

## Restall, Analise MNGD:EX

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**From:** Trachsel, Daymon MEM:EX  
**Sent:** Wednesday, March 2, 2016 2:39 PM  
**To:** Robb, Peter L. MEM:EX; MacLaren, Les MEM:EX; Piccinino, Ines MNGD:EX; Beltrano, Linda MNGD:EX; Hansen, Brian MNGD:EX; Vasey, Jeff OHCS:EX  
**Cc:** McNeil, Kevin MEM:EX; Musgrove, Kate MEM:EX; Marshall, Fraser MEM:EX; Petrini, Teresa MNGD:EX; Restall, Analise MNGD:EX; Nagle, Kim OHCS:EX  
**Subject:** ENV Estimates Summary  
**Attachments:** MINISTRY OF ENVIRONMENT.docx

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

Good afternoon.

To assist with the prep for our estimates, attached is a summary of Environment's estimates which finished yesterday.

I've highlighted all the areas of interest to our two ministries. There are lots of acronyms, so I hope I haven't missed anything!

Peter, a BN has already been added to MMRD's estimates list on the wildlife corridor ( first highlight on page 5).

Regards,



**Daymon Trachsel** | Director, Corporate Initiatives | Phone: 250.953.3730 | Mobile: 250.589.0042  
Corporate Initiatives Branch | Ministry of Energy and Mines | Ministry of Natural Gas Development

## **SUMMARY OF MINISTRY OF ENVIRONMENT'S ESTIMATES 2016/17**

### **March 1<sup>st</sup>: final day of ENV estimates debate:**

#### Outstanding questions for the Minister:

Gary Holman – Saanich North and the Islands

- **(EPD)** Re: Shawnigan Lake – does SL have any particular designation that recognizes it as drinking water for 12 000 residents?
  - *Minister responded that staff are looking into whether it has official designations under FLNRO. Regardless, MOE treats it with the same care whatever the designation.*

#### Requests for follow-up information:

George Heyman - Vancouver Fairview

- **(EPD)** Re: Spallumcheen drinking water advisory
  - Can you speak to the other MOE water advisories?
  - *Minister noted that she would follow up and provide what is in the current system for FOI requests with respect to other water advisories in the area. She also noted that MOH usually signals for MOE to become engaged and that the question may better be pursued with MOH.*

Doug Routley – Nanaimo, North Cowichan

- **(EPD)** Re: Coal mine – foreshore filling near Nanaimo
  - Environmental implications of dredging the bay. *Minister noted that this is primarily work between FLNRO, and Fisheries and Oceans. MOE will follow up with FLNRO to see where they are at in the process.*
  - DFO has been notified to review the application, they indicate they have delegated that authority to MOE. *MOE will look into DFO delegation and report back.*

Vicki Huntington – Delta South

- **(ESSPD)** Request for briefing on cumulative effects.

Norm MacDonald Columbia River – Revelstoke

- **(ESSPD)** Re: Invasive mussels: *Could the Minister highlight what they've done and future plans?*
- **(EAO)** Re: Jumbo Glacier debris removal: *Is Minister confident they have the money to remove that debris, and when will they be required to do that work?*
- **(EPD)** Re: Radium Resort: *Future actions?*

Gary Holman – Saanich North and islands

- (EPD) Re: MMBC: Funding to rural depots – MMBC. *Would like the Minister to convene a meeting with MMBC, CRD and MOE to discuss how that incentive was calculated and how it was priced.*
- (EPD) Re: Sewage treatment on Saltspring: *GH will convene a separate meeting on this and would like to sit in on Saltspring meeting.*
- (EAO) Re: SteelHead LNG for Saanich Inlet: *What is the EA process with multiple jurisdictions involved?*

### **Summary: Tuesday Mar 1 2016**

- Mount Polley
  - Ministry's role in short and long term management solutions.
- Species at Risk
  - Federal Recovery Strategy for Boreal Caribou – inconsistencies between federal approach and provincial implementation plan. *Minister spoke to working with FLNRO on boreal caribou recovery, looking at using best scientific federal and provincial tools.*
- Parks
  - Fee increases.
  - Proposed National Park in South Okanagan.
- MMBC
  - Number of producers under the plan.
  - Newspapers.
  - MMBC as a monopoly protected by MOE.
- Spallumcheen drinking water advisory and FOI concerns
  - How long have there been concerns about contamination of which the Ministry has been aware?
  - Why is it necessary to wait for a ruling from the commissioner instead of releasing information proactively?
- WSA
  - Can water rates fund watershed boards/governance in B.C.?
- South Island Aggregate
  - Why gov't would consider a development proposal in an area where drinking water could be threatened?
  - Role of statutory decision maker versus the Minister in regard to permits.
  - (Bill Routley – Cowichan Valley) What are the total costs of Ministry efforts to defend this waste discharge permit? *Minister responded that the question would have to be put to the Ministry of Justice.*

- Why is it ok for the Ministry to not have a neutral position during the appeal board process? Circumstances under which the Minister believes it would be possible to cancel this permit?
- Mine site clean up
  - Banks Island Yellow Giant Mine: when will it be cleaned up?
  - Site Namu on central coast: when will it be cleaned up?
  - Lessons learned from Simushir incident.
- LNG
  - (Vicki Huntington – Delta South) West Pac Tillbury expansion: subject to future environmental assessment?
  - West Pac Marine jetty: looking at all development happening on the Fraser river, is there any concern about the cumulative impact of all of these projects?
- Invasive mussels
- Jumbo Glacier debris removal
- Radium Resort clean up
- Raven Coal Mine: closure of EA proposal

Outstanding Questions for the Minister: Monday, Feb. 29:

Katrine Conroy - Kootenay West

· **(Parks/ESSPD)** Re: The Western Toad – issue of protecting the Western Toad in village of Nakusp and logging responsibly.

- There is crown land outside of the Nakusp area that was reserved for Park status.

**What is the status of that land – is it going to be made into a Park? And could it be something that would help in this situation?**

- *Minister responded that the bulk of issues surrounding this item rest with FLNRO. Minister will look into status of the land and future plans for that area.*

· **(Parks/ESSPD)** Re: The Western Toad – issue of protecting the Western Toad in village of Nakusp and logging responsibly.

- **What portion of Parks budget is typically used for research? How much has the Ministry done in efforts related to the toad?**

- *Minister responded that there is research staff who work with ENV and FLNRO - she did not know with certainty if there was specific research done on the Western Toad but will endeavor to find out.*

Requests for follow-up information:

George Heyman: Vancouver Fairview

- (CAS) The Minister referenced four reports done in preparation to produce the benchmark set out in GGIRCA. She promised to send the links to the critic, George Heyman. She listed two of the four reports: LNG Benchmarking and Production in B.C..

### Summary: Monday Feb 29 2016 2:30 – 6:30

#### Conservation Officer Service

- Staffing numbers: is the number of COs adequate?

#### Climate

- o How will the gov't respond to the Climate Leadership Team's recommendations?
- o Carbon tax: will the gov't consider increasing?
- o Plans for legislated 2020 targets, plans for 2030 and 2050 targets.
- o LNG: upstream emissions in GHG calculations, how does LNG development impact B.C.'s progress towards emission reductions?
- o (George Heyman: Vancouver Fairview): Transit, priority of Massey Tunnel - how does Minister see implementing critical recommendations from Climate Leadership Team regarding transit reductions? *Minister responded that work to reduce congestion and idling aids in emission reductions. TRAN may want to comment further on Massey Tunnel plans.*
- o (Spencer Chandra Herbert, Vancouver West): Re: Pacific Coast Collaborative Agreement (2013), has the B.C. gov't met the standard set for 10% of new vehicle purchases be electric, and what private sectors have met this goal? *Minister responded that MOE provides policy support, MEM is lead and tracks success towards goals.*
- (George Heyman: Vancouver Fairview): Building emissions and retrofit strategies. *Minister responded that the recommendations from the Climate Leadership Team are being carefully considered, and that the Live Smart programs falls under MEM.*
- Dike and flood management
  - o (Vicki Huntington, Delta South): How to afford dike increases, how the Province will work with municipalities. What is the long term plan and how is it unfolding? *Minister responded that dike and flood mitigation largely rests with FLNRO and EMBC. MOE plays supportive and facilitative role.*
- Species at Risk
  - o (Katrine Conroy - Kootenay West) The Western Toad – issue of protecting the Western Toad in village of Nakusp and logging responsibly.
  - o Plans for provincial endangered species legislation.

**Summary Thursday, February 25, 2016:**

**George Heyman: Vancouver Fairview**

- Delivery of Mandate Letter: plans to fulfill our mandate and associated costs?
  - Working with EMBC: Questions on public consultation with local government regarding incidents on South and North Coast and if there is a planned period of public comment.
  - Working with FLNRO on snow packs and retreating glaciers: what public consultation, if any, are planned? Why is there no mandate to examine the impact on water supplies themselves (for drinking, agriculture purposes, hydroelectric production)? If it is not in the mandate letter, is it in the Ministry work plan? *Minister spoke to how work with FLNRO goes much further than what is in the letter, and referenced FLNRO's climate action plans related to adaptation.*
  - Working with FLNRO on wildlife access corridor: Any public consultation with environmental groups taking place or planned, and whether this will have any impact on demands or considerations for a park or wildlife management area in the Flathead? *Minister responded that MEM is lead ministry and that we are supporting them.*
- Responsibility for green economic measures
  - Rests with MOE or is it a cross-ministry initiative? If the later, is it coordinated through MOE? *Minister spoke to the facilitative role of MOE, and how it supports FLNRO, MEM and other ministries in their respective sustainability plans. Mentioned that clean technology primarily rests with MTICs, with policy support from MOE.*
  - Is there a cabinet committee or body - or is it a role for CAS or the Roundtable on Environment & the Economy - to do overall coordination and policy planning, or is it up to every ministry? *Minister spoke to the Climate Leadership Plan: works to have ministries be responsible for their sectors. MOE supports them in their own planning and driving.*
- Fee increases – what fees have been increased in the Ministry?
- On-going reviews and reviews in the past six months: are they public or will they be?
  - WSA: clarity on administration costs. Is the review of water pricing still ongoing? *Minister spoke to staffing additions in MOE and FLNRO.*
  - WSA: calculations of fees; costs related to maintaining a healthy water supply: why is Government not including those costs in fees for the public resource?
- Environmental Assessment
  - Equivalency agreement with the National Energy Board: future equivalency agreements with the NEB?
  - Consultation with First Nations: Crown vs. EAO.
- Environmental Assessment: upstream impacts of natural gas and GHGs

- Is BC considering including upstream impacts of GHG in projects and assessments? *Critic will be asking more EA and climate related questions on Monday.*
- Does Minister expect greater calls on EAO for resources that would require more staff/budget uplift? *Minister spoke to the slight uplift EAO has received every year and how it will continue to work with MEM, MNGD and internally with CAS as appropriate on projects.*
- Use, and guidelines for use of, professional contractors by EAO.
- Conservation Officer Service
  - Staffing numbers: appears flat lined. With increased calls and increased administrative demands, is the number of COs adequate? *Minister spoke to changes in the Service over the years and working with other enforcement bodies such as NR Officers.*

## Pukteris, Jazmin MNGD:EX

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**From:** Hansen, Brian MNGD:EX  
**Sent:** Tuesday, July 26, 2016 9:51 AM  
**To:** Restall, Analise MNGD:EX  
**Subject:** FW: Climate plan public engagement  
**Attachments:** NR\_CLP\_DiscussionPaper\_July16\_830am.docx; ATT00001.htm;  
KM\_CLPDiscussionPaper\_July6\_4pm.docx; ATT00002.htm;  
QA\_CLPDiscussionPaper\_July15\_1230pm.docx; ATT00003.htm; T15-0086  
\_ClimateLeadershipPlan\_Final.pdf; ATT00004.htm

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**From:** Hansen, Brian MNGD:EX  
**Sent:** Thursday, July 16, 2015 11:10 AM  
**To:** Manahan, Suzanne MNGD:EX  
**Cc:** Calder, Kursti D MNGD:EX  
**Subject:** Fwd: Climate plan public engagement

FYI

Sent from my iPhone

Begin forwarded message:

**From:** "Woolley, Paul GCPE:EX" <[Paul.Woolley@gov.bc.ca](mailto:Paul.Woolley@gov.bc.ca)>  
**To:** "Piccinino, Ines MNGD:EX" <[Ines.Piccinino@gov.bc.ca](mailto:Ines.Piccinino@gov.bc.ca)>, "Hansen, Brian MNGD:EX" <[Brian.Hansen@gov.bc.ca](mailto:Brian.Hansen@gov.bc.ca)>, "Mihlar, Fazil MNGD:EX" <[Fazil.Mihlar@gov.bc.ca](mailto:Fazil.Mihlar@gov.bc.ca)>  
**Cc:** "Carr, Steve MNGD:EX" <[Steve.Carr@gov.bc.ca](mailto:Steve.Carr@gov.bc.ca)>  
**Subject:** FW: Climate plan public engagement

FYI

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**From:** Crebo, David GCPE:EX  
**Sent:** Thursday, July 16, 2015 9:46 AM  
**To:** GCPE Comm Directors  
**Cc:** GCPE Comm Managers  
**Subject:** Climate plan public engagement

FYI – Tomorrow we're launching a one-month public engagement towards developing a new climate plan. Attached are comm materials, as well as the discussion paper that folks will be asked to respond to via a dedicated website survey.

This is the first of two, planned public engagement periods, and is a higher level look at attitudes/values etc. re: transportation, communities, industrial activity...so several ministries may have an interest. It'll be supported with a fairly robust traditional and social media campaign.

The next engagement in Dec. will drill down a bit more and have more tangible climate-friendly actions for people to weigh in on. The final plan will be released in spring 2016.

