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March 24, 2016

**Premier Christy Clark
PO Box 9041 Stn Prov Govt
Victoria, BC
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Dear Premier Clark,

RE: Sierra Club BC Response to the Climate Leadership Team's October 2015 Recommendations to Government

Sierra Club BC is pleased to provide input to government as it considers the recommendations of the Climate Leadership Team.

In the few short months since the recommendations were made public, there have been two key developments, one positive, one decidedly negative.

First, in Paris in December, Canada joined 195 nations in the ambitious but essential commitment to keep global warming below 1.5 degrees Celsius.

Second, scientific evidence has shown that global warming trends are accelerating much faster than expected. Recent data from NASA showed February 2016's average global surface temperature was 1.35 degrees Celsius warmer than the baseline 1951-1980 average. This smashes the January 2016 record which was 1.15 degrees Celsius above the average. 2015 was the hottest year on record, with 2014 the next hottest. Fifteen of the sixteen hottest years ever recorded have occurred since 2000.

It is clear that our planet's current trajectory is a rapidly escalating climate emergency. It is equally clear that the recommendations of the Climate Leadership Team are woefully insufficient to the task at hand. They should be considered a minimum on top of which your government must act decisively to build. We need much more aggressive and effective measures.

In Sierra Club BC's view, a core problem with the recommendations is that they are handcuffed by your government's insistence that any Climate Leadership Plan "protect emissions-intensive, trade exposed sectors." Protecting emissions-intensive sectors is not climate leadership: it is a recipe for British Columbia to continue its devolution into climate laggard.

Continued long enough, it will turn us into climate pariahs.

In this context, your government's recent choice of Deputy Minister for Climate Leadership is deeply concerning, and raises serious questions about your government's commitment to real climate leadership.

Confronting climate change requires a holistic approach focusing on three main areas of action: stabilizing the climate, protecting nature and supporting economic transition to a post-carbon future. Effective climate action requires planning all of these areas simultaneously. Sierra Club BC encourages the B.C. government to do no less than the recommendations of the Climate Leadership Team—and in many cases to do more, as discussed below.

Stabilizing the Climate

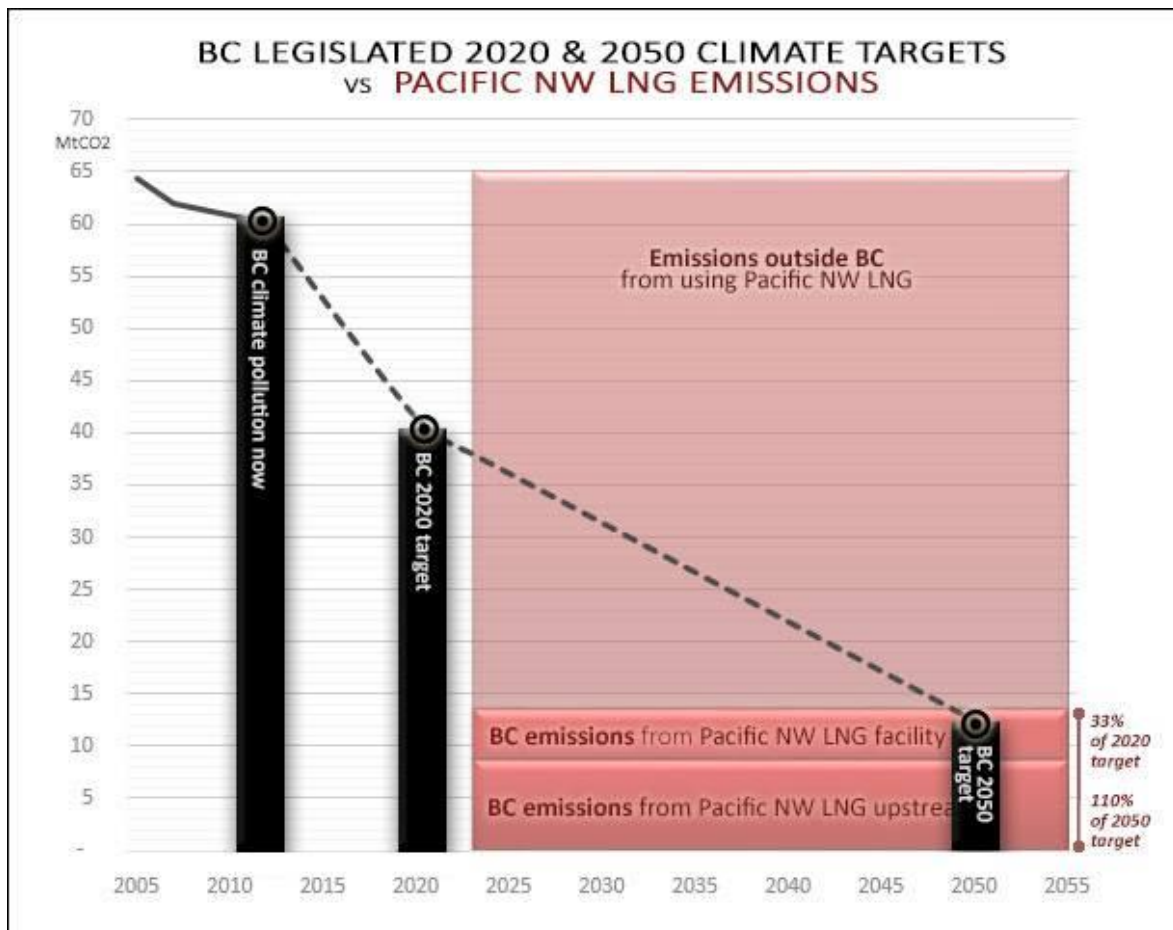
Sierra Club BC's June 15 and September 14 submissions to the Climate Leadership Team focused on six key areas to stabilize the climate:

- 1. Legislating emissions reduction targets.*
- 2. Increasing and expanding B.C.'s carbon tax.*
- 3. Subjecting fossil fuel exports to the carbon tax or an equivalent levy.*
- 4. Redirecting fossil fuel subsidies to the low carbon economy and supporting a transition strategy for workers.*
- 5. Establishing a 'climate test.'*
- 6. Designating permanent carbon sink reserves for 'unburnable carbon.'*

1. Emissions reduction targets

British Columbia cannot make any credible claim to climate leadership when its emissions are going up, which is the case today, while five other Canadian provinces are reducing theirs.

If we want to keep global warming below 1.5 to 2 degrees Celsius, we need to set more aggressive targets, not abandon existing ones. The recommendation to jettison the 2020 target—necessitated by the Province's commitment to LNG—is unacceptable and should be rejected. The rapid acceleration of global warming and associated impacts demands we redouble our efforts over the next four years in order to meet the 2020 target.



BC legislated Climate Targets compared to BC emissions potential from Pacific NW LNG proposal. SOURCES: Draft Environmental Assessment Report – Pacific NorthWest LNG list up to 8.7 MtCO₂/year from upstream and 4.9 MtCO₂ from facility; Canada National Inventory Report and BC Inventory Report used for historical BC GHG. BC legislated climate targets are 33% below 2007 in 2020 and 80% below in 2050. Global emissions from LNG based on 19.2 MtLNG at 2.7 tCO₂/tLNG for burn. Chart by Barry Saxifrage at VisualCarbon.org and NationalObserver.com. March 2016.

In addition, we recommend B.C. follow the European Union example and adopt a target of a 40 per cent emissions reduction by 2030 compared to 1990 (equivalent to approximately 50 per cent reduction compared to 2007).

2. Increase and expand B.C.'s carbon tax.

Continuing to delay increasing and expanding the carbon tax is unacceptable and makes achieving even weak targets much more difficult. Carbon tax increases should begin immediately, increasing by at least \$10/tonne CO₂-e every year.

British Columbia's carbon tax would be increasing to \$50/tonne CO₂-e this year if it had not been frozen at \$30/tonne CO₂-e in 2012. This is significantly less than many other jurisdictions (and much lower than the \$120/tonne CO₂-e that has been shown to represent the average *actual* social costs

of emitting a tonne of carbon in the European Union¹—with a range of \$15/tonne to \$250/tonne CO₂-e, depending on a nation’s wealth²).

