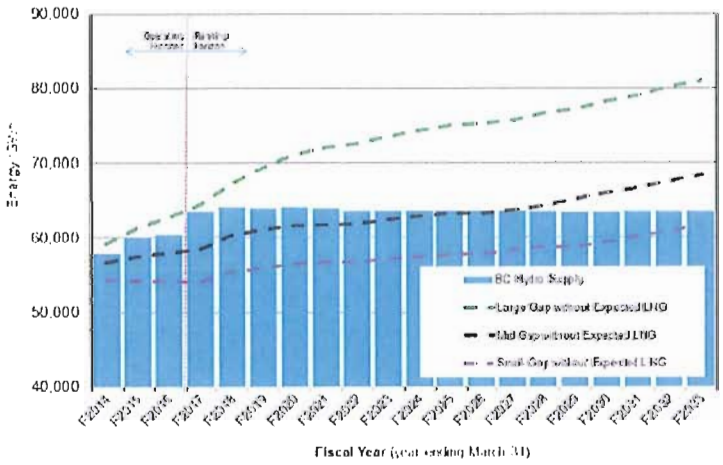
capacity is near zero. According to BC Hydro's analysis of export markets presented in Chapter 5 of the IRP, there is no expectation that these conditions will change in the near term.

Many — indeed, most — of the drivers affecting future energy and capacity needs are beyond the control of BC Hydro. Furthermore, as recent history has demonstrated, these drivers can change rapidly and unpredictably. BC Hydro's success or failure over the next 20 years as measured by rate impacts is likely to reflect above all its ability to navigate the unpredictable twists and turns of the energy economy.

BC Hydro's portfolio analysis, in which the 20-year load growth path is fixed in advance for each scenario, provides only very limited insight into this question — especially because BC Hydro pays little or no attention to low load growth scenarios. (High growth scenarios are analyzed in the context of contingency plans.)

While scenarios based on low load growth are indeed found in Appendix 6A, there is little if any trace of them in the analyses presented in the IRP. One of the few exceptions is found in s. 6.4.4.5 (Large and Small Gaps), within the Site C section of Chapter 6. Below, in Fig. 6-7, we see that, under the small gap scenarios, continuing with Site C results in very substantial surpluses right to the end of the planning period.

Figure 6-7 Energy Load Resource Balance for Large, Mid and Small Gap



Neither the financial nor the rate impacts of such a scenario are mentioned.

While BC Hydro does not state this disinterest clearly in the IRP, it did so in the context of the Environmental Assessment process for Site C where, in response to a question from the T8FNs, BC Hydro responded:

> Consistent with good utility practice and previous BCUC decisions, BC Hydro plans to the mid load forecast. The need for the Project is therefore based on the mid load forecast and no portfolios were created or evaluated using the high or low load forecasts. BC Hydro continues to consider the high and low load forecasts – described in Section 5 ('Sensitivity Analysis') of the 2012 Load Forecast, a copy of which is attached to the Technical Memo on Project Need – qualitatively in its analysis of uncertainty and in the case of the high load forecast, quantitatively in its contingency resource planning as described in Section 5.2.3 of the EIS. (underlining added)

Having ignored a whole range of possible futures in its planning process, BC Hydro cannot then affirm that the rate impacts under those futures would be minor.

6. Planning methodology

The 2012 IRP was based on a straightforward planning methodology. Load growth scenarios were identified (Chapter 2), the characteristics of each potential resource option (demand- and supply-side) were identified (Chapter 3, Resource Options). Then, in the portfolio analysis, presented in Chapter 6 (Resource Planning Analysis), System Optimizer was used to identify the optimal combination of supply- and demand-side resources to meet each load scenario.

In the 2013 IRP, however, this straightforward methodology was abandoned. In section 6.3 (Demand-Side Measures), instead of examining the options for demand-side solutions to its resource needs, BC Hydro jumps directly to the question of Site C:

> "The analysis jointly considers the continued cost-effectiveness of Site C and the appropriate DSM reliance to minimize short-term costs while continuing to provide cost-effective long term savings" (p. 6-22).

In other words, the DSM options are examined in the context of the proposed Site C project.

At the same time, System Optimizer is no longer allowed to select by optimization when or whether Site C is needed, in a given scenario. Rather, that choice is imposed by BC Hydro.

We consider each of these issues in turn.

Many passages of this section of the IRP display the contradictions inherent in making the analysis of the optimal DSM option dependent on Site C.

> "The initial analysis tests whether Site C continues to be a cost-effective resource given the current BC Hydro DSM target (Option 2)." (p. 6-26)

But why does the initial analysis of DSM options involve Site C? Under the straightforward methodology of the 2012 IRP, the initial analysis looked at the cost-effectiveness of each DSM option – on its own. Now, however, DSM Option 3 is evaluated only in the context of Site C, or of alternate supply-side resources of equivalent size:

> "The next analysis was to determine if DSM Option 3 would be a lower cost potential alternative to Site C. DSM Option 3 on its own would only defer the need for Site C's energy output for two years (from F2027 to F2029, without Expected LNG). To be an alternative to Site C, DSM Option 3 must be augmented with additional supply side

resources to match Site C's energy and dependable capacity output." (p. 6-27) [underlining added]

Thus, DSM Option 3 is penalized by the surplus produced by developing Site C (or equivalent quantities of unneeded energy and capacity produced by other means):

> "A portfolio with Option 3 was also compared to a portfolio with Option 2/DSM Target, both with Site C and no natural gas-fired option. The comparison shows that given Site C, staying with Option 2/DSM Target would avoid costly surplus and has a $260 million lower PV cost than DSM Option 3." (p. 6-27)

In other words, if Site C together with DSM Option 3 would result in a surplus, then DSM Option 3 is deemed to be too aggressive.

> "The conclusions on the DSM target and Site C's continued role will determine whether there is any need for clean or renewable IPP resources." (p. 6-22)

If DSM Option 2 together with Site C results in a surplus, then there is no need to even consider whether or not other clean and renewable IPP resources would produce a better result. Conveniently, under this approach, there is no occasion to ask if some combination of DSM and IPP renewables would produce a satisfactory result, while avoiding the risk of expensive surplus (and consequent rate impacts) that would inevitably accompany any portfolio based on Site C.

Thus, the methodological framework has been "tweaked" to make Site C the centerpiece of the analysis. Other resources are evaluated in terms of whether or not they improve, or harm, the economics of Site C.

As no justification was presented for this important change, the reader is left with the distinct impression that this was done in order to make Site C unavoidable. While there may be an explanation, the failure to present it undermines the credibility of the entire IRP process.

7. Treatment of DSM costs

The 2012 IRP addressed in considerable detail the implications of the December 2011 amendments to the DSM regulation under the Utilities Commission Act (pages 6-28 to 6-31). It states:

> "The amended DSM regulation recognizes that DSM can produce a range of benefits. In addition to avoided electric energy costs, these benefits can also include avoided electric capacity costs, avoided natural gas costs and non-energy benefits (**NEB**) (e.g., operation and maintenance savings resulting from the installation of an energy efficient measure)." (p. 6-29)

The regulation specifies methods for calculating avoided natural gas costs and non-energy benefits. These methods were integrated into the Draft IRP as follows:

> "For comparison with costs shown in Chapter 3, this IRP represents DSM costs in three ways:

a) DSM gross cost (i.e., not reflecting any of the "additional benefits");

