

**MINISTRY OF ENVIRONMENT
INFORMATION NOTE**

Date: March 2, 2015

File:

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PREPARED FOR: Honourable Mary Polak, Minister of Environment.

ISSUE: Continuation of a dialogue with interested stakeholders and Okanagan Nation regarding land management interests in the south Okanagan

BACKGROUND:

On November 21, 2014, meetings were held between Minister Polak, MLA Larson, Ministry of Environment staff and three key groups (the Okanagan Nation Alliance (ONA); those opposed to the proposed national park reserve (NPR); and those supporting the NPR) to discuss land management interests in the south Okanagan area of British Columbia.

Coming out of these meetings, there was a commitment made to continue the dialogue in the spring of 2015, timing to be linked to a break in the spring legislative session. With the session now underway, it will be important that decisions be made and planning undertaken with respect to a follow-up meeting.

In order to inform the discussion, a preliminary analysis has been undertaken of the various land use interests expressed at the November 21 meeting and as identified through various planning documents related to land use in the South Okanagan. This analysis is presented in relation to the 2010 Draft Park Concept (Appendix 1).

DISCUSSION:

The November 2014 meetings were conducted as an open table discussion focused on the interests of each group in this area. In most, if not all cases, the interests surfaced were interests that had been raised previously through the NPR feasibility study process and other area planning processes. These interests are detailed in Appendix 2 and Appendix 3.

In general, all groups expressed an interest in seeing appropriate levels of protection along with economic development focused on growing tourism opportunities. The pro-side remains convinced that the best route to protecting rare species and ecosystems while growing tourism is through the designation of the proposed NPR. The opposed side want government to implement the remaining areas of the Okanagan-Shuswap Land and Resource Management Plan (LRMP) that are currently suspended due to the NPR feasibility study.

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Addressing First Nations Interests:

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s.13,s.16 Under existing provincial parks legislation, most current activities could continue, while preventing further land disposition for development. Existing mineral and forestry tenures would have to be expropriated with compensation likely required.

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Through their NPR feasibility study, the Sylix have expressed their support for protecting the lands in both the Northern Component and the Southern Okanagan Grasslands Component of the 2010 Draft Park Concept; however, they also went on record that protection of the proposed lands is “insufficient in promoting the broad Sylix vision to protect cultural and ecological integrity”. s.13,s.16

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Addressing Community Interests

The general community remains divided with respect to the creation of the NPR. Those in support of the NPR proposal cite the enhanced protections for rare and endangered ecosystems, the unique tourism/marketing potential, and the anticipated operation funding that comes with a National Park Reserve. They point to the resources that flow from the federal government, citing the Gulf Islands and Gwaii Haanas national park reserves. Supporters see the NPR as a source of year-round tourism opportunities and economic boosts to smaller communities. Those in opposition raise concerns with the potential loss of commercial land use opportunities and impacts to current tenure holders and potential loss of hunting, fishing and motorized recreation opportunities. Both sides share a desire to see increased tourism.

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Pocket Desert Park concept

The southern Okanagan contains Canada's only "pocket desert," which is home to two of the most endangered ecosystems in Canada – the dry bunchgrass grasslands and open ponderosa pine forests.

This pocket desert is partially protected by the Osoyoos Desert Centre, a 67-acre nature interpretive facility where visitors learn about desert ecology, habitat restoration and conservation of endangered ecosystems in the south Okanagan.s.13,s.16

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General Planning Considerations:
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OPTIONS:
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Appendix 1: 2010 Draft Park Concept

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Appendix 3: Community Interests