Jurisdictions with the highest national direct carbon taxes are (in USD per tonne of CO₂-e):

- Sweden = \$168 (2014)
- Switzerland = \$68 (2014)
- Norway = up to \$69 (2014)
- Finland = approximately \$38.50 (2013)
- Denmark = \$31 (2014).³

With historically low oil prices, it is urgent to increase the carbon tax to address the risk of increasing emissions associated with new fossil fuel projects and increased consumption of fossil fuel products due to poor choices (e.g. emissions from LNG projects exempt or not sufficiently taxed, or low oil price making cars with poor gas mileage look more favourable).

We also urge that industries not already covered by the carbon tax should be included immediately, and not be excluded until 2021 as recommended by the Climate Leadership Team. Not only would this make the carbon tax more equitable, it would also provide an incentive for these industries to reduce emissions immediately, while increasing the competitiveness of renewable, climate-friendly alternatives.

While lower and middle income British Columbians should be provided relief from the impact of carbon tax increases, we believe incremental revenue increases to government should be used strategically to support specific low-carbon solutions – such as public transit.

3. Subjecting fossil fuel exports to the carbon tax or an equivalent levy.

Downstream emissions remain the elephant in the room when it comes to putting a price on carbon. It is simply not acceptable to export fossil fuels that we know are going to contribute to emissions in other jurisdictions, especially when the importing jurisdiction does not put a price on carbon, or puts on a lower price.

¹ \$100/tonne CO₂-e in 2005 dollars, which is \$110/tonne in 2010 dollars and expected to be \$2/tonne more per year thereafter: C Hope, “How High Should Climate Change Taxes Be?” University of Cambridge Judge Business School Working Paper Series (2011) at 7, 10, online: <https://www.jbs.cam.ac.uk/fileadmin/user_upload/research/workingpapers/wp1109.pdf> [Hope, “Climate Change Taxes”]. Note that the author suggests that the tax be *higher* than \$120/tonne CO₂-e for richer nations, and argues that it should also be higher in order to reduce other distortionary taxes, like income.

²Hope, “Climate Change Taxes,” at 11. The author argues that a carbon tax should start at \$15/tonne for the poorest nations, and be \$250/tonne for the United States.

³ World Bank, Putting a Price on Carbon with a Tax Background Note (no date, accessed 6 March 2016) at 2, online: <http://www.worldbank.org/content/dam/Worldbank/document/SDN/background-note_carbon-tax.pdf>.

We recommended that fossil fuels originating in B.C., such as coal and fracked gas, should be subject to the carbon tax when they are exported. Appropriate provisions should be put in place so that if the importing jurisdiction in which they are combusted applies a similar tax, it can be reduced commensurately here in B.C. We urge the Province to adopt this policy.

4. Redirecting fossil fuel subsidies to the low carbon economy and supporting a transition strategy for workers.

A report by the Blue-Green Alliance shows that by redirecting fossil fuel subsidies to clean, renewable energy, six to eight times more jobs could be created. According to British Columbia's Auditor General, the Province provided approximately \$1 billion in fossil fuel subsidies in 2013/2014.

We recommend quickly developing and implementing a plan that phases out fossil fuel subsidies and redirects them to support a transition strategy for workers to clean energy jobs, which in turn would help to reduce emissions and build a healthy and sustainable economy.

This approach is not reflected in the Team's recommendations. We urge the government to adopt this as a policy.

5. Establishing a 'climate test.'

Along with appropriate carbon pricing, a climate test is perhaps the most important element of an effective emissions reduction strategy. We will not repeat the reasons here, except by referring to our September 14 submission of the report [*Blind Spot: The Failure to Consider Climate in British Columbia's Environmental Assessments*](#). A strong linkage between legislated targets and the environmental assessment process is essential, and why the idea for a climate test, which has been promoted by President Obama and is currently under consideration by the federal government, is one whose time has come. It is essential that the climate test consider both upstream and downstream carbon emissions.

6. Designating permanent carbon sink reserves for 'unburnable carbon.'

The science is clear that the vast majority of fossil fuels must stay in the ground. We urge the government to consider this as an important policy tool to reduce emissions.