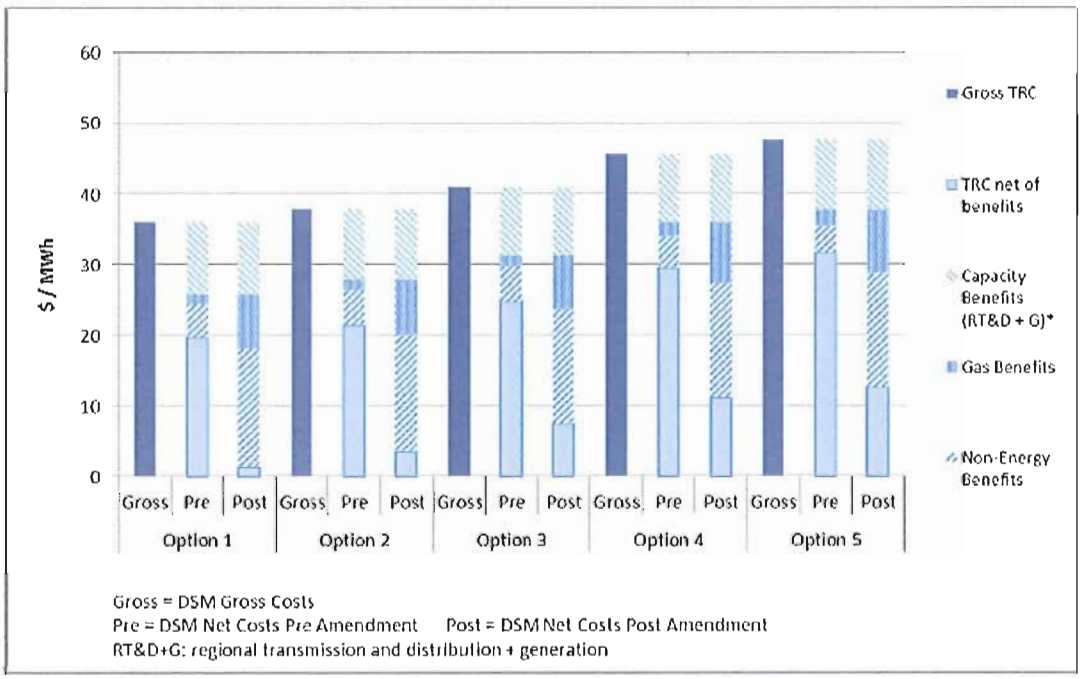
b) DSM net cost pre-amendment (i.e., reflecting "additional benefits" as estimated by BC Hydro); and

c) DSM net cost post-amendment (i.e., reflecting "additional benefits" as prescribed by the amended DSM Regulation)." (p. 6-30)

A figure is then presented showing the implications for net DSM costs of these three ways of estimating additional benefits. Figure 6-10, reproduced below, shows that, based on method b) (the bottom segment of the middle bar of each group), these benefits reduced the net cost of DSM by some 50% (for Option 1), ranging down to 33% (for Option 5), compared to method a) (the gross DSM costs, shown in the left-most bar of each group).

Using method c), however — the bottom segment of the right-most bar in each group —, the additional benefits reduce the net cost of DSM much more: by over 90% for Option 1, ranging down to 75% for Option 5.

Figure 6-10 DSM TRC Average for DSM Options (Mid)



In the 2012 IRP, BC Hydro applied the 2011 DSM Regulation amendments in its portfolio analysis. For each scenario described in Appendix 6A, portfolio Present Values were calculated for both the Gross DSM Cost (method a) and for the Net DSM Cost, **based on the methods for calculating non-energy and other additional benefits set out in the 2011 DSM Regulation**

amendments (method c).[4] Depending on the scenario, the Net Costs were lower than the Gross Costs by a factor of up to six.[5]

It should also be noted that, in the discussion of demand-side measures in the portfolio analysis of the 2012 IRP (chapter 4 of Appendix 6A), all the graphs presented are based on "Net TRC (Post Amendment)", i.e. method c).

Given the importance of this issue in the 2012 IRP, it is striking to observe that it has disappeared entirely from the 2013 IRP. In fact, it was only through painstaking cross-references between poorly written passages that the T8FNs were able to piece together the approach to DSM costs that underlies the portfolio analysis. Here is what we found:

1) Appendix 6A states that:

> "DSM Option Cost shown is DSM Total Resource Cost (**DSM TRC)** reflective only of regional transmission and distribution capacity benefits for BC Hydro. Explanation of the TRC is provided in section 3.3.4.1 of the IRP." (p. 6A-3)

2) Section 3.3.4.1 reads as follows :

> "As described in section 1.2.1, subsection 3(1) of the *CEA* requires that BC Hydro submit an IRP to the Minister "that is consistent with good utility practice". Consistent with good utility practice, among other things BC Hydro is guided by the TRC and UC tests as described by the *California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects*, (**California Standard Practice Manual**) to screen DSM. BC Hydro identifies the cost and benefit components and cost-effectiveness calculation procedures for DSM as follows:
>
> - The TRC measures the overall economic efficiency of a DSM initiative from a resource options perspective. In particular, the TRC measures the costs of a DSM initiative based on the net costs of the initiative, including both participant and utility costs. The benefits are the avoided supply costs – BC Hydro refers to this result as the **gross TRC**. The California Standard Practice Manual and many other jurisdictions also recognize that DSM results in a range of other benefits, such as a reduction in capacity costs (generation, transmission and distribution), specific non-energy benefits (e.g., operation and maintenance savings resulting from the installation of an energy efficient measure) and avoided participant costs aside from electric utility bills (such as natural gas and water savings) – BC Hydro refers to this result as the **net TRC**. Inclusion of these benefits increases the cost-effectiveness of DSM. Except where specifically noted, BC Hydro uses the net TRC. ..." [underlining added]

Several comments are required.

---

[4] 2012 Draft IRP, page 6A-3.

[5] For example, in scenario L1H_BXC_KN0_000 (p. 6A-54), gross DSM costs are over $3 billion and net DSM costs are only $530 million.

First, the attribution of costs in a portfolio analysis (Appendix 6A) is very different from the screening process mentioned in the first paragraph of the above citation from s.3.3.4.1.

Second, there is nothing in "good utility practice" that specifies the use of DSM TRC in a portfolio analysis. On the contrary, as we shall see below, BC Hydro's inappropriate use of these costs in a portfolio analysis is contrary to good utility practice.

Third, the citation erroneously suggests — probably due to poor drafting — that the avoided supply costs are included in the gross TRC.

Fourth, this citation — which, it should be recalled, was specifically referred to in relation to the portfolio study (Appendix 6A) — states that, except where specifically noted, BC Hydro uses net TRC, leading the reader to assume that the portfolio study does indeed use net TRC. However, careful reading of the referring passage quoted above (paragraph 1) reveals that it "specifically notes" an exception to the use of net TRC, in adding that "DSM Total Resource Cost **(DSM TRC)** [is] reflective only of regional transmission and distribution capacity benefits for BC Hydro." It is our understanding that this means that BC Hydro has chosen not to use **either** of the pre-amendment and post-amendment versions of net TRC costs set out in the 2012 IRP (based on the definition of non-energy benefits pre- or post-amendment).

Rather, BC Hydro has chosen to use gross DSM Total Resource Costs (TRC) reduced only by "regional transmission and distribution capacity benefits for BC Hydro". This is in fact a fourth version of DSM TRC, distinct from each of the three bars presented in Figure 6-10 (shown above). This new version of DSM TRC nets out only the top-most portion of the "Pre-" and "Post-" bars — about $10/MWh — from gross DSM TRC, ignoring the remainder of the additional gas and non-energy benefits discussed in the 2011 DSM Regulation amendments.

In other words, BC Hydro now chooses to recognize only those benefits that accrue directly to the utility. In doing so, it ignores the spirit of the 2011 amendments to the DSM Regulation, which clearly intended to ensure that non-energy benefits (which by definition accrue to parties other than BC Hydro) were taken into account. However, since the formal object of that regulation was screening of DSM programs by the BCUC, and not Integrated Resource Planning, it can be said that BC Hydro is not contravening the letter of the regulation.