Thx,  
Dave

Dave Crebo  
Communications Director  
Ministry of Environment  
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## NEWS RELEASE

For Immediate Release  
[release number]  
July 17, 2015

Ministry of Environment

### **Climate discussion paper open for public review**

VICTORIA – British Columbians are invited to review and comment on a newly released discussion paper that considers the ideas, values and priorities they want to see in a new climate action plan.

British Columbia is in the process of developing a new Climate Leadership Plan to ensure the Province remains a climate leader and meets its 2020 and 2050 emissions reduction targets.

In May 2015, government appointed a Climate Leadership Team consisting of leaders from the business, academic and environmental communities, as well as First Nations and local governments to review options for economic development and greenhouse gas emissions reductions, and also make recommendations for the new Climate Leadership Plan.

The public will have two opportunities over the next six months to participate in shaping new climate policies in B.C. During the first opportunity that runs until Aug. 17, 2015, people can comment on the discussion paper.

After reviewing discussion paper submissions and the Climate Leadership Team's recommendations, government will release a draft Climate Leadership Plan in December 2015. British Columbians will have a chance to review the draft plan and will be asked to provide comment on specific policies and actions regarding climate change.

The final Climate Leadership Plan will be released by government in March 2016.

#### **Quotes:**

##### **Mary Polak, Minister of Environment –**

"B.C.'s new Climate Leadership Plan will influence how British Columbians will work, travel and live for decades to come. That's why it's important we hear from you now, before government makes decisions on next steps."

##### **Jordan Sturdy, deputy chair of the Climate Leadership Team, Parliamentary Secretary to the Minister of Transportation and Infrastructure, and MLA for West Vancouver-Sea to Sky –**

"Building on our global climate leadership, B.C. is developing a new Climate Leadership Plan to move our climate agenda forward. As we refresh and revitalize B.C.'s climate plan, our focus remains firmly on our commitment to reach our legislated emissions reduction targets for 2020 and 2050."

##### **Matt Horne, Associate B.C. Director, Pembina Institute, and member of the Climate Leadership Team –**

"I encourage all British Columbians to share the solutions they'd like to see in the Climate Leadership Plan. We need a successful Plan to help fight climate change and ensure a thriving economy."

**Learn More:**

To take the survey, review and/or comment on the Climate Leadership Plan discussion paper, visit: [www.engage.gov.bc.ca/climateleadership](http://www.engage.gov.bc.ca/climateleadership)

Media contact:  
Media Relations  
Ministry of Environment  
250 953-3834

### **Climate Leadership Plan: Discussion Paper – Key Messages**

- Building on our global climate leadership, B.C. is developing a new Climate Leadership Plan to move our climate agenda forward.
- As we refresh and revitalize B.C.'s climate plan, our focus remains firmly on our commitment to reach our legislated emission reduction targets for 2020 and 2050.
- Our new plan is being assembled with the advice of the Climate Leadership Team, and through public consultation.
- British Columbians will have two opportunities to participate in shaping new climate policies.
- During this first opportunity that runs until August 17, we are asking people to comment on a discussion paper that considers individuals' values and priorities.
- These responses will inform the Climate Leadership team's recommendations, and help shape B.C.'s draft Climate Leadership Plan, which will be released for public comment in December 2015.
- The final Climate Leadership Plan will be released spring 2016.
- Read the discussion paper and take the survey at [www.engage.gov.bc.ca/climateleadership](http://www.engage.gov.bc.ca/climateleadership)
- The Climate Leadership Plan will influence how we work, travel and live for decades to come. That's why it's important to hear from as many people as possible before government makes decisions on what policies and programs to move ahead with.
- We look forward to hearing from you.

### **Climate Leadership Team – Key Messages**

- B.C.'s Climate Leadership Team, made up of leaders from the business, academic and environmental communities, as well as First Nations and local governments, will make an important contribution in developing the new plan.
- The team will review options for economic development and greenhouse gas emissions reduction and also make recommendations for the new Climate Leadership Plan by the end of October.
- Government will consider the Climate Leadership Team's advice in developing the new Climate Leadership Plan.
- We look forward to reviewing the team's recommendations on how to reduce greenhouse gas emissions in key sectors like the industrial sector, transportation and built environment.

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## QUESTIONS AND ANSWERS

Climate Leadership Plan: Discussion Paper  
Ministry of Environment  
July 2015

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### **1. Why is government consulting with the public/stakeholders?**

- We want to know the public's priorities regarding this next phase of climate action.
- Their input is essential as the Climate Leadership Plan will help shape how we live, travel, and work for decades to come.
- We're taking the next step in climate leadership, by engaging with British Columbians on new climate actions that will drive down emissions while supporting a growing economy.
- We want to ensure a wide range of views are considered in developing a new climate action plan we all can be proud of.

### **2. How will this discussion paper move the climate action plan forward?**

- In the paper, we've outlined high-level approaches to meeting our reduction targets within four areas of action – how we live, work and travel, and how we consider the cost of climate change to society. Now we want to hear from British Columbians.
- Receiving public input will help us develop a new Climate Leadership Plan, which will move our province closer to our long-term climate goals.
- This phase of public consultation is the first step in our process to developing the Climate Leadership Plan.

### **3. What are the next steps?**

- Once the public comment period has closed August 17, government will review and publicly summarize all survey and additional feedback received.
- The Climate Leadership Team will continue their work and provide recommendations to government by the end of October.
- Government will release a draft Climate Leadership Plan for public comment in December before the United Nations climate change conference in Paris in December.
- The Climate Leadership Plan will be finalized in the spring of 2016.

### **4. Why are you asking for public input now – seven years after the last public consultation around climate action?**

- This is the right time to engage with the public and stakeholder to lay out the next steps in meeting our legislated climate targets.
- The 2008 Climate Action Team report provided valuable input into the setting of B.C.'s interim climate change targets, and we have moved ahead on many of the policy proposals in that report.

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## QUESTIONS AND ANSWERS

- For example, we achieved the 2012 interim target of a reduction of GHG emissions of 6% below 2007 levels, even as the economy grew at the same rate as the rest of Canada.
- We want to focus on the pathways to achieving the long-term transformation needed to meet the 2050 target, while supporting a growing economy.
- We want to stimulate a real debate among British Columbians about our future direction on climate change, and the best way for us to come together as a province to define a low-carbon future.

**5. What has B.C. done in the past seven years in terms of climate action?**

- Since the introduction of our Climate Action Plan in 2008, B.C. has been recognized as a world leader in the fight against climate change.
- B.C. was the first jurisdiction in North America to introduce a broad-based, revenue-neutral carbon tax and to have a carbon-neutral public sector.
- Other actions focused on specific sectors, such as low carbon fuel standard, energy efficiency requirements for buildings, and clean energy incentives.
- B.C. has shown we can reduce GHG emissions while continuing to grow the economy.
- In June 2014, we announced that B.C. had reached its first interim GHG emissions reduction target of 6% below 2007 levels by 2012.

**6. With the Climate Leadership Team in place, why is government consulting with the public? Wasn't the team created to provide recommendations to government for the Climate Leadership Plan?**

- B.C.'s Climate Leadership Team, made up of leaders from the business, academic and environmental communities, as well as First Nations and local governments, is making important contributions in developing the new plan.
- But it is also important to hear from citizens before we make decisions that will influence how British Columbians work, travel and live for decades to come.
- The feedback we receive on the discussion paper from British Columbians will help inform the Climate Leadership Team.
- With this public feedback, the team will review options for economic development and greenhouse gas emissions reduction and also make recommendations for B.C.'s Climate Leadership Plan.

**7. Was the Climate Leadership Team consulted on the development of the discussion paper?**

- Yes, the team provided feedback on the paper.

# **FOR INTERNAL USE ONLY**

## **QUESTIONS AND ANSWERS**

- 8. Will the draft plan include input from the Climate Leadership Team? The government has said the team's work will conclude in November. Will that give government enough time to review and incorporate the team's recommendations? How will government incorporate suggestions from the public and then the Climate Leadership Team members?**
- The feedback we receive on the discussion paper from British Columbians will help inform the Climate Leadership Team, who will ultimately provide recommendations for B.C.'s Climate Leadership Plan.
- 9. What is the purpose of the Climate Leadership Team? What are they responsible for?**
- The Climate Leadership Team will provide advice and recommendations to government as we develop the Climate Leadership Plan.
  - The team is considering a broad range of actions across industrial, transportation and buildings sectors. These could be updated actions to the current Climate Action Plan, as well as new programs and policies to achieve our GHG reduction targets, while considering other government's economic and resource objectives
- 10. Why are you 'consulting' the public in the middle of summer? Does this not make a farce of the public engagement idea? And then you plan to 'consult' again in December when people are focused on Christmas. Are you not just trying to ram this through without the public noticing?**
- Government absolutely takes seriously the views of British Columbians on climate action.
  - We are obligated to meet other timelines that we cannot control, which results in the engagement periods being what they are.
  - We want to have a draft plan in place for the Paris COP in December. To meet that timeline we need to hear from British Columbians now, so we can ensure their views are included in the final recommendations that the Climate Leadership Team will provide us.
  - Our plan is to be very prominent in both traditional and social media over the entire engagement period, encouraging British Columbians to comment on the Discussion Paper.
  - Later this year we again want to hear from British Columbians on the draft plan, before we enter the 2016 budget cycle. The budget comes out in February, and if climate action items are included, then we want to ensure British Columbians have had a chance to contribute their thoughts and ideas.

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## QUESTIONS AND ANSWERS

### **11. What are government's short and long term climate action goals?**

- We remain committed to achieving our legislated GHG emissions reduction targets of 33% below 2007 levels by 2020, and 80% below by 2050.
- We have been clear from the outset that more actions would be needed to meet our targets and that is why we are moving forward on our climate agenda with the release of this discussion paper.

### **12. How long do people have to provide comments?**

- The first public consultation period runs from July 17-August 17 with the online release of the Climate Leadership Plan discussion paper.
- In an online survey, participants will be asked to review questions in the document relating to how we live, travel, work and what we value. While the actual survey has a 30 day window, if needed, we could extend the time for more detailed submissions to the end of August.

### **13. How can people submit their comments?**

- The discussion paper and online survey can be found on the B.C. government's Climate Action Leadership site – [www.engage.gov.bc.ca/climateleadership](http://www.engage.gov.bc.ca/climateleadership)
- Those who wish to submit additional information can email [climateleadershipplan@gov.bc.ca](mailto:climateleadershipplan@gov.bc.ca)

### **14. Will submissions be confidential?**

- Individual surveys will be kept confidential.
- Many groups may choose to provide more formal, lengthy submissions, and these will be posted on the Climate Action Leadership Site

### **15. Will a summary be provided? When?**

- A summary of all the survey results will be publicly posted after the comment period is over and government has had time to review and compile responses.

### **16. When is the next round of public consultations?**

- The second phase of public consultation begins in December, when citizens, First Nations and stakeholders will be asked to provide feedback on the draft climate plan.

# Discussion Paper

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CLIMATE LEADERSHIP PLAN  
*JULY 2015*





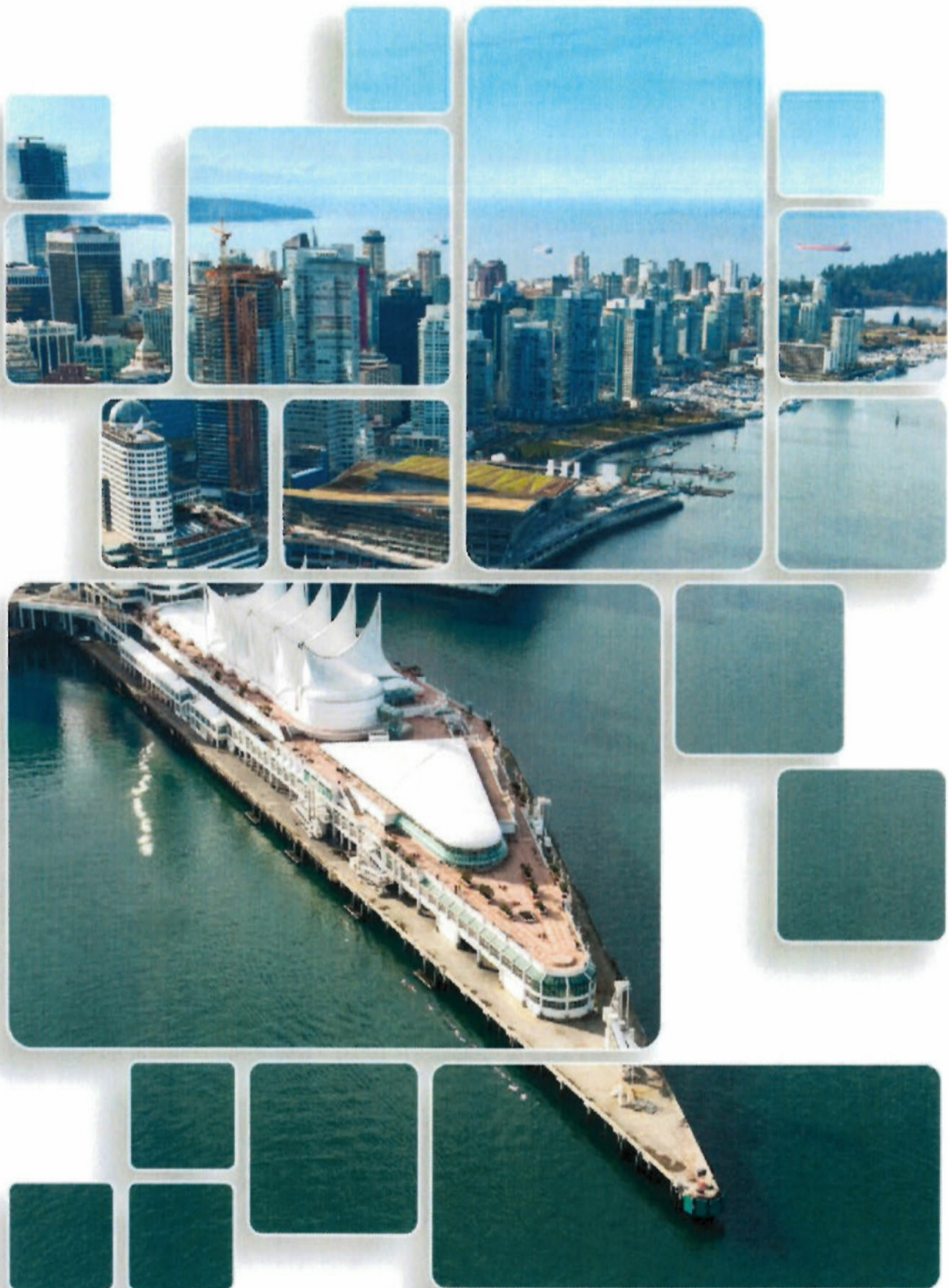


GOVERNMENT WELCOMES YOUR FEEDBACK ON THIS PAPER FOR A ONE-MONTH CONSULTATION PERIOD, FROM JULY 17, 2015 TO AUGUST 17, 2015.