The Province's dangerous commitment to LNG

LNG development does not belong in any serious plan to address B.C.'s contribution to climate change. Though it is included in the Climate Leadership Team recommendations as a “cornerstone objective,” it is *directly contradictory* to the other three objectives. Development of LNG will greatly impede the province's ability to meet its legislatively mandated reduction goals,⁴ hydraulic fracturing (“fracking”) disproportionately impacts vulnerable populations,⁵ there is growing scientific consensus that fracking causes earthquakes,⁶ and it will tarnish any national or international reputation B.C. has for its climate policies. The science is increasingly confirming that, over a 30 year timeframe, fracked gas is as bad as coal when it comes to lifecycle emissions. This is mostly due to methane leakage at various stages of extraction, transportation and processing.

Provision for helping “emissions-intensive, trade-exposed” industries has no place in a climate plan and is generally at odds with the global community's efforts to cut its dependence on fossil fuels.

In addition, the Climate Leadership Team's recommendations are predicated upon the provision of electricity to power LNG plants. The enormous (and growing) cost of the Site C dam will either mean skyrocketing industrial hydro rates (which will necessitate using fracked gas to provide power to the plants and vastly increase domestic emissions) or massively subsidized industrial power rates, with residential customers bearing the entire burden of increasing rates. Increasing evidence also points to the possibility that Site C power will be used to power gas extraction, which again would result in gas being used to power plants.

Most recently, the Province has floated the possibility that Site C power could be sold to Alberta to help our neighbour wean itself from coal-fired generating facilities. This may be a noble goal, but Alberta has made it clear that it will only consider such an option if it is guaranteed a pipeline to the west coast. In climate terms, such a pact would simply shift emissions from one place to another, making it unacceptable.

⁴ For example, the proposed Pacific Northwest LNG facility could emit 10.7 million tonnes of GHG annually by 2030: Matt Horne, *Pacific Northwest LNG Implications: Analysis of environmental impacts and the project development agreement* (10 July 2015) at 2, online: Pembina <<http://www.pembina.org/reports/pacific-northwest-lng-implications.pdf>>.

This would amount to almost a quarter of BC's 2020 target (43 Mt), and almost the entirety of its 2050 target (just under 13 Mt).

⁵ Anna J Willow, “The new politics of environmental degradation: un/expected landscapes of disempowerment and vulnerability” (2014) 21 *Journal of Political Ecology* 237.

⁶ Amir Mansour Farahbod, *et al*, “Investigation of regional seismicity before and after hydraulic fracturing in the Horn River Basin, northeast British Columbia” (2015) 52(2) *Canadian Journal of Earth Sciences* 112. See also: Mark D. Petersen, *et al*, “Incorporating Induced Seismicity in the 2014 United States National Seismic Hazard Model—Results of 2014 Workshop and Sensitivity Studies” (2015) U.S. Geological Survey online: <<http://pubs.usgs.gov/of/2015/1070/pdf/ofr2015-1070.pdf>>; G Atkinson, *et al*, “Ground Motions from Three Recent Earthquakes in Western Alberta and Northeastern British Columbia and Their Implications for Induced-Seismicity Hazard in Eastern Regions” (2015) 86(3) *Seismological Research Letters* 1022.

LNG is not clean or green and has no place in a meaningful climate action strategy.

Defending Nature

Reducing emissions to stabilize the climate is only part of a comprehensive approach to climate leadership. British Columbia must also defend nature as climate impacts increase and undertake a rapid shift to a post-carbon economy. The recommendations of the Climate Leadership Team failed to adequately consider this important action. A real climate plan must be comprehensive in its scope and consider a diverse range of tactics for tackling climate change.

1. Preserving B.C. Ecosystems in Face of Climate Change.

The most credible science says that “nature needs half” in order to maintain biodiversity and the natural systems upon which human beings, and our communities and economy, depend. Without immediate action, B.C.’s globally significant biodiversity and the carbon sink function of natural ecosystems are vulnerable to rapid deterioration, especially as a result of climate change. Conservation biologists have concluded that about half of the land base should be protected or managed primarily to protect ecological values, in order to maintain diverse ecosystems, and the environmental services on which human and community health depend.

By managing 50 per cent of B.C.’s landscape in a manner that maintains ecological integrity and connectivity, species and ecosystems will have a better chance to adapt to a changing climate, while protecting clean water, carbon sinks and maintaining the soil base.

B.C. has already made significant progress toward this goal. Protected areas comprise nearly 15 per cent of the land base and another approximately 16 per cent has development restrictions in place through designations such as the Agricultural Land Reserve and Wildlife Management Areas.