The approach used here —including only those benefits that accrue directly to the utility — is not in itself counter to good utility practice, but it is inconsistent with the Total Resource Cost Test. In fact, this approach is that of the Program Administrator Cost (PAC) Test, also described in the California Standard Practice Manual (chapter 5). This test answers the question, "Will utility bills decrease as a result of the DSM measures?", by comparing direct utility costs to the avoided costs of supply-side resources.[6] (In contrast, the TRC Test answers the question "Will the total societal cost of meeting energy needs decrease?" by comparing utility and customer

[6] National Action Plan for Energy Efficiency (2008). *Understanding Cost-Effectiveness of Energy Efficiency Programs: Best Practices, Technical Methods, and Emerging Issues for Policy-Makers,* Energy and Environmental Economics Inc. and Regulatory Assistance Project, p. 2-2.

costs to avoided resource costs.) Thus, the PAC Test "compares energy efficiency as a utility investment on a par with other resources."[7]

What is clearly **counter to good utility practice** is to use a methodology that **includes the costs borne by third parties** but **excludes the benefits that accrue to these third parties**. This is what BC Hydro has done, using DSM TRC costs, but counting only the benefits that accrue directly to the utility (i.e., the benefits that would be used for the PAC Test). Thus, it excludes energy (gas) and non-energy benefits that accrue to third parties while at the same time including non-utility costs — an unacceptable asymmetry.

In other words, on the cost side, we are to include the total costs of the program, including costs borne by participants, it stands to reason that, on the benefit side, we must also include the benefits accruing to participants. These are precisely the "additional benefits" addressed in the 2011 DSM Regulation — the same additional benefits that were included in the 2012 IRP but that are excluded from the 2013 IRP.

Thus, to be consistent, BC Hydro must either put back the additional benefits, using the Net TRC (method c) instead of the Gross TRC (net of capacity benefits, which of course are benefits that accrue to the utility, not to participants), or it must eliminate participant costs from its assessment of Gross DSM costs. As participant costs often range between 1/3 and 2/3 of Total Resource Cost, these modifications would have very significant effects. In practice, removing participant costs from the Total Resource Cost test is equivalent to replacing it with the Program Administrator Cost Test, which "examines the costs and benefits of the energy efficiency program from the perspective of the entity implementing the program."[8]

As usual, no indication was made of this methodological change from the 2012 IRP, nor is any justification presented for it. The effect, though, is clear: it dramatically increases the cost of DSM in the portfolio analysis, and therefore diminishes the relative advantages of scenarios that rely more heavily on DSM. Once again, the net effect is to reinforce the apparent cost-effectiveness of Site C, which constitutes the primary supply-side recommendation of the Integrated Resource Plan.

In this case, the chosen methodology, in addition to being poorly presented and in apparent contradiction with governmental policy, as expressed in the 2011 DSM Regulation and as presented in the 2012 IRP, in fact creates real analytical bias in favour of supply-side resources.

By using DSM TRC, which includes participant costs, but excluding additional benefits that accrue to those participants, BC Hydro creates an unlevel playing field that seriously handicaps scenarios that rely more heavily on DSM. Until this problem is resolved, the results of the System Optimizer portfolio analysis, which is in fact the primary analysis underpinning the IRP as a whole, cannot be relied upon.

---

[7] Ibid., p. 6-4.

[8] National Action Plan for Energy Efficiency (2008), p. 6-2.

8. Capacity

A careful reading of the 2013 IRP makes clear that the recommended capital program — of which the centerpiece is the $7.9 billion Site C project — is justified essentially by BC Hydro's forecast long-term needs for capacity, not energy. While BC Hydro has chosen not to make this point overtly in the IRP, it is an unavoidable conclusion.

We first consider near- to mid-term needs, and then turn to the long term.

Near- and mid-term needs

BC Hydro has "no need for incremental resources in the near to mid-term ..., regardless of the potential demand from LNG."[9] Indeed, given the existing surplus and the financial pressures on BC Hydro, the utility is making considerable efforts to scale back forecast incremental resources in the coming years, including DSM (p. 4-6).

These efforts in fact compromise future DSM as well, as BC Hydro considers these near-term reductions to be incompatible with any DSM Option more aggressive than Option 2.[10] They also contradict the conclusions of the 2012 IRP, which stated:

> "Despite the near-term energy surplus situation, BC Hydro should maintain its current trajectory of DSM activities as opposed to ramp down its DSM activities in face of load uncertainty. The potential regret as a result of ramping down is more costly." (p. 6-42; emphasis added)

The 2012 IRP also concluded that "Increasing DSM targets from Option 2 to Option 3 is a cost effective balance of decreasing ratepayer impacts and securing environmental and economic development benefits versus increasing deliverability risk in the face of significant load and DSM savings uncertainty." (p. 6-42) Again, this conclusion has been reversed in the 2013 IRP, due to the incompatibility of Option 3 with a near-term ramping down of DSM expenditures.

Long-term needs

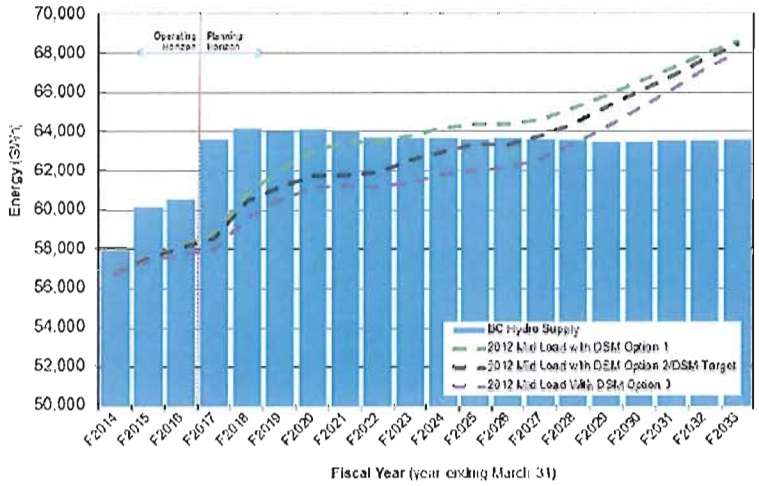
Even after scaling back incremental resources, BC Hydro has an energy surplus through F2028 (without LNG) or through F2022 with Expected LNG (Table 4-18, p. 4-27). Figure 6-3 shows the Energy Gap after DSM (mid-gap), with surplus through most of the 2020s.

---

[9] IRP, p. 4-4.

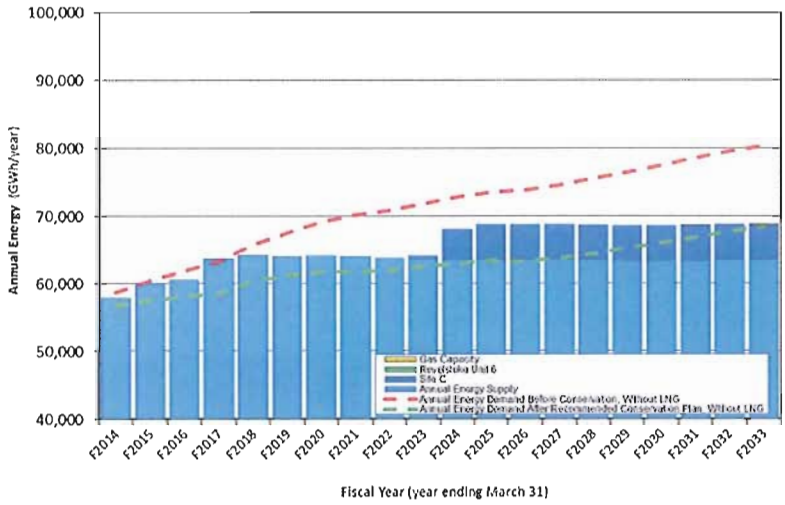
[10] "A version of Option 3 with near term reductions was not included in the analysis. Option 3 would only be selected if needed to fill the resource gap beyond Option 2. If that higher resource level was required, BC Hydro would not reduce Option 3 expenditures in the near-term due to the deliverability risk in recovering to Option 3 savings levels (uncertainty with the ramp rate assumptions)." IRP, p. 3-17.

Figure 6-3 Energy Gap after DSM Options 1 to 3 (Mid Gap)



As a result, the Base Resource Plan shows an energy surplus throughout the entire planning period, as seen in Fig. 8-3.