*To share your views on the discussion paper:*

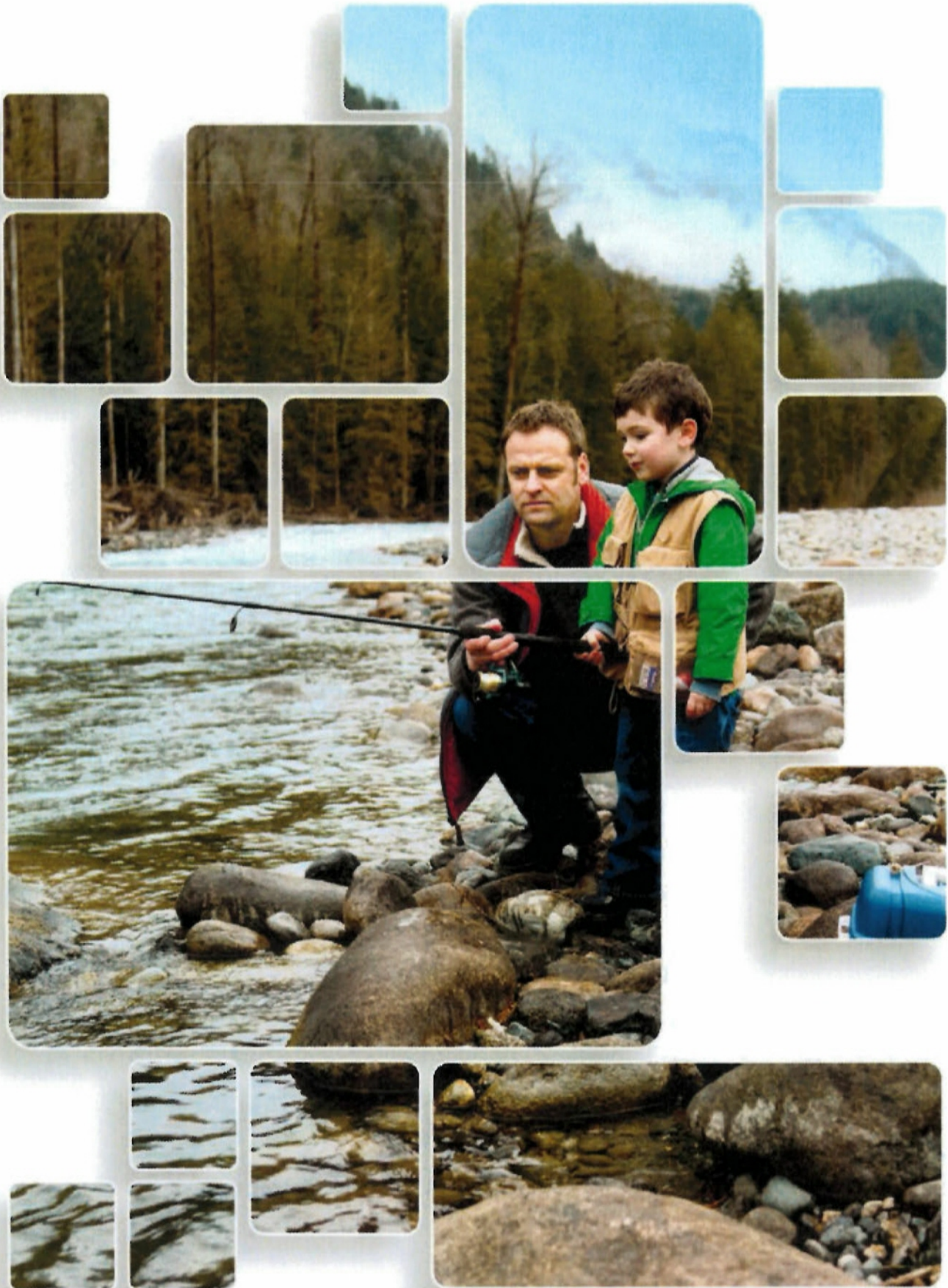
- » Review the questions in this document and how they fit within the four goals regarding how we live, travel, work and what we value.
- » Click on **Take the Survey** to submit your feedback: [\*\*engage.gov.bc.ca/climateleadership/\*\*](http://engage.gov.bc.ca/climateleadership/)
- » Organizations who wish to send additional information can email: [\*\*climateleadershipplan@gov.bc.ca\*\*](mailto:climateleadershipplan@gov.bc.ca)





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# Message from the Minister of Environment

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B.C. has reached significant milestones in addressing climate change. In 2007, we set our greenhouse gas reduction targets based on the findings of the Intergovernmental Panel on Climate Change, the world's

foremost authority on the subject, drawing on the expertise of more than 2,500 scientists.

We introduced North America's first revenue-neutral carbon tax and have achieved carbon neutral government every year since 2010. These initiatives are putting us on a path to a low-carbon future for B.C.

Since setting our targets, much has been accomplished. We achieved our first emission reduction goal, 95 per cent of communities are making progress on climate action commitments, and B.C. has seen a 48 per cent growth in clean technology sales. More than 200 B.C. companies operating in this sector generate over \$2.5 billion in annual revenues.

It's now time to strengthen our collaboration and efforts with business and community leaders who are developing the solutions we need. The climate-related challenges that lie ahead are sizeable, equalled by the rewards of acting on them now.

As we refresh and revitalize B.C.'s climate plan, our focus remains firmly on our commitment to reach our legislated emission reduction targets for 2020 and 2050. Periodic reviews, as recommended by the International Energy Agency, ensure we keep pace with our changing world.

B.C. is moving climate action forward with the advice of the Climate Leadership Team and through public consultation.

People, governments, organizations, businesses — all of us are facing choices in the next few years that will take us into the next phase of our climate change journey. Your input is essential to this process. I want to hear from you before government makes decisions on next steps. You have two opportunities for this: now in response to this discussion paper, and again in December, in providing feedback on a draft climate plan.

This is an important year for international action on climate change. In December, leaders from around the world will gather in Paris to collaborate on new global efforts to reduce greenhouse gas emissions. As a climate leader, we look forward to making a meaningful contribution to those discussions and we are hopeful they will create positive results for all.

Here in B.C., our new plan will help shape how future British Columbians will work, travel and live for decades to come. Together, we can do this. We can address climate change, protect our ecosystems and improve our quality of life.

Thank you for participating in this important process, and I very much look forward to hearing your thoughts and suggestions.

A handwritten signature in black ink, reading 'Mary Polak' in a cursive style.

HONOURABLE MARY POLAK  
MINISTER OF ENVIRONMENT



# Discussion Paper: Climate Leadership Plan

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## *Purpose of Paper*

In 2008, government launched the Climate Action Plan to take B.C. part way to meeting its greenhouse gas emission reduction targets. Earlier this year, the province announced plans to build on that work by developing a new Climate Leadership Plan to move B.C. closer to its long-term goals.

The purpose of this discussion paper is to seek British Columbians' ideas, values and priorities to help shape the Climate Leadership Plan. To help stimulate discussion, the paper provides a framework for public comment on potential solutions as outlined below. Please lend your voice to this important issue.

### **PRINCIPLES:**

Principles guide the discussion and will inform government decisions regarding priorities for climate action over the coming years.

### **GOALS:**

Four goals present a vision of B.C. in 2050 — regarding how we live, travel and work, and what we value.

### **OBJECTIVES:**

Specific objectives identify pathways to the goals.

### **APPROACHES:**

Potential approaches are suggested to help achieve the objectives.

### **SURVEY:**

Each section poses a series of questions to encourage British Columbians to express their priorities. These are recapped in an online survey for your response.

## *How to Participate*

There are two opportunities for British Columbians to participate in shaping new climate policies in B.C. — now in response to this discussion paper, and again in December, in providing feedback on a draft climate plan. We invite all to contribute, including citizens, organizations, businesses, First Nations, and other governments.

Each response to this discussion paper will be reviewed by the B.C. government and considered in developing options for a draft Climate Leadership Plan.

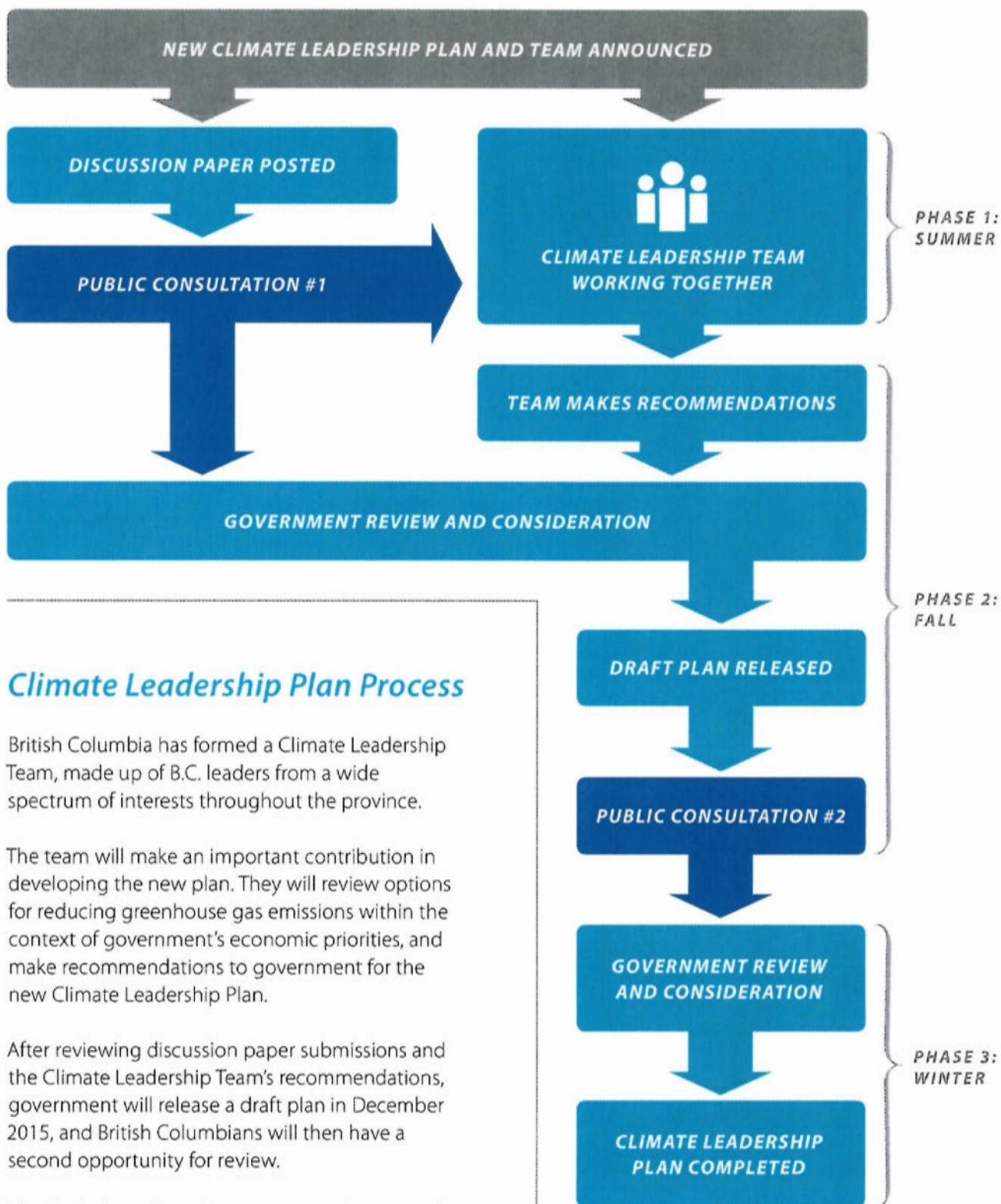
*To share your views on the discussion paper:*

- » Review the questions in this document and how they fit within the four goals regarding how we live, travel, work and what we value.
- » Click on **Take the survey** at [engage.gov.bc.ca/climateleadership/](https://engage.gov.bc.ca/climateleadership/) to submit your choices and comments.
- » Organizations who wish to send additional information can email: [climateleadershipplan@gov.bc.ca](mailto:climateleadershipplan@gov.bc.ca)
- » Respond by post to:  
Climate Leadership Discussion Paper  
Ministry of Environment  
Climate Action Secretariat  
P.O. Box 9486, Stn Prov Govt  
Victoria, B.C. V8W 9W6

Please note that all separate attachments submitted will be **posted publicly** on the government website. Individual surveys will be kept confidential.

## THE CLIMATE LEADERSHIP PLAN PROCESS

*This process will help determine the actions needed to reach our climate goals.*



### Climate Leadership Plan Process

British Columbia has formed a Climate Leadership Team, made up of B.C. leaders from a wide spectrum of interests throughout the province.