We recommend that B.C.’s climate action plan include a conservation plan for the province to increase protection of land and freshwater to 50 per cent by 2020; with the key goals to maintain ecological values, habitat and maximize carbon storage in our forests, peatlands, eel grasses and salt marshes.

2. Implement a forest action plan to restore forest health and create sustainable forestry jobs

The Climate Leadership team recommendation to update current forest and agriculture policy, regulation and protected areas strategies to account for climate change impacts is a good start but is only a fraction of the picture.

The management of B.C.’s forests and land use should be a key consideration in our climate action plan but the Climate Leadership team recommendation put too much emphasis on promoting presumably climate friendly wood products and too little emphasis on increasing protection of carbon-rich endangered old-growth forests and ending destructive practices like slash burning and leaving large amount of wood waste behind.

The fact that the province's forests have been a source of very high GHG emissions for over 10 years instead of their past carbon sink function remains underreported (emissions from B.C.'s forests are not counted as official emissions) and analysis and policy to restore their carbon sink function is superficial, consistent with the overall lack of government monitoring and stewardship of our forests. For more information on emissions from B.C.'s forests read Sierra Club BC's report [*B.C. Forest Wake-Up Call: Heavy Carbon Losses Hit 10 Year Mark*](#)

The core elements of a forest action plan should be to restore government capacity for forest stewardship, strengthen legislation to protect biodiversity, increase forest conservation, improve forest management and adjust the allowable annual cut to a sustainable level, combined with steps towards creating more jobs per cubic metre in the forest sector (e.g. ending raw log exports).

We recommend that the province develop a forest action plan with the following core elements:

- Increase conservation of carbon-rich old-growth rainforest, in particular by conserving and restoring rare, endangered rainforest ecosystems on Vancouver Island and the South coast.
- Improve forest management to reduce carbon loss and enhance carbon sequestration with longer harvesting cycles, selective logging, and avoidance of slash burning and wood waste.
- Restore government capacity to ensure forest stewardship, monitoring and enforcement, as well as capacity to map forests, update inventories and undertake research.
- Adjust the allowable annual cut to a sustainable level reflecting past overharvesting and climate impacts like the mountain pine beetle outbreak.
- Reduce raw log exports and support forestry operations and value added businesses that create a higher number of jobs per cubic metre.
- Provide transition assistance to forestry dependent communities hit by climate change impacts like the mountain pine beetle to restore healthy forest landscapes and forestry opportunities for the future.

3. Conserving Agricultural Land

The Climate Leadership Team recommendations include reviewing and updating best practices for the agriculture sector and updating current agriculture policy and regulation. These recommendations are a start, but remain vague on specific action.

As temperatures rise and precipitation patterns change, agriculture will be increasingly affected, both in terms of our ability to import affordable produce and to grow dependable food supplies domestically.

In particular, the highly productive and fertile Peace River Valley, should already be viewed as a strategic asset from a food security perspective. Climate adaptation policies must focus on basic human needs for food, water and shelter first, yet the Site C development will submerge land capable of providing fresh fruit and vegetables to feed one million people.

A climate adaptation strategy must preserve all potential agricultural land to maximize our self-sufficiency in the face of drought and food shortages. Food-producing lands must be recognized for what they are: key to human survival and well-being in an era of climate change, and a strategic asset of the highest public interest for the province and the nation.

In light of significant evidence that less costly alternatives to produce energy without increasing emissions are available, we strongly recommend cancelling the Site C megadam and protecting the land in the Peace River Valley for food production.

Conclusion

Confronting climate change requires decisive action and a sharp change in direction. We need to avoid energy projects which will make climate change worse, including LNG and Site C, and carefully chart our course as a province.

Confronting climate change requires a holistic approach focusing on three main areas of action: stabilizing the climate, protecting nature and supporting economic transition to a post-carbon future. Effective climate action requires planning all of these areas simultaneously.

We strongly encourage this government to be bold in tackling the challenge of climate change. It is a daunting task. But done correctly, this will be the moment that future generation will look back and remember as the time we led the way by taking committed and strategic steps towards a post-carbon future.

Sincerely,

A handwritten signature in black ink, appearing to read "Bob Peart". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Bob Peart
Executive Director
Sierra Club BC