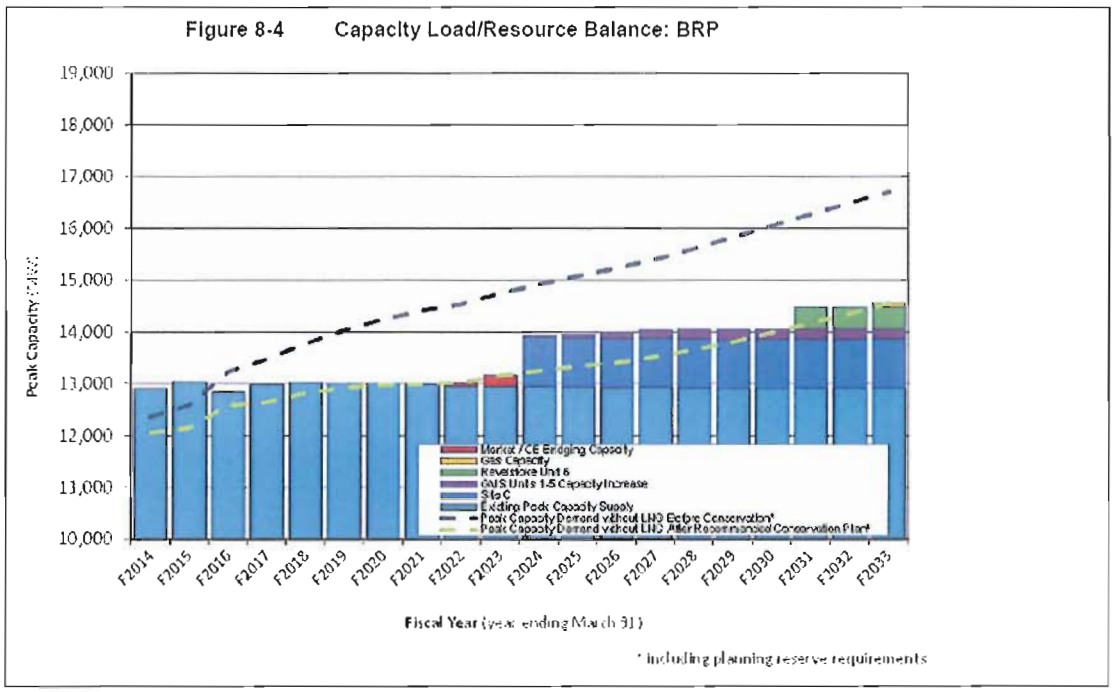
Figure 8-3 Energy Load Resource Balance: BRP



Furthermore,

> "The risk of energy shortfall is less of a concern for BC Hydro because more short lead time options are available, and given BC Hydro system's energy shaping capability, it is less risky to rely on the market for energy in the meantime before additional resources can be built to mitigate the shortfall. (p. 6-121)

However, capacity needs appear sooner, as seen in Fig. 8-4:



In terms of contingency planning, BC Hydro is clearly more concerned about capacity than energy, as seen in this passage from p. 6-121:

> "The risk of capacity shortfall is BC Hydro's primary concern because capacity is required at specific times to meet peak load requirements and maintain system security and reliability. BC Hydro also has limited short lead time capacity options in BC and relying on market comes with the risks as discussed in section 6.9.3.1."

Given the importance of capacity needs in driving the massive and financially risky (if forecast demand does not materialize) investment in Site C, it is surprising, to say the least, how little attention is paid in the IRP to alternate solutions to meeting future capacity needs.

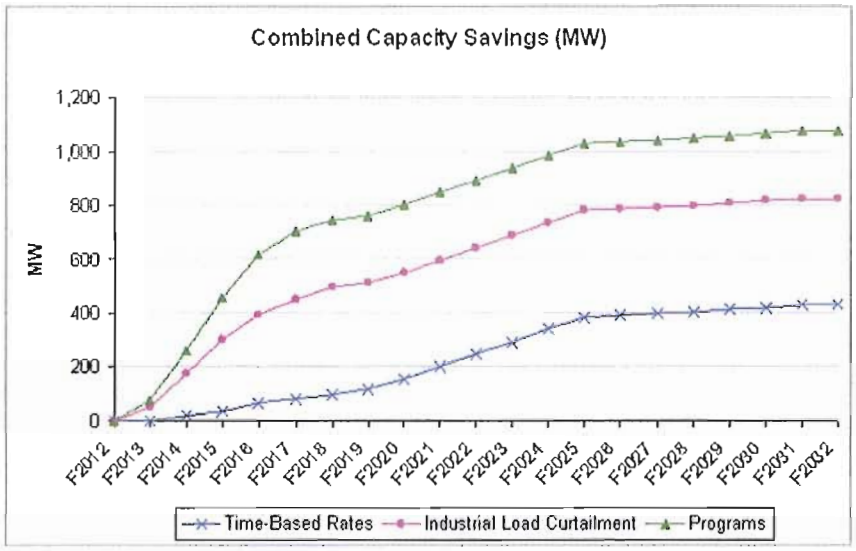
Capacity-Focused DSM Options are discussed in both the 2012 IRP and the 2013 IRP. It is acknowledged that, while BC Hydro has little experience with them to date, they may in future years become available as long-term capacity resources. (2012 IRP, p. 9-36).

It should be noted, however, in the Environmental Impact Statement for Site C, DSM Capacity Initiatives are considered to be a Screened (not viable) Resource (EIS, p. 5-30).

In the 2013 IRP, two DSM Capacity-Focused Options are discussed: industrial load curtailment (with a potential of about 400 MW), and specific DSM programs (with a potential of about 200 MW). In the 2012 IRP, however, a third option was also identified: time-of-use rates, with a capacity potential of 400 MW. This option was removed from the 2013 IRP, with the explanation that "in accordance with government policy, BC Hydro has no plans to implement Time-Based Rates to address capacity requirements" (p. 3-24, note 22).

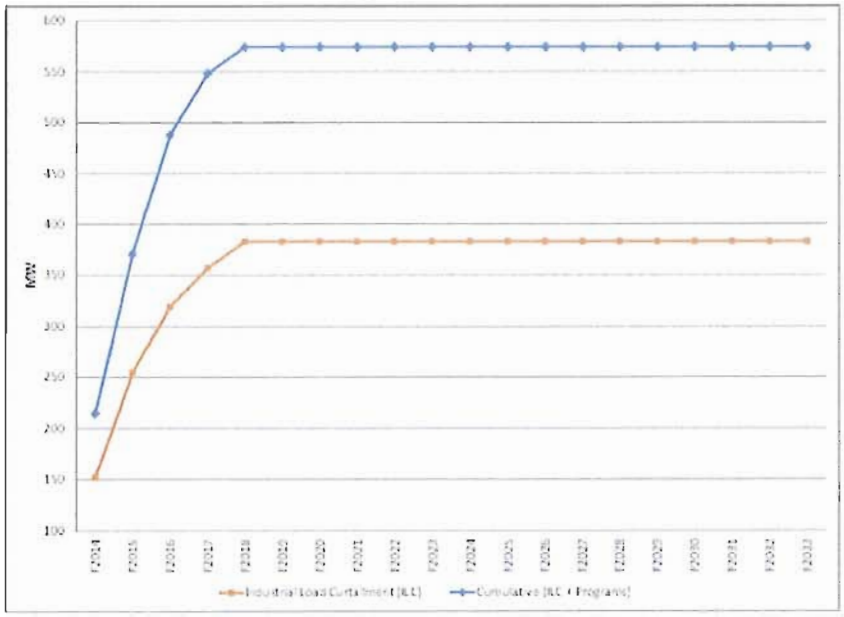
Consequently, the total potential for capacity-focused DSM options was reduced from over 1000 MW to under 600 MW, as seen in these two figures:

Figure 4–4 Combined Capacity Savings (MW)



2010 ROR, p. 4-25 (also Fig. 3-4 of 2012 IRP)

Figure 4-5 Combined Capacity Savings (MW)



2013 ROR, p. 4-29 (also Fig. 3-5 of 2013 IRP)

BC Hydro did not identify the policy document on which its exclusion of the potential capacity savings from time-of-use rates was based. However, this appears not to be immutable policy. Indeed, the current government has recently expressly indicated its interest in time-of-use rates for industrial customers in the supplemental mandate provided by the Minister of Energy and Mines to the Industrial Electricity Policy Review Task Force.[11]

It is thus to be expected that, once BC Hydro has developed more experience with capacity-focused DSM, this will be recognized as a legitimate resource for meeting capacity needs. Given the long-term nature of BC Hydro's forecast capacity requirements, it is inappropriate to exclude such significant resources on the basis that, today, deliverability has not been proven.