The team will make an important contribution in developing the new plan. They will review options for reducing greenhouse gas emissions within the context of government's economic priorities, and make recommendations to government for the new Climate Leadership Plan.

After reviewing discussion paper submissions and the Climate Leadership Team's recommendations, government will release a draft plan in December 2015, and British Columbians will then have a second opportunity for review.

The draft plan will seek input on specific potential policies and actions regarding climate change. The final plan is expected to be released in March 2016.

## The Need for Action

Climate change is our new reality. Science tells us increasing greenhouse gas emissions caused by human behaviour are changing our climate and affecting every aspect of our lives. Science also tells us that we must act now to make a difference.

In our province, we have legislated greenhouse gas emission reduction targets for 2020 and 2050, and we have a responsibility to meet them. This means we must transform the way we live, work and travel.

Our future planning is embracing a broader mindset — protecting our communities from climate change means changing the way we think about and do many things, while creating new economic opportunities.

Adapting to this changing climate means using scientific knowledge about what lies ahead to adjust things like community planning, highway construction, and tree species selection.

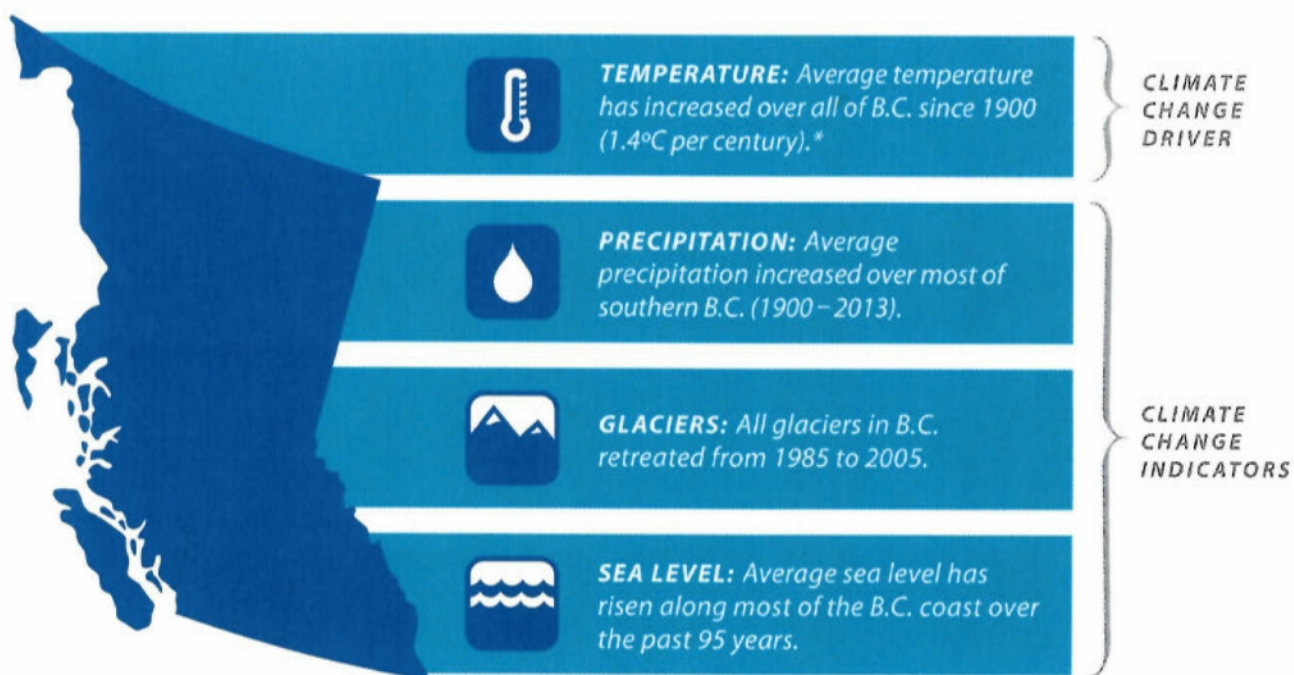
By integrating climate change considerations into our everyday lives, we are reducing unnecessary costs that can result from turning a blind eye to our future climate.

We must decrease our emissions to lessen the severity of climate change. Communities that act to embrace change and minimize use of energy and resources will prosper.

We will transition to patterns of urban development that consume less energy and land. In B.C. and around the world, many city cores are already being revitalized as families embrace liveable neighbourhoods, where people can easily live and work, without the need to drive a car every day. Linked systems of parks and nature that keep our rivers and streams healthy can absorb carbon and offer healthy, active lifestyles.

By incorporating natural features such as green roofs, permeable paving and natural shorelines, we add to our communities' ability to adapt to a changing climate.

### ENVIRONMENTAL CHANGE IN BRITISH COLUMBIA



\* Winter is warmer on average than it was 100 years ago. Higher temperatures drive other climate systems and affect our environment and ecosystems.

Increasing energy efficiency in our industries, buildings, and transportation systems is essential to transform energy use. Super-efficient buildings in our communities will run on clean energy, and waste will become more common as an energy source. Better connected communities, low carbon fuels, and efficient, clean vehicles will all be needed to cut emissions.

Like other governments and communities around the world we are sharing new ideas, creating partnerships and reaching agreements. In 2013, global greenhouse gas emissions reached 32.3 billion tonnes of CO<sub>2</sub>e. Countries like China and India face increasing emissions from coal and oil use, and many developed countries continue to see growth in emissions from transportation and buildings.

B.C.'s policies, technologies and innovation have established this province as a climate solution leader. Globally, governments and communities are managing their emissions, many with the aid of carbon pricing, and the demand for clean fuels and climate solutions will continue to grow. With countries coming together in December 2015 to sign a new climate agreement, small jurisdictions like B.C. can make a significant difference in dealing with global climate change, while creating new economic opportunities.

Our economy will continue to transition through major shifts in technology adoption, energy use and economic structure. This will require a transformation of energy systems and a steep decline in carbon emissions in all sectors of the economy. The decisions we make today are affecting our planet and quality of life well into the future.

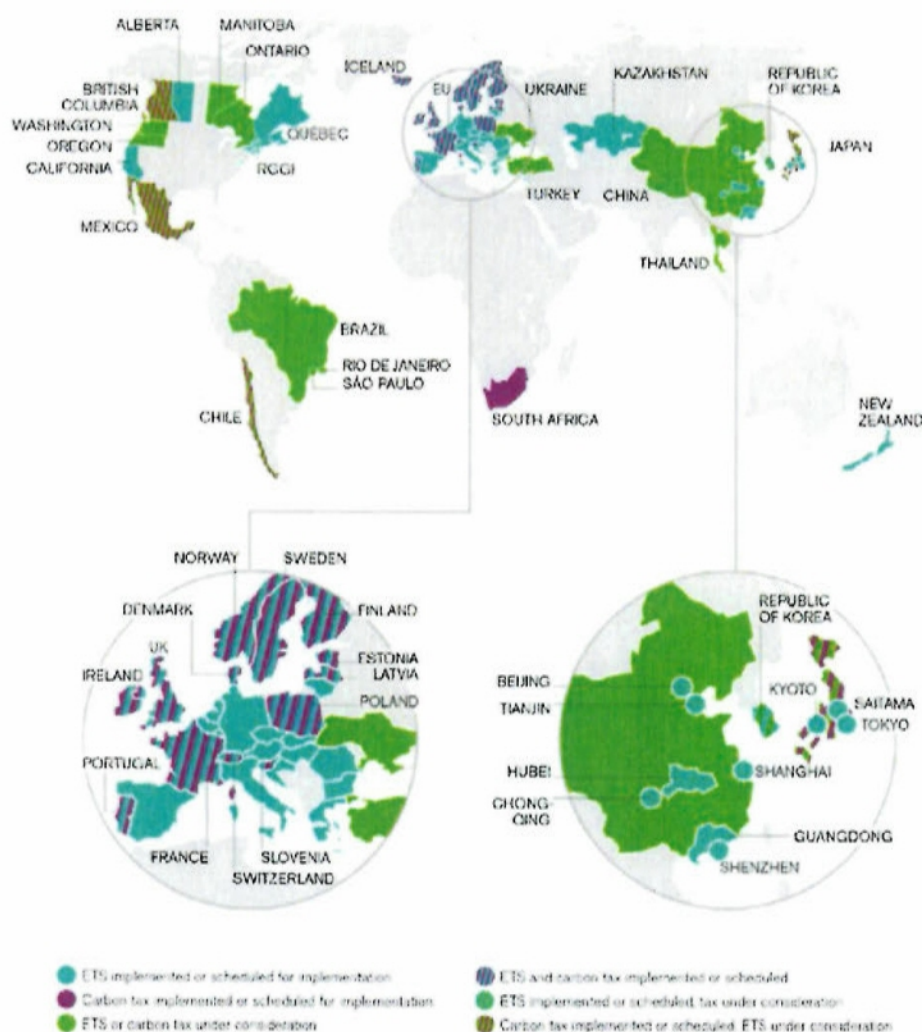
### B.C. A WORLD LEADER ON CARBON PRICING

B.C. established a revenue-neutral carbon tax in 2008 to encourage individuals and organizations to reduce fossil fuel use. The policy has been successful and continues to be a world-leading example of how to build a strong economy in a carbon-constrained world. In 2015, about 40 national and over 20 subnational jurisdictions, representing almost a quarter of global greenhouse gas emissions, are putting a price on carbon, as illustrated in the map.\* This includes carbon taxes, emissions trading systems or other levies. See the next section "Action in British Columbia" for more information on B.C.'s carbon tax.

ETS – Emissions Trading System

\*Carbon Pricing Watch 2015: developed by World Bank and Ecofys.

Source: © 2015 International Bank for Reconstruction and Development / The World Bank



## Action in British Columbia

In 2007, B.C. established greenhouse gas reduction targets. The targets are to reduce our emissions to 33 per cent below 2007 levels by the year 2020, and to 80 per cent below 2007 levels by 2050.

In 2008, B.C. launched a comprehensive Climate Action Plan with measures that would take B.C. about 70 per cent of the way to achieving the 2020 target, if fully implemented. The plan included a carbon tax that applies widely across B.C.'s economy together with numerous other climate actions across all sectors.

British Columbia met its first interim target of reducing emissions by 6 per cent below 2007 levels by 2012. Achieving this target is a major milestone. It shows that emissions can be reduced through carbon pricing while still maintaining a strong economy.

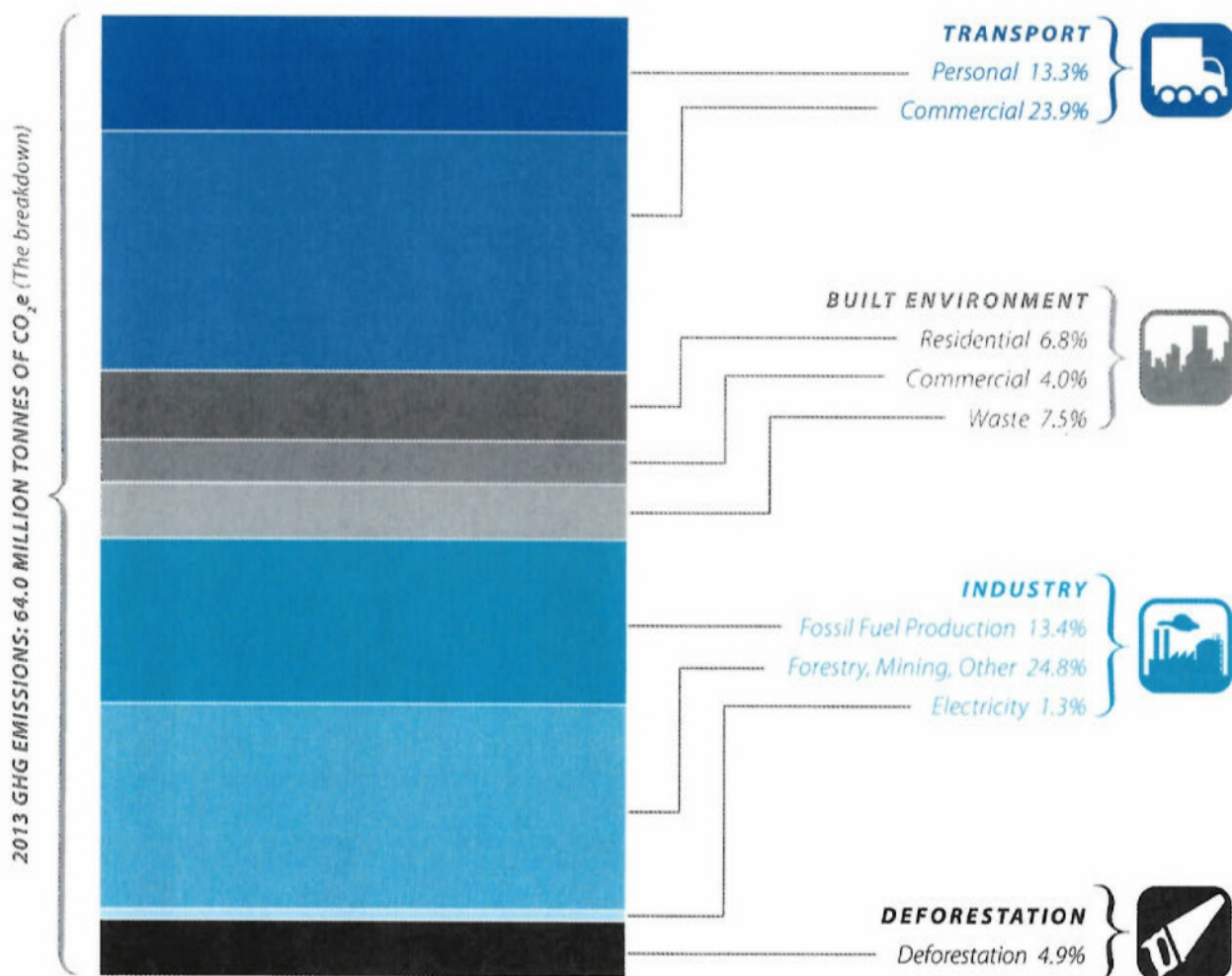
Putting a price on carbon is vital in addressing its impact on climate and future climate change costs.