The 1000 MW of savings from capacity-focused DSM identified in the 2012 IRP (before BC Hydro inappropriately removed 400 MW of potential related to time-of-use rates) is roughly equivalent to the capacity of Site C. Unlike Site C, it is a flexible resource, with much shorter lead-times and much lower unit cost.

BC Hydro fixes its Long Run Marginal Cost for capacity at $50-$55/kW-year, for F2017 through F2030.[12] Total Resource Costs of Capacity-Focused DSM are also in this range: $31/kW-year for

[11] Letter dated June 19, 2013.

[12] IRP, p. 8-50.

Industrial Load Curtailment, and $55/kW-year for Capacity-Focused Programs.[13] (No unit cost was provided for the savings flowing from time-of-use rates; they are presumably very low.)

Despite the fact that Site C is designed primarily to meet BC Hydro's future capacity needs, its costs are provided in terms of energy only. Viewed as a capacity resource, Site C is probably much more expensive than other capacity resources identified — though BC Hydro has consistently declined to calculate a UCC for the project. There is no doubt that it is considerably more expensive than capacity-focused DSM.

Clearly, Site C is a resource that would produce both capacity and energy. Given that its energy will be largely surplus to needs for many years and of very little value on the export market, it should be properly characterized (and priced) as a capacity resource that also produces energy.

Had it been presented in this way, the options for meeting those capacity needs, and their relative costs, would have been far clearer.

9. Alternatives to Site C on the Peace River

A review of the 2013 Resource Options Report Update contained as Appendix 3A-1 to the 2013 IRP indicates that:

- the installed capacity of Province-wide run-of-river facilities considered in the IRP ranges from about 4 MW to 250 MW, and alternative hydroelectric generation projects to Site C on the Peace River are within that range;
- the firm unit energy costs for Province-wide run-of-river facilities considered range from about $143/MWh to $1170/MWh, and alternatives on the Peace River are within and at the lower end of that range;
- the Site C Project on the Peace River is considered and is reported to have a capacity of 1100 MW and a firm unit energy cost of $88/MWh (at a 5% real discount rate); and
- no other hydroelectric developments on the Peace River are considered.

The decision not to consider other potential smaller-scale hydroelectric developments on the Peace River appears to be inconsistent with other considerations made in the Resource Options Report. The Peace River cascade facilities are within the range of the capacity and unit energy costs of the other run-of-river hydro facilities considered in the Resource Options Report, and yet they are not considered. This, despite the fact that the information available for the Peace River small hydro facilities is far more developed than for many (if not most) of the run-of-river facilities on other rivers that are considered in the Resource Options Report. Specifically, in response to questioning from the T8FNs, BC Hydro reported that a 15-m head 240-MW facility at Site 7b on the Peace River upstream from the confluence with Farrell Creek has a conceptual-level POI UEC of $175/MWh to $225/MWh. Considering that such a facility would have numerous financial benefits, including a capacity credit, its firm unit energy cost would appear to be among the best hydroelectric facilities considered in the 2013 IRP.

[13] IRP, p. 3-30.

The decision not to include potential smaller-scale hydroelectric development on the Peace River may be due to the insistence by BC Hydro, as expressed in other contexts, to "maximize the development of the hydroelectric resources" on this stretch of the Peace River. This insistence precludes the possibility for meaningful consultation and reconciliation of the desire on the part of BC Hydro to develop hydroelectric resources on the Peace River with the desire of the T8FNs to continue to use the Peace River Valley for the exercise of our Treaty rights.

10. Fostering First Nation development

Table 1-1 of the 2013 IRP identifies the Energy Objectives mentioned in the *Clean Energy Act*, including the following:

> "2(l): foster the development of First Nation and rural communities through the use and development of clean or renewable resources"

The same table then provides the following response to this objective:

> "Through the IRP consultation, BC Hydro sought input from First Nations on the topic of clean or renewable energy development in First Nations communities. BC Hydro is required to establish and maintain a Standing Offer Program (SOP) pursuant to subsection 15(2) of the CEA. Chapter 3 provides BC Hydro's resource option assessment, including how to access the information in Geographic Information System (GIS) format, which is a tool that can inform clean or renewable energy development. This CEA energy objective informed BC Hydro's IPP EPA portfolio actions; refer to Chapter 8."

The T8FNs are unclear as to how "seeking input from First Nations" during the development of the 2012 IRP and then promptly rewriting the 2013 IRP to ignore that input fosters the development of First Nation communities through the use and development of clean or renewable resources. Specifically, the 2013 IRP does not foster that development in relation to the following:

- the Clean Energy Business Fund;
- Clean energy procurement;
- the Standing Offer Program; and
- Distributed Generation and Net Metering.

Clean Energy Business Fund

In 2007, a group of First Nations led negotiations with the Province to create the First Nations Clean Energy Business Fund. The fund was then established pursuant to the *Clean Energy Act* to share the prescribed land and water revenues the government derives from power project with First Nations, and to facilitate the participation of First Nations and aboriginal people in the clean energy sector. In 2011, a Memorandum of Understanding between Clean Energy BC and various First Nations was also signed to ensure First Nations opportunities and involvement in this sector. First Nations across the province are working in conjunction with industry to ensure sustainable development and maximize benefits for their communities.

The energy and capacity load resource balances depicted in Figure 8-3 and Figure 8-4, respectively, in the 2013 IRP indicate that no independent power projects are contemplated for the entirety of the 20-year planning period. Without the development of new projects, there will be no additional money going into the Clean Energy Business Fund for revenue sharing with First Nation and no money for supporting the development of new projects. It is unclear why the Province would continue its support for the Clean Energy Business Fund if BC Hydro has no intention of purchasing any new clean energy from independent power producers.

Clean Energy Procurement

As noted above, the 2013 IRP does not contemplate any clean energy procurement within the planning period. This is particularly surprising since the 2012 IRP, which underwent consultation with First Nations, recommended the development of a clean energy procurement process to acquire an additional 2,000 GWh/year of clean energy by 2018.

In addition to the lack of procurement of new energy from independent power producers, the 2013 IRP also creates considerable uncertainty respecting renewal of existing Electricity Purchase Agreements (EPAs). The 2013 IRP indicates that only 75% of EPAs for small hydro projects will be renewed. It is unclear how BC will compensate First Nations for any adverse effects from these projects, which effects are likely to continue following decommissioning of the affected projects, if revenues previously available for compensation as a result of sale of electricity to BC Hydro are no longer available. The 2013 IRP also indicates that the BC Hydro intends to cancel many of the existing EPAs, which many First Nations are relying upon for economic development. Both of these proposals do not support the objectives of the *Clean Energy Act*.

It is unacceptable that the BC government is moving away from clean energy opportunities for First Nations when so much progress has been made with many benefits for First Nations.

Standing Offer Program

The Standing offer Program (SOP) was initiated in 2008 to encourage development of small-scale renewable energy projects in the Province. On March 26, 2013 BC Hydro amended the SOP rules to limit the participation of clustered projects that exceed 15 MW and to extend CODs for projects by up to two years.

Again, these actions will only serve to place further limitations on fostering the development of First Nations communities through the development of clean or renewable energy resources.

Distributed Generation and Net Metering Program

Appendix 3A-1 of the 2013 IRP notes that: "BC Hydro believes that additional DG potential exists and could be explored" (p.5-96). What is unclear is why these opportunities are not actually identified, analyzed and included in the IRP. While the IRP notes the impending increase in the Net Metering cap from 50 kW to 100 kW for commercial, institutional, industrial, municipal and First Nation customers, the T8FNs are concerned that this single action is insufficient, recognizing the rapidly decreasing costs and rapidly rising potential of distributed generation to meet the needs of First Nation communities, among other electricity consumers in the Province.