The price encourages companies and consumers to choose cleaner and more efficient ways to operate, and creates opportunities for low-carbon innovation.



### B.C.'S GREENHOUSE GAS EMISSIONS

In 2013, British Columbia's emissions were 64.0 million tonnes of CO<sub>2</sub>e (Mt CO<sub>2</sub>e). Most emissions can be grouped into three categories: transportation, the built environment, and industry. Each provides opportunity for reductions. B.C. can also store or sequester more carbon in forests.



Organizations such as the World Bank, Organisation for Economic Co-operation and Development and the United Nations identify B.C.'s revenue-neutral carbon tax as a model to follow. The carbon tax, introduced in 2008 at \$10 per tonne of carbon dioxide equivalent emissions (CO<sub>2</sub>e), was increased gradually by \$5/tonne annually until it reached \$30/tonne in 2012. B.C. has committed to keep the rate at \$30/tonne until 2018.

Carbon pricing, together with other climate actions have not only helped the province meet its 2012 GHG reduction targets, but have created a foundation of low carbon and clean technology expertise that will help B.C. remain competitive in the changing global economy.

The British Columbia government recognizes that more actions are needed to keep pace and achieve our targets, as our economy grows and diversifies. For example, the province is preparing to develop a liquefied natural gas industry over the next decade. LNG could reduce global emissions by replacing the use of coal in fast growing economies such as China and India.

British Columbia can play a role producing this transition fuel as cleanly as possible, and will also use LNG as the province's economy transitions to cleaner fuels.

**ONCE YOU HAVE FINISHED THIS PAPER, BE SURE TO TAKE THE SURVEY ON OUR WEBSITE. THE SURVEY IS OPEN JULY 17 TO AUGUST 17.**

**BRITISH COLUMBIA** | **Climate Action Leadership** | [Services & Forms](#) | [Contact Government](#) | [A A A](#)

[Home](#) | [Climate 101](#) | [Engagement Process](#) | [Ways to Participate](#)

## Join the Discussion

Welcome to B.C.'s climate action consultation, open from **July 17th to August 17th at 4pm**.

This is an opportunity to contribute your ideas and priorities for this next phase of climate action. Your input will be invaluable in helping us to develop the **Climate Leadership Plan**.

In December, you will have another chance to participate, in providing feedback on a more detailed draft plan.

In 2007, B.C. set greenhouse gas reduction targets based on the findings of the Intergovernmental Panel on Climate Change, the world's foremost authority on the subject.

Since then, much has been accomplished. We have introduced North America's first revenue-neutral carbon tax and achieved carbon neutral government every year since 2010. We have started down a path to a low-carbon future.

In 2008, government launched the Climate Action Plan to take B.C. part way to meeting its reduction targets. The Climate Leadership Plan will build on that work and move the province closer to its long-term goals.

So please go ahead, read the [Discussion Paper](#) and take the [survey](#).

[Read the Discussion Paper](#)

[Take the Survey](#)

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Another key consideration for British Columbians is a decision on the future direction of the carbon tax.

Governments, companies, organizations and citizens can also do many other things to keep British Columbia on track to the 2050 target.

It will take a comprehensive approach to meet this target and reduce emissions to 13 million tonnes from 62 million tonnes over that time frame in a way that maintains a strong economy.

Development of this second phase of climate action builds on a solid foundation – climate action already in place, experience and expertise throughout British Columbia, and a strong carbon pricing mechanism.



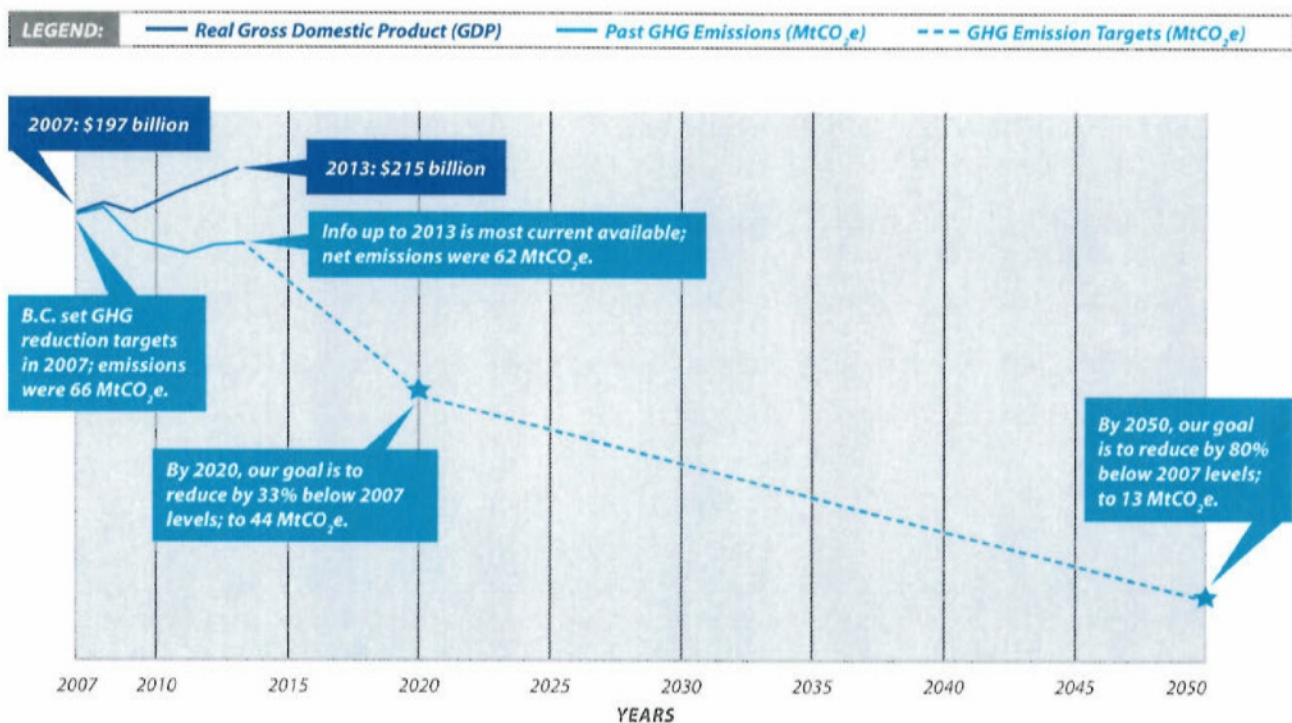
#### CLIMATE ACTION

For more information on B.C. climate action, click here:

[engage.gov.bc.ca/climateleadership/climate-101/](http://engage.gov.bc.ca/climateleadership/climate-101/)

#### BRITISH COLUMBIA'S HISTORIC GHG EMISSIONS, GDP AND FUTURE TARGETS

Since 2007, our action has been successful in controlling greenhouse gas emissions while maintaining a strong economy. In the absence of increased action, we can expect emissions to rise to 2050 as our population and economy grow.



Sources: Real GDP (Statistics Canada); and B.C. GHG Emissions (Ministry of Environment: 2013 - 62 MtCO<sub>2</sub>e net emissions after offsets).

Chart is for illustrative purposes.



# Principles

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With your help, government is developing the Climate Leadership Plan to reduce emissions, adapt to climate change and improve the lives of British Columbians. Like the greenhouse gas reduction targets announced in 2007, policies in the Climate Leadership Plan will be informed by science. The plan will also align with the following principles, which will help meet targets, ensure public safety and protect our environment.

1

GOVERNMENT TAKES ACTIONS NOW THAT WILL RESULT IN BOTH SHORT- AND LONG-TERM EMISSION REDUCTIONS.

2

ACTIONS BALANCE OUTCOMES ACROSS ECONOMIC, ENVIRONMENTAL, AND SOCIAL OBJECTIVES.

3

THE APPROACH RECOGNIZES WE ALL HAVE RESPONSIBILITY — IN B.C. AND GLOBALLY.

4

DECISION MAKING AND REPORTING ON PROGRESS ARE TRANSPARENT.

5

THE APPROACH ADDRESSES THE NEEDS OF THOSE INDIVIDUALS AND FAMILIES LEAST ABLE TO RESPOND.

6

COLLABORATION AND PARTNERSHIPS ARE CRITICAL TO LONG-TERM SUCCESS.






# Goals, Objectives and Approaches

## Areas of Action and Goals

Government would like you to help define B.C.'s priority climate actions. This is important as we all will need to make choices to effectively address climate change.

This section outlines four areas relating to a vision of British Columbia in 2050. Each area — the way we live, travel and work, and what we value — has a specific goal, followed later in the discussion paper by objectives and potential approaches to curb emissions and address climate change.

AREA OF ACTION	THE FOCUS	THE GOAL
 1. The Way We Live	Buildings, community design, and waste.	Communities are thriving and resilient in the face of climate change.
 2. The Way We Travel	Movement of people and goods.	People and goods move efficiently and reliably, using clean transportation.
 3. The Way We Work	Business, industry, products and services.	B.C.'s economy remains strong, and jobs continue to be created, while greenhouse gas emissions fall.
 4. What We Value	How we consider the cost of climate change to society when making decisions.	The cost of climate change for society is considered whenever British Columbians make important decisions.

## Objectives and Approaches

On the next page, we outline objectives and approaches to meet our four goals for consideration in developing the draft Climate Leadership Plan. After reading the section, please provide feedback through the online survey. We will need to act in all four areas to meet our targets. Government will chart actions over time to address various challenges, such as technological, financial, and other constraints. Because of this, we would like you to consider the following questions for each goal within the four areas of action. The questions will be included in the online survey.

### QUESTIONS TO CONSIDER:

*In the short term, which of the four goals needs the most immediate attention in order for B.C. to achieve its 2020 targets? Why?*

*In the long term, which of the four goals needs the most immediate attention in order for B.C. to achieve its 2050 targets? Why?*



## 1. THE WAY WE LIVE

### **Goal 1: Communities are thriving and resilient in the face of climate change.**

*Objectives and approaches to support this goal:*

#### **1.1 People live, work and play in their local community, to minimize energy consumption.**

- » People live in healthy, integrated communities requiring less travel between work, homes, schools, services, shops and parks. Communities plan for the best use of marine and land resources. Products and food are produced as close as practically possible.
- » Having many different facilities closely located creates efficiencies between operations, such as using waste heat from a rink to heat the nearby swimming pool, a central heating plant for a district, or a plant heating offices in the day and residential buildings at night.

#### **1.2 Buildings and communities produce as much or more energy than they consume; waste is a source of energy.**

- » Consistent information on energy performance and efficiency targets for new and existing buildings allows people to make informed decisions regarding energy costs and the carbon content of energy sources when purchasing or renting space. Communities track where energy is used, wasted, generated and transported to efficiently link energy sources with needs.
- » District and distributed energy systems allow buildings to use energy as efficiently as possible, for example, by generating heat at a central plant or reclaiming waste heat from sewers, and water and waste systems.

#### **1.3 Planning decisions prepare communities to anticipate and recover from extreme weather events.**

- » To make communities safer, land development considers climate change risks, such as increased wildfires, more extreme flooding, avalanches and landslides.
- » Integrating natural systems into community infrastructure provides protection and makes communities more liveable. (Examples of natural systems include wetland restoration to protect against flooding and low-impact development such as permeable parking lots to absorb water run-off.)

#### **ONLINE SURVEY FOR GOAL 1: COMMUNITIES ARE THRIVING AND RESILIENT IN THE FACE OF CLIMATE CHANGE.**

In the online survey, you will be asked to indicate your level of support for each of the following statements as they relate to achieving Goal 1:

- » Minimizing travel and energy use needs to be a priority for community planning.
- » Regulations and incentives should require more energy-efficient buildings and greater uptake of clean energy technologies.
- » Governments need to invest more in building resilience to extreme weather events and provide stronger direction regarding appropriate places to build.
- » Local food supply and low-carbon businesses should be strongly supported by communities.



## 2. THE WAY WE TRAVEL

**Goal 2: People and goods move efficiently and reliably, using clean transportation.**

*Objectives and approaches to support this goal:*

**2.1 Energy efficient transportation systems provide clean travel options that are interconnected and accessible.**

- » People and organizations have easy access to clean transportation systems.
- » People and organizations choose clean and safe travel modes to reach destinations or move goods.
- » Community design allows for less travel on a daily basis.

**2.2 Almost all vehicles have no emissions, running on clean energy produced regionally.**

- » People and organizations have access to affordable zero emission and other clean energy vehicles when travel and transport of goods are required.
- » Renewable fuels like hydro-electricity and biodiesel are available where needed.

**2.3 Transportation and energy transmission infrastructure is safe and reliable in a changing climate.**

- » Infrastructure is located, designed and maintained to withstand extreme weather conditions.

**ONLINE SURVEY FOR GOAL 2:  
PEOPLE AND GOODS MOVE  
EFFICIENTLY AND RELIABLY, USING  
CLEAN TRANSPORTATION.**

In the online survey, you will be asked to indicate your level of support for each of the following statements as they relate to achieving Goal 2:

- » Increasing use of clean, coordinated transportation such as public transit, carpooling, shared travel, bicycles and walking should be a government priority.
- » People should be encouraged to drive less through incentives or increased costs (e.g. for using fossil fuels).
- » Regulations and incentives should be expanded to increase the use of cleaner vehicles and fuels.
- » Public and private investments should be directed towards infrastructure designed to withstand extreme weather conditions.



### 3. THE WAY WE WORK

**Goal 3: B.C.'s economy remains strong, and jobs continue to be created, while greenhouse gas emissions fall.**

*Objectives and approaches to support this goal:*

**3.1 Organizations and employees embrace opportunities to contribute to B.C.'s climate goals.**

- » Businesses reduce waste, increase productivity and switch to lower carbon energy sources.
- » B.C.'s workforce has the technology, skills and knowledge to drive the transition to the low-carbon economy.

**3.2 Competitive companies drive innovation and adopt technology to cut their carbon costs.**

- » Businesses ready to adopt innovation achieve the highest productivity while cutting emissions.
- » Companies are successful, while reducing emissions and saving money when they consider carbon and climate in business decisions.

**3.3 Clean technology and storing carbon in forests and underground are important, growing sectors of the economy.**

- » The technology sector is an important pillar of B.C.'s economy, attracting investment and exporting innovation worldwide.
- » B.C. businesses, governments, First Nations, and organizations are vigorous participants in global carbon offset markets.

**ONLINE SURVEY FOR GOAL 3:**

**B.C.'S ECONOMY REMAINS STRONG, AND JOBS CONTINUE TO BE CREATED, WHILE GHG EMISSIONS FALL.**

In the online survey, you will be asked to indicate your level of support for each of the following statements as they relate to achieving Goal 3:

- » Governments, businesses, universities and colleges need to accelerate development of a workforce that excels in a low-carbon economy.
- » Consumers should use their purchasing power to encourage organizations to reduce their emissions.
- » Government should use regulations and incentives to drive organizations to innovate and cut their emissions while growing their business.
- » New major sources of emissions in the province should be required to align with B.C.'s climate plan.
- » Government and business should collaborate to expand technology exports and access to global carbon markets and investments.



## 4. WHAT WE VALUE

**Goal 4: The cost of climate change for society is considered whenever British Columbians make important decisions.**

*Objectives and approaches to support this goal:*

**4.1 The price of carbon encourages businesses, organizations and people to reduce carbon emissions.**

- » The price of carbon considers multiple factors such as the long-term cost of damage to the environment, the cost to change to the best alternative, or the cost to change behaviours.
- » Carbon prices may differ by group or sector to reach emission reduction goals while maintaining a strong economy.

**4.2 Climate change risks to people, infrastructure and our natural environment are considered in important decisions.**

- » Monitoring the impacts of climate change informs decisions regarding natural resources (e.g. agriculture, forestry, fisheries, protected areas, available drinking water).
- » Considering future climate change in decisions, such as land management and major projects, improves long-term outcomes.

**ONLINE SURVEY FOR GOAL 4:  
THE COST OF CLIMATE CHANGE FOR SOCIETY  
IS CONSIDERED WHENEVER BRITISH  
COLUMBIANS MAKE IMPORTANT DECISIONS.**

In the online survey, you will be asked to indicate your level of support for each of the following statements as they relate to achieving Goal 4:

- » Government should expand the use of carbon pricing to stimulate business and consumer decisions that reduce emissions.
- » Government should improve the affordability of solutions that allow business and consumers to reduce emissions and prepare for climate change.
- » Government should set targets for types of emissions (e.g. transportation, industry, buildings, etc.) to get reductions.
- » Government should use regulations and incentives to drive organizations and people to consider costs of adapting to climate change in important decisions.

\* Putting a price on carbon recognizes its impact on our environment and future climate change costs. Carbon pricing reduces GHG emissions by encouraging companies and consumers to choose cleaner and more efficient ways to operate. B.C.'s carbon tax rate is \$30 per tonne of carbon dioxide equivalent emissions (CO<sub>2</sub>e). It is revenue neutral, with revenues returned to British Columbians through personal and business tax reductions.



# Summary

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Earlier in the document we outlined six guiding principles. And we've presented specific goals for further discussion within four areas of action: the way we live, the way we travel, the way we work, and what we value. We also provided objectives and potential approaches to achieving those goals, and ultimately our greenhouse gas reduction targets by 2050. Now it's your chance to provide input.

We all contribute to climate change and we are all affected by its impacts. Our decisions today affect how we will live tomorrow. That's why it is very important that we all have a voice in shaping that future.

This document is posted for a one-month consultation period, from **July 17, 2015 to August 17, 2015**. So please take the survey!

## How to Participate

Government wants to understand British Columbians' ideas, values and priorities for climate action for development of the Climate Leadership Plan.

*To share your views on the discussion paper:*

- » Review the questions in this document and how they fit within the four goals regarding how we live, travel, work and what we value.
- » Click on **Take the survey** at [engage.gov.bc.ca/climateleadership/](http://engage.gov.bc.ca/climateleadership/) to submit your choices and comments.
- » Organizations who wish to send additional information can email: [climateleadershipplan@gov.bc.ca](mailto:climateleadershipplan@gov.bc.ca)
- » Respond by post to:  
Climate Leadership Discussion Paper  
Ministry of Environment  
Climate Action Secretariat  
P.O. Box 9486, Stn Prov Govt  
Victoria, B.C. V8W 9W6

Please note that all separate attachments submitted will be **posted publicly** on the government website. Individual surveys will be kept confidential.

# Appendix

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## Resources

### SCIENCE OF CLIMATE CHANGE

IPCC Fifth Assessment Report (AR5) Climate Science Headline Statements:  
[http://www.ipcc.ch/news\\_and\\_events/docs/ar5/ar5\\_wg1\\_headlines.pdf](http://www.ipcc.ch/news_and_events/docs/ar5/ar5_wg1_headlines.pdf)

2014 National Climate Assessment US Pacific NW Chapter:  
<http://nca2014.globalchange.gov/report/regions/northwest>

Natural Resources Canada: Canada in a Changing Climate: Sector Perspectives on Impacts and Adaptation (Overview of Canada's Changing Climate):  
[http://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/earthsciences/pdf/assess/2014/pdf/Chapter2-Overview\\_Eng.pdf](http://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/earthsciences/pdf/assess/2014/pdf/Chapter2-Overview_Eng.pdf)

For informative and accessible videos about the current climate science please see; Pacific Institute for Climate Solutions 101 Climate Science Courses: Observable Changes:  
[http://pics.uvic.ca/education/climate-insights-101#quicktabs-climate\\_insights\\_101=0](http://pics.uvic.ca/education/climate-insights-101#quicktabs-climate_insights_101=0)

### ADAPTATION

Natural Resources Canada: Canada in a Changing Climate: Sector Perspectives on Impacts and Adaptation (Synthesis):  
[http://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/earthsciences/pdf/assess/2014/pdf/Synthesis\\_Eng.pdf](http://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/earthsciences/pdf/assess/2014/pdf/Synthesis_Eng.pdf)

ReTooling for Climate Change — a comprehensive website on climate change adaptation in British Columbia:  
<http://www.retooling.ca/>

Plan2Adapt – an online tool describing projected future climate conditions for regions throughout B.C.:  
<http://www.pacificclimate.org/analysis-tools/plan2adapt>

For accessible and informative videos about Climate Change Impacts and Adaptation in B.C., see the Climate Insights 101 Course on Adaptation presented by the Pacific Institute for Climate Solutions:  
[http://pics.uvic.ca/education/climate-insights-101#quicktabs-climate\\_insights\\_101=1](http://pics.uvic.ca/education/climate-insights-101#quicktabs-climate_insights_101=1)

### CLIMATE ACTION EMISSIONS

2014 Progress to Targets Report:  
[www2.gov.bc.ca/assets/gov/environment/climate-change/policy-legislation-and-responses/2014-progress-to-targets.pdf](http://www2.gov.bc.ca/assets/gov/environment/climate-change/policy-legislation-and-responses/2014-progress-to-targets.pdf)

B.C. Provincial Greenhouse Gas Inventory Report:  
[www2.gov.bc.ca/assets/gov/environment/climate-change/reports-and-data/provincial-ghg-inventory-report-bcs-pir/pir-2012-full-report.pdf](http://www2.gov.bc.ca/assets/gov/environment/climate-change/reports-and-data/provincial-ghg-inventory-report-bcs-pir/pir-2012-full-report.pdf)

B.C. Government Climate Policy, Legislation and Programs:  
<http://www2.gov.bc.ca/gov/content/environment/climate-change/policy-legislation-programs>

2008 BC Climate Action Plan:  
[www2.gov.bc.ca/assets/gov/environment/climate-change/policy-legislation-and-responses/climateaction\\_plan\\_web.pdf](http://www2.gov.bc.ca/assets/gov/environment/climate-change/policy-legislation-and-responses/climateaction_plan_web.pdf)

## GREEN ECONOMY

B.C.'s Green Economy Update 2014: Growing Green Jobs:  
[http://bcge.ca/wp-content/uploads/2014/03/GreenEconomy\\_2014.pdf](http://bcge.ca/wp-content/uploads/2014/03/GreenEconomy_2014.pdf)

BC Green Technology Report Card, KPMG 2014:  
[www.kpmg.com/Ca/en/IssuesAndInsights/ArticlesPublications/Documents/6943-BC-Tech-Report-card-FY14-web.pdf](http://www.kpmg.com/Ca/en/IssuesAndInsights/ArticlesPublications/Documents/6943-BC-Tech-Report-card-FY14-web.pdf)

Cleantech Report Card for British Columbia, KPMG 2011:  
[http://www.ballard.com/files/PDF/Media/Cleantech\\_Report\\_Card\\_for\\_BC.pdf](http://www.ballard.com/files/PDF/Media/Cleantech_Report_Card_for_BC.pdf)

ICE Fund: <http://www2.gov.bc.ca/gov/content/industry/electricity-alternative-energy/energy-efficiency-conservation/innovative-clean-energy-ice-fund>

B.C.'s Offset Projects:  
<http://www2.gov.bc.ca/gov/content/environment/climate-change/reports-data/carbon-neutral-action-reports/carbon-offset-projects>

## INTERNATIONAL CLIMATE ACTION

Background on the UNFCCC and agreements: [http://unfccc.int/essential\\_background/items/6031.php](http://unfccc.int/essential_background/items/6031.php)

Information on Canada's climate action: <http://www.climatechange.gc.ca/default.asp?lang=En&n=E18C8F2D-1>

Information on the Pacific Coast Collaborative Action Plan on Climate and Energy:  
<http://www.pacificcoastcollaborative.org/Documents/Pacific%20Coast%20Climate%20Action%20Plan.pdf>

Information on the Compact of States and Regions:  
<http://www.theclimategroup.org/what-we-do/programs/compact-of-states-and-regions/>

International Emissions Trading Association, GHG Report, 2014: <http://www.ieta.org/ghgmarket2014>

## COMMUNITIES AND CLIMATE ACTION

Climate Action Revenue Incentive Program (CARIP) Summary Report, 2013. CARIP is a provincial grant program, providing funds to local government signatories to the Climate Action Charter. Local governments must submit their list of actions yearly. <http://www.cscd.gov.bc.ca/lgd/greencommunities/carip.htm>

Federation of Canadian Municipalities (FCM) National Measures Report. A joint FCM and ICLEI-Canada report on municipal GHG reduction initiatives, ranging from simple energy efficiency retrofits at municipal facilities to large-scale investments in district energy systems.  
[http://www.fcm.ca/Documents/reports/PCP/2014/PCP\\_National\\_Measures\\_Report\\_2013\\_EN.pdf](http://www.fcm.ca/Documents/reports/PCP/2014/PCP_National_Measures_Report_2013_EN.pdf)

Integrated Community Energy Solutions: Progress Report, B.C., August 2013. The QUEST BC report summarizes the significant momentum across BC related to integrated approaches to energy at the community level, across silos of land use and community, housing and buildings, local community services, transportation, energy supply and distribution, and industry. <http://www.questcanada.org/caucus/bc>

Exploring Transformational Change. This paper draws on the modelling experiences of a select number of BC communities targeting GHG reductions beyond 2040 to better understand the characteristics of a low carbon future for BC communities. <http://www.toolkit.bc.ca/Resource/Transformational-Change-LG-Pathways-2050>

## Glossary

**Adaptation:** The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects.

**Anthropogenic Emissions:** Emissions of greenhouse gases (GHGs), aerosols, and precursors of a GHG or aerosol caused by human activities. These activities include the burning of fossil fuels, deforestation, land use changes (LUC), livestock production, fertilization, waste management, and industrial processes.

**Bioenergy:** Energy derived from any form of biomass such as recently living organisms or their metabolic by-products.

**Carbon Market:** A market where emission allowances and/or offsets are traded to facilitate countries, companies, and organizations in managing their greenhouse gas emissions.

**Carbon Footprint:** Measure of the exclusive total amount of emissions of carbon dioxide (CO<sub>2</sub>) that is directly and indirectly caused by an activity or is accumulated over the life stages of a product (Wiedmann and Minx, 2008).

**Carbon Price:** The price for avoided or released carbon dioxide (CO<sub>2</sub>) or CO<sub>2</sub>-equivalent emissions. This may refer to the rate of a carbon tax, or the price of emission permits. In many models that are used to assess the economic costs of mitigation, carbon prices are used as a proxy to represent the level of effort in mitigation policies.

**Clean Tech Sector:** Clean technology companies refer to clean tech firms involved in the research, development or deployment of technological innovations in energy generation, transmission and storage; energy use in transportation; energy efficiency and resource management.

**Climate:** Climate in a narrow sense is usually defined as the average weather, or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands or millions of years. The classical period for averaging these variables is 30 years, as defined by the World Meteorological Organization. The relevant quantities are most often surface variables such as temperature, precipitation and wind. Climate in a wider sense is the state, including a statistical description, of the climate system.

**Climate Change:** Climate change refers to a change in the state of the climate that can be identified (e. g., by using statistical tests) by changes in the mean and / or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forces such as modulations of the solar cycles, volcanic eruptions and persistent anthropogenic changes in the composition of the atmosphere or in land use.