Keeping the net metering program capacity cap at 100kW effectively prevents self-generation for all ratepayers with power capabilities of between 101 and 1000kW. Forcing potential net metering customers into the more onerous SOP process effectively prevents self-generation for all ratepayers with power capabilities of between 101 and 1000 kW. We are recommending that the capacity cap be increased to at least 250 kW with planning initiated immediately with the objective of increasing the cap to 1000 kW within the next five years.

Overall, BC Hydro appears to be underestimating the potential of distributed generation to meet a much larger portion of provincial demand. In particular, the utility appears to be unconcerned about the potential for distributed generation to meet the needs of its current customers without being interconnected to the grid.

> "Not much of a factor a decade ago, microgrids are expected to explode into a $40 billion-a-year global business by 2020, according to Navigant Research, a clean-technology data and consulting company. In the U.S., about 6 gigawatts of electricity -- enough to power as many as 4.8 million homes -- will flow through microgrids by 2020, Navigant said."[14]

Industrial and large commercial customers, given their concerns about inevitable and substantial increases in electricity prices in British Columbia, are particularly well-positioned to self-supply as microgrid technologies become more affordable and reliable. This is especially the case if these BC Hydro customers can avoid transmission and distribution construction entirely, avoid the rate implications of further political meddling in the electricity system, and no longer have to worry about unpredictable and substantial rate increases resulting from actions or inactions taken by BC Hydro.

CONCLUSION

The weaknesses outlined above compromise the credibility of the IRP as a whole. These undocumented changes from the approach used in the 2012 IRP – preselecting Site C rather than letting System Optimizer determine when and if it is needed, artificially increasing the perceived cost of DSM by eliminating consideration of non-energy benefits, to name just two – together lend support to the key Recommended Actions, which are to limit DSM to Option 2, and to proceed to build Site C for 2024.

It is hard to avoid the perception that this is not accidental – that these methodological choices were made precisely in order to lead to this desired outcome.

BC Hydro has established an enviable reputation as a leader among Canadian utilities in energy planning. The IRP does indeed demonstrate a high level of sophistication in its planning processes. However, that sophistication must be matched by an equally high level of integrity in the application of these processes. Bending complex methodologies to accomplish a predetermined goal is unworthy of BC Hydro. More importantly, it puts at risk the fundamental

---

[14] http://www.navigantresearch.com/research/market-data-microgrids (referenced in http://www.bloomberg.com/news/2013-10-17/ebay-to-ellison-embrace-microgrids-in-threat-to-utilities.html)

interests of British Columbians, and of First Nations, for whom those planning procedures have been put in place to protect.

The Minister should require that BC Hydro rerun its portfolio analysis, ensuring that:

a) the methodology for DSM costing reflects the spirit of the 2011 DSM Regulation amendments, by taking into account the benefits of DSM that accrue to society at large (or, alternatively, that it exclude participant costs);

b) the artificial limitation created by imposing an in-service date for Site C in each scenario is removed; and

c) the rate impacts of each scenario are calculated and presented.

CLOSING

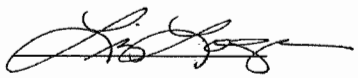
Our primary observation is that BC Hydro is the victim of an inadequate and disingenuous planning process, resulting from its own choices and those of its shareholder.

If the IRP were presented in a regulatory proceeding, as is the case for every other similar planning document in North America, the Draft IRP would have been debated and approved long ago. Then, with changing circumstances, BC Hydro would have proposed changes in the form of the 2013 IRP, which would also have been debated during a regulatory proceeding.

Instead, following a cumbersome, inadequate and ultimately meaningless engagement approach with ratepayers, taxpayers and First Nations among others, the 2013 IRP was presented as the outcome of "consultation". In reality, though, it is a very different plan from the Draft IRP, based on changed circumstances. Whether or not the changed circumstances have been perceived correctly by BC Hydro and whether or not the adjustments it proposes are appropriate cannot be properly debated in the consultation forum proposed. Instead, BC Hydro attempts to conceal these adjustments (in plain sight, buried in hundreds of pages of details), under the pretense that it is just finalizing the Draft IRP.

This serves no one, but in particular it does not serve the T8FNs, who are deprived of a forum to properly debate decisions that profoundly affect us.

Sincerely,



Tribal Chief Liz Logan

cc: Treaty 8 Chiefs Davis, Lilly, Tsakoza, Willson
Shona Nelson, Treaty 8
Trevor Proverbs, BC Hydro Site C Team

P'egp'ig'lha Council

P.O. Box 615
Lillooet, B.C.
V0K 1V0

phone (250) 256 4118
fax (250) 256 4544

October 15, 2013

Charlie Weiler, Legal and Regulatory
Integrated Resource Plan
BC Hydro, Aboriginal Relations
6911 Southpoint Drive, 10th Floor
Burnaby, BC V3N 4X8

Via email – 2013irp@bchydro.com

Dear Mr. Weiler,

We are in receipt of the 2013 BC Hydro Integrated Resource Plan (IRP). You have requested that we review the information and provide our feedback on the plan by October 18 2013.

On May 10 2011 a historic agreement was signed between BC Hydro and the St'at'imc communities. Part of this agreement was a Relations Agreement document which outlines how BC Hydro and the St'at'imc are to interact relating to ongoing BC Hydro operations. The intention of the Relations Agreement is:

> Section 2.1 Purpose and Applications
> " to provide a framework for achieving the Parties mutual goal of respectful and effective relations with respect to the following matters arising in the Territory:
>
> (e) long term planning in respect of the generation and transmission of electricity. "

Section 11 of the Relations Agreement also addressed BC Hydro Long Term Plans.

> Long Term Plans – BC Hydro agreed to meet annually with St'at'imc ...to discuss BC hydro's long term plans, to the extent that long terms plans exist or are being developed, relating to the following matters in the Territory:
>
> (b) BC hydro's long term capital plans in respect of the Facilities
> (e) transmission system development
> (f) BC Hydro's calls for power, including any other related plans of BC Hydro in respect of independent power production;

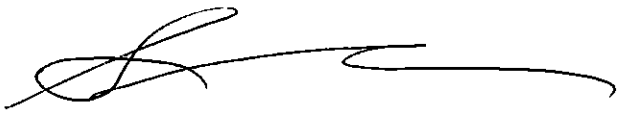
I understand that the purpose of the "IRP is BC Hydro's long term plan to cost effectively meet the forecast electricity needs of its customers of the next 20 years..." which would therefore fall under the obligations of the Relations Agreement. I also understand that this

document was issued in Aug 2013 which is after our yearly operations update between BC Hydro and the St'at'imc so it would not have been addressed through that venue.

We would like to respectfully request that the BC Hydro Integrated Resource Plan team work directly with the P'egp'íg'lha and the St'at'imc for the purpose of appropriate levels of consultation. The current process is unacceptable. Consultation is not consultation unless there is real understanding of the material. There needs to be time taken to educate the St'at'imc about the content of the IRP and how it affects the St'at'imc Territory. It is only then that we will be able to provide educated feedback and recommendations relating to the IRP.

I would appreciate the opportunity to discuss with you how BC Hydro intends to directly consult with the P'egp'íg'lha and the St'at'imc. I can be reached at 250-256-9318.

With respect,



Tribal Chief Shelley Leech
P'egp'íg'lha Council

Cc: Chief Kevin Whitney, T'it'q'et
Darryl Peters, Relations Manager, St'at'imc Governance Services
Akemi Sui, Relations Manager, BC Hydro
St'at'imc Chief Council Chiefs
Sally Thorpe, Implementation Manager, BC Hydro
Ernest Armann, Implementation Manager, St'at'imc Governance Services

Tla-o-qui-aht First Nations

PO BOX 18 TOFINO, BC V0R 2Z0
TELEPHONE: (250) 725-3233 FAX: (250) 725-4233

October 15, 2013

Charlie Weiler
Acting Manager, Legal and Regulatory
Integrated Resource Plan
BC Hydro, Aboriginal Relations
6911 Southpoint Dreive, 10th Floor
Burnaby, BC, V3N 4X8

Via email: 2013irp@bchydro.com

Re: Tla-o-qui-aht First Nations' Vision for Clean Energy Development in BC and BC Hydro Integrated Resource Plan

Like a number of other First Nations in BC, we are writing in response to the revised BC Hydro Integrated Resource Plan. Clean energy has become an increasingly important part of First Nations economic development within British Columbia. TFN is playing a leading role in Independent Power development within British Columbia. We own and control all of our projects and intend that we will own all independent Power projects within our Traditional Territory.

In 2007, a group of First Nations led negotiations with the Province to create the First Nations Clean Energy Business Fund. The fund was intended to facilitate First Nations involvement in the clean energy sector and help First Nations explore opportunities for clean energy development. In 2011, a Memorandum of Understanding between Clean Energy BC and various First Nations was also signed to ensure First Nations opportunities and involvement in this sector. First Nations across this province are becoming increasingly reliant on this sector and are working in conjunction with industry to ensure sustainable development and maximize benefits for their communities.

We were dismayed to read that the recently released BC Hydro Integrated Resource Plan (IRP) failed to address, in any way, the desire and expectation of First Nations across the Province to be involved in the continued growth of the clean energy sector. This is of particular surprise, as the May 2012 draft, which underwent consultation with First Nations, recommended the development of a clean energy procurement process to acquire an additional 2,000 GWh/yr of clean energy by 2018. The most recent draft eliminates this recommendation. The current IRP, by and large, has no role for First Nations and only extremely limited opportunities for new procurement. This contradicts the Premier's directions to Ministers including the Minister of Aboriginal Relations and Reconciliation (MARR), the Clean Energy Act, and the BC Jobs Plan.

Letters to Ministers

The IRP, as currently drafted, directly contradicts the Premier's mandate letters to Ministers including:

> **Natural Gas (Minister Coleman).**
>
> Ministerial Initiative No. 3 – "*Maximize the use of clean power in LNG projects while preserving maximum provincial revenue generation opportunities*"
>
> **Aboriginal (Minister Rustad)**
> Ministerial Initiative No. 3 – "*Work with BC First Nations that are impacted by natural extraction, pipelines or LNG facilities to ensure they are provided with the ability to participate in this generational opportunity*"
>
> **Environment (Minister Polak)**
> Ministerial Initiative No. 5 – "*Work with the Minister of Natural Gas Development, ensure that LNG Operations in British Columbia are the cleanest in the world*"
>
> **Energy (Minister Bennett)**
> Ministerial Initiative No. 8 – "*Work with the Clean Energy sector to ensure that there remain significant opportunities for renewable energy companies to provide power to British Columbia*"

Clean Energy Act

The IRP, as currently drafted, also directly contradicts or side steps the Clean Energy Act, which set objectives including:

- Generating at least 93% of all electricity from clean or renewable resources in British Columbia.
- Using clean or renewable resources to help achieve provincial greenhouse has (GHG) reduction targets.

BC Jobs Plan

The BC Jobs Plan identified "Technology, Clean Tech and Green Economy" as one of the eight critical sectors for BC's growth, and the Province committed to working with communities and industries to develop strategies to create economic opportunities in these sectors. The IRP effectively eliminates much of the potential clean energy development in BC, flying in the face of this commitment.

Further, the Jobs Plan committed to:

- "Improve relationships between Aboriginal communities, industry and government, as well as help implement practical measures for economic development...[and] enhance Aboriginal peoples' capacity for economic participation..."

Clean energy development, we believe, partially meets these objectives.

MARR

In a letter dated June 10, 2013, the Premier directed Minister Rustad to, "keep your ministry focused on the BC Jobs Plan". As noted above, we believe the IRP will not meet the objectives of the Jobs Plan. Further, the following initiative was also set for MARR, to "Work with BC First Nations to ensure they participate in the Standing Offer Program by BC Hydro through the First Nations Clean Energy Business Fund". As the Standing Offer Program (SOP) is limited to projects under 15 MW this will severely impact potential opportunities for First Nations. Further, the SOP was unilaterally revised and requirements restricted in the IRP, further restricting opportunities for First Nations. There needs to be a systematic consultation process with First Nations to ensure that opportunities are maximized and Minister Rustad can execute the direction provided by the Premier.

The IRP could also drastically impact existing First Nations clean energy projects. The relationships built and approvals granted by First Nations for these projects were premised on the expectation that the projects would supply long-term energy to BC Hydro. The IRP indicates that only 75% of Electricity Purchase Agreements (EPAs) for small hydro projects will be renewed. We assume BC will compensate First Nations for the lost revenue, revenue provided as compensation for impacts to our title and rights. Further, the IRP indicates the BC Hydro intends to cancel many of the existing EPAs, EPAs which many First Nations are relying upon for economic development. Both of these proposals do not meet the objectives outlined in the Clean Energy Act, BC Jobs Plan, or the letters to the Ministers.

Together with a number of Partner First Nations the Tla-o-qui-aht plan to have 10 green hydro projects supplying clean energy to the province by 2020. Investment in these projects to date by TFN totals $40 Million dollars. When complete the total investment will approach 1/4 of a billion dollars. These projects provide an avenue for ours and other First Nations to self-sufficiency. The IRP as it stands and the current and proposed changes to the Standing Offer Program will all but kill these projects.

Further, 70 First Nations have received $4million from BC's First Nations Clean Energy Business fund for feasibility analysis, planning and equity investments to participate in the clean energy sector. In addition, these First Nations have invested their own capital and time into the analysis and planning of projects. If the IRP is approved it will pre-emptively eliminate future First Nations involvement in the clean energy sector for many years to come and result in the loss of much of the effort and capital invested to date. First Nations like shishalh, Sts'ailes, Squamish, Sliammon, Klahoose, Kwakiutl, Namgis, Tahltan, Halfway River, West Moberly, Kitselas, Lil'wat, Hupacasath, Taku Tlingit, and many others have invested heavily in building their expertise and experience in

the clean energy sector - several as owners and developers of projects. Our vision for the future differs significantly from the IRP.

Support for Clean Energy

Support for clean energy has been seen at the provincial level from First Nations and local governments. The First Nations Summit, on September 27 resolved, "That the First Nations Summit Executive engage leadership from the Province and BC Hydro to ensure that the Integrated Resource Plan is revised to include reflections of First Nations input." In addition, recently the Union of BC Municipalities (UBCM) endorsed a resolution stating that, "in order to remain globally competitive in a fast changing world, the federal government be requested to work with the UBCM and Federation of Canadian Municipalities (FCM), to develop a new energy strategy prioritizing green-sector jobs and clean energy innovation". The IRP, as currently drafted, does not prioritize green-sector jobs or clean energy innovation. Wealth creation opportunities should put First Nations and local communities first, allowing dividends and success to flow to local communities.

Our Vision

We have two proposals that are of particular relevance to the IRP. **First, at least 50 percent of the energy used to power new LNG plants should be produced using clean energy.** This will assist in off-setting the greenhouse gas emissions created, as well as create substantial economic opportunities for First Nations communities. This is critically important. The burning of fossil fuel to liquefy more fossil fuels when recent studies have shown that by 2047 that world temperature will "go off the charts," is unacceptable. Somewhere, somehow, somebody has to stand up and say no.