*The United Nations Framework Convention on Climate Change (UNFCCC), in its Article 1, defines climate change as: 'a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods'. The UNFCCC makes a distinction between climate change attributable to human activities altering the atmospheric composition, and climate variability attributable to natural causes.*

**Community Resilience:** Community resilience is a measure of the sustained ability of a community to use available resources to respond to, withstand, and recover from adverse situations.

**Co-benefits:** The positive effects that a policy or measure aimed at one objective might have on other objectives, without yet evaluating the net effect on overall social welfare. Co-benefits are often subject to uncertainty and depend on, among others, local circumstances and implementation practices. Co-benefits are often referred to as ancillary benefits.

**Decarbonization:** The process by which countries or other entities aim to achieve a low-carbon economy, or by which individuals aim to reduce their carbon consumption.

**Ecosystem:** A functional unit consisting of living organisms, their nonliving environment, and the interactions within and between them. The components included in a given ecosystem and its spatial boundaries depend on the purpose for which the ecosystem is defined: in some cases they are relatively sharp, while in others they are diffuse. Ecosystem boundaries can change over time. Ecosystems are nested within other ecosystems, and their scale can range from very small to the entire biosphere. In the current era, most ecosystems either contain people as key organisms, or are influenced by the effects of human activities in their environment.

**Emission Standard:** An emission level that, by law or by voluntary agreement, may not be exceeded. Many standards use emission factors in their prescription and therefore do not impose absolute limits on the emissions.

**Energy:** The power of 'doing work' possessed at any instant by a body or system of bodies. Energy is classified in a variety of types and becomes available to human ends when it flows from one place to another or is converted from one type into another.

**Energy Efficiency (EE):** The ratio of useful energy output of a system, conversion process, or activity to its energy input. In economics, the term may describe the ratio of economic output to energy input.

**Fossil Fuels:** Carbon-based fuels from fossil hydrocarbon deposits, including coal, peat, oil, and natural gas.

**Global Warming:** Global warming refers to the gradual increase, observed or projected, in global surface temperature, as one of the consequences of radiative forcing caused by anthropogenic emissions.

**Greenhouse Gas (GHG):** GHGs are those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of terrestrial radiation emitted by the earth's surface, the atmosphere itself, and by clouds. This property causes the greenhouse effect. Water vapour (H<sub>2</sub>O), carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), methane (CH<sub>4</sub>) and ozone (O<sub>3</sub>) are the primary GHGs in the earth's atmosphere. Moreover, there are a number of entirely human-made GHGs in the atmosphere, such as the halocarbons and other chlorine- and bromine containing substances, dealt with under the Montreal Protocol. Beside CO<sub>2</sub>, N<sub>2</sub>O and CH<sub>4</sub>, the Kyoto Protocol deals with the GHGs sulphur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs).

**Gross Domestic Product (GDP):** The sum of gross value added, at purchasers' prices, by all resident and non-resident producers in the economy, plus any taxes and minus any subsidies not included in the value of the products in a country or a geographic region for a given period, normally one year. GDP is calculated without deducting for depreciation of fabricated assets or depletion and degradation of natural resources.

**Integrated Communities:** Rural and urban communities that are complete, compact, and energy efficient. These communities have mechanisms in place to foster a built environment that supports a reduction in car dependency and energy use, implement policies and processes that support fast tracking of green development projects, and adopt zoning practices that encourage land use patterns that increase density and reduce sprawl.

**Land Use Change:** Land use change (LUC) refers to a change in the use or management of land by humans, which may lead to a change in land cover. Land cover and LUC may have an impact on the surface albedo, evapotranspiration, sources and sinks of GHGs, or other properties of the climate system and may thus give rise to radiative forcing and / or other impacts on climate, locally or globally.

**Low-carbon Business:** A business whose direct activities, inputs, and outputs produce little to no greenhouse gas emissions.





GOVERNMENT WELCOMES YOUR FEEDBACK ON THIS PAPER FOR A ONE-MONTH CONSULTATION PERIOD, FROM JULY 17, 2015 TO AUGUST 17, 2015.

*To share your views on the discussion paper:*

- » Review the questions in this document and how they fit within the four goals regarding how we live, travel, work and what we value.
- » Click on **Take the Survey** to submit your feedback: **[engage.gov.bc.ca/climateleadership/](http://engage.gov.bc.ca/climateleadership/)**
- » Organizations who wish to send additional information can email: **[climateleadershipplan@gov.bc.ca](mailto:climateleadershipplan@gov.bc.ca)**



FOR MORE INFORMATION VISIT THE WEBSITE:  
[ENGAGE.GOV.BC.CA/CLIMATELEADERSHIP/](http://ENGAGE.GOV.BC.CA/CLIMATELEADERSHIP/)

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## Pukteris, Jazmin MNGD:EX

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**From:** Wray, Jennifer MNGD:EX  
**Sent:** Friday, February 10, 2017 1:48 PM  
**To:** Hansen, Brian MNGD:EX  
**Cc:** Restall, Analise MNGD:EX; Todd, Melissa L MNGD:EX; Nelthorpe, Colleen MNGD:EX  
**Subject:** RE: Agenda - February 15 2017.docx  
**Attachments:** Agenda - February 15 2017.docx

Here is an updated version. I will confirm final attendance list on Tuesday. Let me know once you confirm with Chief Dennis. Then I will circulate.

Tx,

Jennifer Wray  
A/Executive Director  
LNG Task Force, Ministry of Natural Gas Development  
250 217-3470

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**From:** Hansen, Brian MNGD:EX  
**Sent:** Friday, February 10, 2017 1:20 PM  
**To:** Wray, Jennifer MNGD:EX  
**Cc:** Restall, Analise MNGD:EX; Todd, Melissa L MNGD:EX; Nelthorpe, Colleen MNGD:EX  
**Subject:** RE: Agenda - February 15 2017.docx

Thx for this Jenn.....will have to restructure slightly, and title as Huuy-ay-aht Nation / Steelhead LNG / Provincial Government Meeting and add Huuy-ay-aht Chief Councillor Robert Dennis – at the start of the agenda following introductions and welcome.....Project/Community Perspective (before we circulate let me check with him to see how he would like this stated)

Attached a rework of some elements of the agenda for your consideration  
Brian

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**From:** Wray, Jennifer MNGD:EX  
**Sent:** Friday, February 10, 2017 12:21 PM  
**To:** Hansen, Brian MNGD:EX  
**Cc:** Restall, Analise MNGD:EX; Todd, Melissa L MNGD:EX; Nelthorpe, Colleen MNGD:EX  
**Subject:** Agenda - February 15 2017.docx

Hi Brian –

Attached is the draft agenda for the cross-government Steelhead mtg. Apologies if this hasn't captured the issues to be discussed in enough detail. I have used the team government meeting standard agenda as a jumping off point.

Happy to make changes.

Tx,  
Jen

Huuy-ay-aht Nation/Steelhead LNG/BC Government Meeting

Date: Wednesday, February 15, 11:00AM –3:00 PM

BC Hydro Building – 333 Dunsmuir Street, Vancouver

Meeting Room #1, 8<sup>th</sup> Floor

AGENDA

No.	Item	Lead
1.	Welcome and Introductions	Brian Hansen
2.	Huuy-ay-aht Nation <ul style="list-style-type: none"><li>• Project/Community Perspective</li></ul>	Chief Councillor Robert Dennis
3.	Steelhead Project Overview	TBD
4.	Climate Action Secretariat <ul style="list-style-type: none"><li>• Climate Leadership – GIRRCA</li></ul>	Tim Lesiuk
5.	Environmental Assessment Office <ul style="list-style-type: none"><li>• Role of the EAO</li><li>• Q&amp;A on Reviewable Projects</li></ul>	Tracy James
6.	Ministry of Forest, Lands and Natural Resource Operations <ul style="list-style-type: none"><li>• Role of Ministry</li><li>• Crown land and Water Act authorizations</li></ul>	Myles Mana
	<b>Working Lunch</b>	
8.	BC Oil and Gas Commission <ul style="list-style-type: none"><li>• Role of The Commission</li><li>• Regulatory Overview of LNG Projects</li></ul>	Peter Pokorny
9.	Ministry of Finance <ul style="list-style-type: none"><li>• Tax Policy Discussion</li></ul>	Steve Hawkshaw
10.	Ministry of Aboriginal Relations and Reconciliation	Stephen Winn
11.	BC Hydro System and power supply	Rohan Soulsby
12.	Summary, review of action items	Brian Hansen

In attendance:

**Huuy-ay-aht Nation:** Chief Councillor Robert Dennis

**BC Government:** Brian Hansen, Jennifer Wray, Tim Lesiuk, Nathan Braun, Peter Pokorny, Myles Mana, Steve Hawkshaw, , Stephen Winn, Andrea Keil, Tracy James

**BC Hydro:** Rohan Soulsby, Warren Bell

**Steelhead:** Rob Botterell, Ryan Patryluk

December 19, 2016

Hon. Mike de Jong  
Minister of Finance and  
Government House Leader  
PO BOX 9048 STN PROV GOVT  
Victoria BC V8W9E2

Hon. Rich Coleman  
Minister of Natural Gas Development  
PO BOX 9052, STN PROV GOVT.  
Victoria BC V8W9E2

Hon. Bill Bennett  
Minister of Energy and Mines  
PO Box 9060, STN PROV GOVT  
Victoria BC V8W9E2

Hon. Mary Polak  
Minister of Environment  
PO BOX 9063 STN PROV GOVT  
Victoria BC V8W9E2

Dear Ministers:

The Canadian Association of Petroleum Producers (CAPP) is writing to provide perspective on tax competitiveness given its importance with respect to the overall investment environment in British Columbia. In particular I would like to draw attention to the linkage of PST to competitiveness as it relates to the government's commitment to find investment programs to promote the electrification of the upstream oil and gas industry. **s.17**

**s.17**

CAPP at the request of its Board, has redoubled its focus on competitiveness as a very aggressive US administration is seeking to make its domestic energy business a cornerstone of the new government. This is a direct challenge to the attraction of capital investment in Canada.

In September 2016 CAPP provided a submission to the *Commission on Tax Competitiveness* recommending a made-in-BC approach to a value added tax (VAT). Broadly, CAPP supports the Commission's November 2016 recommendations on improving tax competitiveness, with a particular focus on addressing the negative impacts on investment as a result of the PST businesses pay on machinery and equipment, electricity, software and telecommunications services. In response to the Tax Commission recommendations your government has signaled that any substantive changes to the current PST would require broad public consultation and engagement before proceeding.<sup>1</sup>

CAPP also recommended the removal of the PST from industrial power rates in its April 2016 submission on the development of BC's *Climate Leadership Plan*, which aligned with a recommendation from the *Climate Leadership Team*. In that submission CAPP asked government to work with industry to address, manage and mitigate risks associated with electrification in order to capture this significant GHG emission reduction opportunity. It is estimated that up to 3 – 4 MT CO<sub>2</sub>/yr of emissions may be mitigated by electrifying up to 6 Bcf/d of upstream production going forward. This emissions reduction is the equivalent to removing

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<sup>1</sup> <https://news.gov.bc.ca/releases/2016FIN0051-002480>

Hon. Mike de Jong, Minister of Finance and Government House Leader

Hon. Mary Polak, Minister of Environment

Hon. Rich Coleman, Minister of Natural Gas Development

Hon. Bill Bennett, Minister of Energy and Mines

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~700,000 cars off the road each year. Specifically CAPP recommended a three pronged approach to encourage upstream electrification. First, it proposed working with government to develop a fiscal support framework to reduce economic risk and incent operators to electrify in a low natural gas price environment. Second, CAPP recommended improving BC Hydro business processes to ensure timing of future power supply aligns with customer needs. Third, CAPP recommended reducing regulatory uncertainty regarding rates and tariffs for large industrial customers by encouraging a timely completion of BC Hydro's Rate Design Application (RDA) at the BCUC.

In the long term CAPP believes a move towards a made-in BC VAT is the best means to improve competitiveness. However in the short term, there is an immediate need to reduce the impact of PST on industrial power rates to address competitiveness as it relates to upstream electrification. Doing so will help create a positive investment environment, encourage investment in the province and help the BC government achieve its GHG reduction targets and maintain its leadership role on climate change policy.

It is well recognized that BC's industrial power demand has recently been in decline while in the near term power supply is in surplus. BC Hydro is seeking ways to address this decline while maintaining its obligations under the 10 Year Rates Plan.<sup>2</sup> In the province's *Climate Leadership Plan* (August 2016) the government has expressed its interest in finding programs to promote electrification of the upstream oil and gas industry. Thus, there appears to be a natural fit for BC Hydro to offer incentives for oil and gas producers to connect to the low-emission electricity grid, instead of burning their own gas to power upstream operations. Not only would this help to address BC Hydro's declining industrial load by encouraging gas producers to take advantage of ample electricity supply for British Columbia's resource development it would also help to achieve GHG reduction objectives. This represents a much better outcome than the current situation of BC Hydro selling surplus supply at values lower than the BC industrial power rate to markets such as at mid-Columbia which the BC budget forecast to be \$35US/MWh<sup>3</sup>.