If planned LNG projects and northern development are entirely powered by gas-fired generation, the environmental impacts will be unacceptable to First Nations. Some 75 million tonnes of GHGs along with unacceptable levels of nitrous oxides, sulphur oxides and particulate matter could be in our future. BC's legislated 2020 GHG target is 45 million tonnes. In addition, if BC secures four LNG plants, as stated by Minister Coleman, the equivalent electrical power needed could be between 30,000 to 50,000 GWh of energy; however, the IRP is only planning for a load of 3,000 GWh. BC Hydro suggests that the energy demand should be met by on-site gas-fired generation and BC Hydro assets such as Site C. Underestimating the potential for LNG and northern development load, as well as relying on BC Hydro assets and on-site generation greatly reduces the room for First Nations involvement and eliminates the possibility to spread the employment and economic benefits associated with LNG projects around the province. In some areas, this will greatly impact First Nations plans to close the socio-economic gap. This is unacceptable, particularly when clean energy options exist.

Second, greater opportunities should be created for First Nations involvement in the clean energy sector. A First Nations "prescribed" level of participation should be required in any clean power call or a specific First Nation clean power call launched. The current BC Hydro Standing Offer Program should be revised to require First Nations participation or to allow for prioritized access to procurement or enhanced capacity for projects where such participation exists.

Creating a First Nations call for power would create new significant economic opportunities while meeting other demands, as mentioned above.

More generally, BC's approach to energy development and the IRP must first and foremost, protect the environment by utilizing the cleanest power options possible. Second, it must ensure First Nations have robust opportunities to participate in energy development projects on our lands.

BC Hydro IRP Comment Form

Supporting LNG: We support the development of clean energy and believe as stated that, if these projects are to proceed, at least 50% of the energy needed to power these plants should be provided by clean energy.

Conserving First: We support the use of energy conversation measures; however, we believe that these measures should be paired with responsible and sustainable IPP development.

Powering Tomorrow: We do not believe that relying on BC Hydro proposed projects such as Site C or the historic infrastructure projects is appropriate. IPP development can be critical to economic development within First Nations communities. The SOP, as currently drafted, is not sufficient to provide for economic opportunities.

Managing Resources: the current draft of the IRP, as stated above, does not meet the objectives of the Clean Energy Act or our vision of the future. We strongly disagree with BC Hydro's proposed management of resources.

Conclusion

We are seeking the BC Hydro's commitment to work collaboratively with First Nations including the First Nations Leadership Council to maximize our opportunities in the energy sector. Furthermore, we seek assurance that additional and adequate consultation will occur with First Nations leadership prior to approving the BC Hydro Integrated Resource Plan.

Signed on behalf of the *Tla-o-qhi-aht First Nations*:

Chief Moses Martin

cc.

Minister Rustad, Aboriginal Relations and Reconciliation
Minister Thompson, Forest Lands and Natural Resource Operations
Minister Bennett, Energy and Mines

TOQUAHT NATION

PO Box 759
Ucluelet, BC V0R 3A0
Phone: (250) 726-4230
Fax: (250) 726-4403

October 18, 2013

Charlie Weiler
Acting Manager, Legal and Regulatory
Integrated Resource Plan
BC Hydro, Aboriginal Relations
6911 Southpoint Drive, 10th Floor
Burnaby, BC V3N 4X8
Via email: 2013irp@bchydro.com

Re: BC Hydro DRAFT Integrated Resource Plan

Dear Mr. Weiler,

I would like to take this opportunity to make you aware of the Toquaht Nation's involvement in the Renewable Energy Sector and our concerns with the current DRAFT BC Hydro Integrated Resource Plan (IRP).

Toquaht has worked for several years on the Lucky Creek small hydro project. Lucky Creek is within our Traditional Territory and this project is one of the corner stones of our Five Year Economic Development Plan. The Lucky Creek project will include two generators, Lower Lucky and Upper Lucky, with a combined generating capacity of 12.5 MW. To date we have completed the pre-feasibility study, submitted Water License and Land Tenure applications to British Columbia, and are currently well underway with all tasks required to submit a "Water Power Development Plan" to the Province for review. Our hope is to meet with BC Hydro staff before the end of the current fiscal year to discuss preliminary interconnection design issues and, in the 2013/2014 fiscal year, engage with BC Hydro in negotiations for an Energy Purchase Agreement.

Reaching this stage in the Lucky Creek project has taken several years of work and an investment of over $1,000,000.00.

Our main village of Macoah is in a remote area on the north shore of Barkley Sound. As with many remote communities, the traditional opportunities in fishing and forestry have greatly declined over the past two decades. The Lucky Creek project offers the possibility

TOQUAHT NATION

to diversify our local economy and to mitigate the negative effects due to the changes in fishing and forestry.

You may know that the Toquaht Nation is one of five Maa-Nulth Nations that implemented a modern treaty with the governments of Canada and British Columbia on April 1, 2011. During treaty negotiations, the province of BC acknowledged our aspirations in the Renewable Energy Sector and, in fact, provided funding for this project through the First Nations Clean Energy Business Fund.

Any proposed changes to the BC Hydro Integrated Resource Plan that may delay or otherwise negatively impact the viability of the Lucky Creek project is a great concern to the Toquaht Nation. To have the goal posts moved when we are so close to the finish line is completely unacceptable.

I request an opportunity to meet with you as soon as possible to discuss the proposed changes to your IRP so that I can better understand how these changes may impact our project. I will be available to meet at your Burnaby office at your earliest convenience.

Respectfully,

Anne Mack

Chief Anne Mack
Tyee Ha'wilth
Toquaht Nation

CC via email:

Premier Clark
Minister Rustad, Aboriginal Relations and Reconciliation
Minister Thomson, Forest Lands and Natural Resource Operations
Minister Bennett, Energy and Mines
Sarah Robinson, Toquaht Nation Director of Operations
Rick Shafer, Toquaht Nation Economic Development Officer

Williams Lake Indian Band
2672 Indian Drive
Williams Lake, BC V2G 5K9

October 18, 2013

RE: BC Hydro's Integrated Resource Plan

Attention:

Charlie Weiler
Acting Manager, Legal and Regulatory,
BC Hydro Aboriginal Relations
6911 Southpoint Drive, 10th floor
Burnaby, BC, V3N 4X8
Ph:1-877-461-0161 ext 3
Fax:604-528-2822
Email:2013irp@bchydro.com

Dear Mr. Weiler:

Williams Lake Indian Band ("WLIB") received your letter dated August 29, 2013. This letter is requesting written comments from First Nations as it relates to the BC Hydro (BCH) Integrated Resource Plan (IRP). The bulk of the work on this plan was done in 2011 and 2012 and we see it is now a live document posted to the BCH website. Our understanding is that the IRP will be presented for final approval by on or about November 15, 2013.

WLIB representatives (including the undersigned) were present for a BCH IRP workshop in Kamloops and our impression was that the workshop was an attempt to satisfy the basic requirements of consultation through a "check box" engagement session. There was little in the way of meaningful discussion at this workshop, and issues of critical significance to First Nations were entirely ignored.

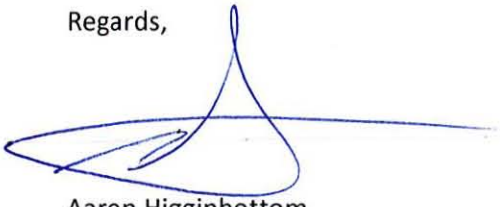
WLIB has been in discussions with the Aboriginal Affairs department of BCH over the past year in attempt to develop further reaching agreements that will address WLIB's concerns with respect to project impacts, consultation and accommodation and other issues which are of importance to our community, and many other First Nations. This has been a very trying exercise, but at least there has

been some opportunity for us to make it clear what our expectations are. **The IRP in no way addresses our concerns, and cannot be construed as a document which addresses the needs of First Nations. Separate processes must be followed, and specific commitments made, in order to address the needs of First Nations.**

WLIB would be more than happy to continue discussions with BCH in an attempt to develop a meaningful agreement that will meet our needs, and possibly form a template for agreements with other Northern Shuswap communities. We respectfully wait further feedback and will make ourselves available to further the development of an agreement that will meet both our organizations' needs.

If you have any questions or concerns please do not hesitate to contact us at the numbers below.

Regards,



Aaron Higginbottom
Natural Resources Manager
Williams Lake Indian Band
250.296.3507 ext. 113
Aaron.higginbottom@williamslakeband.ca