Following the release of the *Climate Leadership Team* recommendations and the subsequent general invitation by the provincial government to provide input into the development of the province's *Climate Leadership Plan*, CAPP began working with the BC government and BC Hydro to find economically viable solutions to enable upstream electrification. Once a company chooses to electrify an upstream facility it is making a decades long commitment to use electricity from BC's clean electricity grid. A proponent's decision to electrify creates economic risks for industry while increasing certainly and benefit for BC Hydro. s.21 s.17

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<sup>2</sup> [http://www.bcuc.com/Documents/Proceedings/2016/DOC\\_45742\\_B-17\\_BCH\\_EVID\\_UPDT.pdf](http://www.bcuc.com/Documents/Proceedings/2016/DOC_45742_B-17_BCH_EVID_UPDT.pdf)

<sup>3</sup> [http://bcbudget.gov.bc.ca/2016/bfp/2016\\_Budget\\_and\\_Fiscal\\_Plan.pdf](http://bcbudget.gov.bc.ca/2016/bfp/2016_Budget_and_Fiscal_Plan.pdf) (Page 9)

<sup>4</sup> <https://news.gov.bc.ca/releases/2015ENV0074-001983>

**s.17**

It is also worth noting that today's efforts to further electrify the upstream could not be possible without the early action of some companies who helped make economically feasible the Dawson creek/Chetwynd Area Transmission (DCAT) reinforcement. While these decisions to electrify were made under different economic circumstances than exist today, government should still consider extending some intermediate level of support. Without these forerunners of upstream electrification, today's efforts to pursue greater electrification would not be possible and the emissions reductions from these projects will be significant

The BC government has made it clear that any upfront cost to make electricity available for the natural gas industry would not be undertaken at the expense of other ratepayers; and any such investment would be expected to pay for itself over time.<sup>5</sup> Undoubtedly it will be the new industrial rate payer that ultimately repays the capital costs by committing new, long term, industrial load to BC Hydro by paying standard industry rates. Amongst government, BC Hydro and industry there is clearly a mutual desire and mutual interest in pursuing upstream electrification. Upstream electrification is challenged by a very low commodity price environment and abundant natural gas supplies. A proponent's choice to electrify requires a long term commitment and must make ongoing economic sense. Without near term incentives or programs to make electricity costs comparable to natural gas, the gap between electricity and natural gas will not be bridged and the opportunity to grow the economy and address GHG emission will be lost. As outlined previously, once a facility is constructed to use natural gas, it is not economically feasible to retrofit and convert to electricity in the future.

**s.17**

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<sup>5</sup> <http://www.pipelinenewsnorth.ca/news/province-unveils-aggressive-plan-to-electrify-b-c-natural-gas-fields-1.3493881>

s.17

- CAPP recommends BC eliminate the PST from industrial power rates as an interim measure until government can address competitiveness more fulsomely through a consultation process on made-in-BC VAT.

s.17

I look forward to a response to these matters raised. I would like to suggest a meeting in the near future to review and seek solutions.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Tim McMillan', with a stylized, cursive script.

Tim McMillan  
President and CEO

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<sup>6</sup> <https://www.canada.ca/content/dam/themes/environment/documents/weather1/20161215-1-en.pdf> page 54.

**Olander, Nina MEM:EX**

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**From:** Considine, Jonathan MEM:EX  
**Sent:** Tuesday, January 24, 2017 1:11 PM  
**To:** Bennett, Bill MEM:EX  
**Cc:** Wallace-Deering, Eric MNGD:EX; Denniston, Tristan M MEM:EX; Grewal, Simrath MEM:EX; Costa, Sarina MNGD:EX  
**Subject:** Updated Briefing Agenda  
**Attachments:** Jan 24 Ministers Briefing Agenda.docx; CLP Implementation 24-1-17 (2).docx; PRES\_BN\_critical\_path\_activities\_20170112.docx

Hi Minister,

Attached is an updated agenda for the Minister/DM/ADM Briefing on Wednesday, as well as two new documents for the Briefing. These materials will be added to your iPad in Wednesday's folder, and attached to the appointment in your calendar.

Thank you,

**Jonathan Considine**

Administrative Assistant to the Hon. Bill Bennett | Ministry of Energy and Mines  
Room 301, Parliament Buildings | Victoria, BC | V8W 9E2 | 250-387-5896

Page 06 to/à Page 07

Withheld pursuant to/removed as

s.12;s.13

## **Agenda**





### **Honourable Bill Bennett Briefing**




**Wednesday, January 25, 2017**

**2:30pm-4:00 pm**

### **PVO and 617 Government St. Telepresence Sites**

**Attendees:** Elaine McKnight  
Peter Robb  
Les MacLaren  
Fraser Marshall  
Andrew Rollo/Amy Avila – Item 1  
Dan Green – Item 5  
Nathaniel Amann-Blake- Item 10

<b>Item #</b>	<b>AGENDA ITEM</b>	<b>LEAD</b>	<b>MATERIAL</b>
1	Ajax Update	Andrew/Amy	 98377 BN MO MMRD Ajax Goose Lake Roa
2	Amendments to Greenhouse Gas Reduction Regulation	Les	 BN MO EAED GGRR Amendments RNG an
3	Amendments to Direction 5 to the BCUC	Les	 BN MO EAED Proposed Direction to
4	Port Alice Gas Ministerial Exemption Order	Les	 BN MO EAED Proposed BCUC draft
5	ICE Fund Leveraging of Federal Clean Technology Investment	Les	Verbal
6	Upstream Electrification Regulation	Les	Verbal

7	<i>Climate Leadership Plan Implementation</i>	<i>Les</i>	 CLP Implementation 24-1-17 (2).docx
8	<i>Peace Region Electricity Supply</i>	<i>Les</i>	 PRES_BN_critical_path_activities_2017011
9	<i>TNG Update</i>	<i>Peter</i>	 TNG.docx
10	<i>Reclamation Securities</i>	<i>Nathaniel</i>	<i>Verbal</i>

## BRIEFING NOTE: PRES UPCOMING CRITICAL PATH ACTIVITIES

### INTRODUCTION

This Briefing Note provides an explanation of critical path activities that are planned on the Peace Region Electricity Supply (PRES) project between January 2017 and March 2018, and the implications if they are delayed.

### PROJECT NEED AND REGULATORY BACKGROUND

The size and timing of load growth in the Peace region is uncertain and will be influenced by the electrification incentives being offered to upstream gas customers. Pending improved clarity on how load is expected to materialize, PRES is being scheduled to maintain the earliest in-service date, which is summer 2020. There is little float in the current schedule.

Since mid-2015 the Provincial Government has contemplated exempting PRES from BCUC review.  
**s.13**

### CURRENT PROJECT ACTIVITIES

The project passed through the end of Feasibility gate in December 2016. In February 2017 the project team will seek approval of the preferred alternative from the Board of Directors and Definition funding approval from the BC Hydro CEO.

The following activities are ongoing: Preliminary design; Environmental Overview Assessment; preparation of Crown tenure applications; and First Nations engagement. Documents are also being prepared for select tenders for the centre line survey (estimated cost **s.17**) and forestry engineering services (estimated cost **s.17**) and **s.17** (estimated cost **s.17**). These are scheduled to be issued by the end of January and awarded by the end of February, immediately after Definition funding approval.

## BRIEFING NOTE: PRES UPCOMING CRITICAL PATH ACTIVITIES

### CRITICAL PATH ACTIVITIES

There are two streams of activities that are on the critical or near-critical path between January 2017 and March 2018. During that time, the project will also go through the end of Definition gate in December 2017 and to the Board of Directors for full funding approval in February 2018.

#### Path A – Permitting

Activity	Start Date	End Date
Prepare Environmental Overview Assessment (EOA)	Oct 2016	Jan 2017
First Nations review of EOA	Feb 2017	May 2017
Update EOA	Apr 2017	June 2017
First Nations issue Traditional Use Studies	Jan 2017	June 2017
Update transmission line route if required	Mar 2017	June 2017
Finalize and submit Crown Tenure applications	June 2017	July 2017
MFLNRO review and issue Licence of Occupation and Licence to Cut	July 2017	May 2018
Start construction	June 2018	

#### Path B – Design and Procurement

Activity	Start Date	End Date
Prepare procurement documents for centre line survey and forestry engineering services	Dec 2016	Jan 2017
Notify critical stakeholders of the project and the centre line survey	Jan 2017	Jan 2017
Procurement processes for centre line survey, brushing and forestry engineering	End of Jan 2017	Beginning of Mar 2017
Contract award for centre line survey, brushing and forestry engineering	Beginning of March 2017	
Conduct centre line survey	Mar 2017	Jul 2017
Conduct Forestry Engineering	Mar 2017	Dec 2017
Procure Clearing and Access construction contracts, including direct award negotiations	Oct 2017	May 2018
Start Clearing and Access construction	June 2018	

## BRIEFING NOTE: PRES UPCOMING CRITICAL PATH ACTIVITIES

### IMPACT OF DELAYS TO CRITICAL PATH ACTIVITIES

The following are the key impacts of delay to the activities described above.

- Delays to any of the activities would delay the start of construction. Generally these would be like-for-like delays (e.g. one month delay now delays construction start by one month). However, given the high degree of seasonality in field conditions in the Peace region, the impact of a relatively minor delay could create up to one year delay in the In-service Date.
- Any delay to centre line survey would delay forestry engineering, which requires a full snow-free season before clearing and access contracts can be procured. The impact of even a minor delay in the centre line survey would therefore likely be a one year delay to the start of construction. This impact would be difficult to mitigate because appropriate forestry resources will likely get committed to other work in the first quarter of the calendar year. Mitigation efforts would likely transfer risk to the implementation phase, for example by reducing the flexibility in the number and scope of clearing and access construction packages.
- Any delay to critical stakeholder notifications would prevent the project team from sharing design information (such as locations of planned well heads that PRES will have to avoid) and therefore prevent accurate detailed design and cost estimates. It would also hamper the project team's ability to secure required access permissions, accommodate stakeholder interests, and complete the centreline survey, forestry and other field work in summer 2017.
- **s.17**
- Financial impacts:
  - A protracted schedule would increase the project's management and indirect costs, IDC and inflation. A one-year delay is estimated to increase the project cost by **s.17**
  - Deferred spend from F18 to subsequent years

### RECOMMENDATION

The project team requires confirmation of whether they should proceed with the planned work or stop and reschedule the project.

## Olander, Nina MEM:EX

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**From:** Considine, Jonathan MEM:EX  
**Sent:** Wednesday, October 26, 2016 2:02 PM  
**To:** Bennett, Bill MEM:EX  
**Cc:** Wallace-Deering, Eric MNGD:EX; Denniston, Tristan M MEM:EX; Grewal, Simrath MEM:EX; Costa, Sarina MNGD:EX  
**Subject:** Approval for BCH CLP Rates ltr Bennett to Bennett  
**Attachments:** 97812 MO MEM EAED B. Bennett - BCH Rates Plan.pdf

Hi Minister,

Attached for your review and approval is a letter **to Mr. Brad Bennett**, Chair, BC Hydro, regarding the Climate Leadership Plan (CLP) and the 10 Year BCH Rates Plan.

This document will be added to your iPad, located in the "Approvals" folder. Please confirm if you approve of this letter and we will attach your e-signature for mail out.

Thank you,

**Jonathan Considine**

Administrative Assistant to the Hon. Bill Bennett | Ministry of Energy and Mines  
Room 301, Parliament Buildings | Victoria, BC | V8W 9E2 | 250-387-5896



Ref.: 97812

Mr. Brad Bennett  
Chair  
BC Hydro  
18<sup>th</sup> floor, 333 Dunsmuir Street  
Vancouver, BC V6B 5R3

Dear Mr. Bennett:

British Columbia's Climate Leadership Plan (CLP), announced in August 2016, recognized the role BC Hydro must play in reaching the Province's greenhouse gas (GHG) emissions reduction targets, committing to 100 percent new clean energy supply and expanding the mandate of BC Hydro's conservation and energy management programs to include initiatives that reduce GHG emissions.

The Province recognizes that there are additional actions that BC Hydro can take to support the CLP to encourage electrification, reduce emissions, and enable the development of a new, low-carbon economy. However, in some cases, these actions could create additional costs for ratepayers and prevent BC Hydro from achieving its 10 Year Rates Plan (Rates Plan).

Since launching the Rates Plan in 2013, both the Province and BC Hydro have taken action to keep the Rates Plan on track. The Province has directed the BC Utilities Commission (BCUC) with respect to rates for the first 5 years of the Rates Plan, decoupled net income from assets in service, removed the Tier 3 water rental rate, and, more recently, established lower dividends and net income targets than initially anticipated in the Rates Plan and as provided for under existing regulations.

For its part, I understand that BC Hydro has undertaken extensive cost reduction actions to address lower than anticipated revenues arising from low commodity prices, industrial plant closures, delayed revenues from liquefied natural gas (LNG) facility operations, and warmer-than-expected winter heating seasons in order to keep the Rates Plan on track. These actions have included reducing growth in operating costs, hedging interest rates, restructuring demand-side management programming, adjusting capital additions and dismantling costs, and reducing power procurement and energy supply contract renewal costs.

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**Ministry of  
Energy and Mines and  
Minister Responsible  
for Core Review**

**Office of the Minister**

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As a result of the above actions, the Fiscal 2017-19 Revenue Requirements Application, currently before the BCUC, sets out rate increases consistent with the Rates Plan.

Concurrent with the Revenue Requirements process, the Province, with BC Hydro's support, has announced and is considering a number of actions to reduce GHG emissions, including those actions set out in the CLP. Some of these actions, such as reorienting demand-side management to promote efficient electrification that reduces GHG emissions, are expected to be revenue positive compared to current Rates Plan assumptions. Others, such as the new Clean Compression Rate for LNG facilities that choose clean grid power for liquefaction, could reduce BC Hydro's revenues from what has been assumed in the Rates Plan.

The Province remains committed to the Rates Plan. To the extent that the net impact of BC Hydro participating in activities that promote the CLP may result in a decrease in revenues or increase in costs that negatively impact the Rates Plan. The Province is committed to take further actions, such as those noted above, as required to ensure that Rates Plan targets continue to be met.

Sincerely,

Bill Bennett  
Minister

cc: Honourable Christy Clark  
Premier

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Minister of Finance

Ms. Elaine McKnight  
Deputy Minister  
Ministry of Energy and Mines

Ms. Athana Mentzelopoulos  
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