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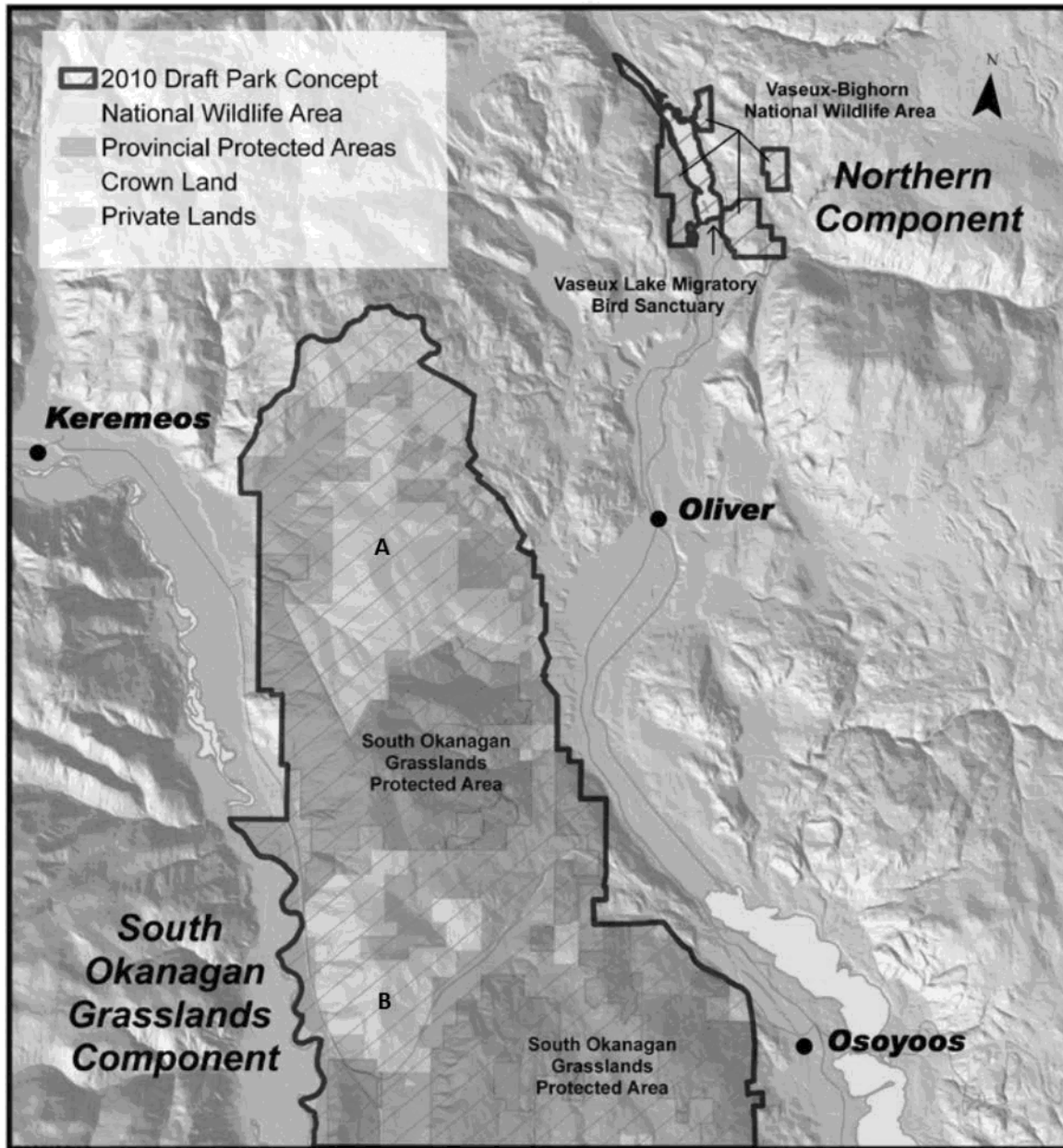
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Appendix 1: 2010 Draft Park Concept



Appendix 3: Community Interests

From Nov 21 meeting:

Pro-NPR

- Protect rare and endangered species and grassland ecosystems, and generally increase overall environmental stewardship.
- Maintain and enhance the south Okanagan “way of life” (the reasons people chose to live there) including the outdoor recreation opportunities
- Increase opportunities for education about and general connectedness to nature
- Manage growth
- Securing government (federal) funding for the area
- Diversify and enhance tourism including full season tourism opportunities (e.g. agrotourism) – place high value on the draw that comes from National Park brand
- Apply provisions of ecological management such as burning when possible.
- Protect important cultural areas (FN and European history).
- Create more employment.
- Promote the uniqueness and specialness of the area on a larger scale

Anti-NPR

- Ensure the maintenance of businesses such as committing to continued land tenures and park use permits in order to create business certainty (e.g. ranching/helicopter training).
- Revisit and endorse the commitments from the LRMP.
- Concern over loss of fishing and hunting opportunities
- Maintain opportunities for motorized recreation
- Managing for tourism
- Promoting BC Parks

From “Parks Canada Feasibility Study Overview”

- Numerous mining claims (55 mineral claims/22 pre-reserve) in the Southern Component of proposed NPR:
 - Concerns with loss of access to mineral deposits and approach to compensation
- 2 helicopter operators with at least 15 landing sites under 2 park use permits – concern over additional costs and potential loss of revenue at Penticton airport if not continued
- Removal of 4,154 ha of operable timber or 5,525 m³/year from the timber harvesting land base
- Loss of fishing and hunting and guide outfitter opportunities currently allowed in provincial parks and on multi-use Crown land:
 - Average hunting use approximately 2,000 hunter days
 - 4 fishing lakes
 - Guide outfitter territory with 34% overlap with proposed NPR area
- Local concern over user fees, limits to use, and loss of existing opportunities.
- Tourism operators interested in new tenure opportunities, shared marketing and increased visitor numbers
- Loss of other commercial land use opportunities (grazing/agriculture)
- Current concerns with the impacts of off road vehicle use on Oliver Mountain

MINISTRY OF ENVIRONMENT INFORMATION NOTE

March 11, 2012
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Prepared for: Honourable Mary Polak, Minister of Environment

What: Public posting of Intentions Paper for the Reporting Regulation under the *Greenhouse Gas Industrial Reporting & Control Act* (prefer by March 19)

BACKGROUND:

The *Greenhouse Gas Industrial Reporting and Control Act* (the Act) received Royal Assent on November 27, 2014. The main intent of the Act is to enable performance standards to be set for industrial facilities or sectors by listing them within a Schedule to the Act. To uphold the Province's commitments to having the cleanest liquefied natural gas (LNG) operations in the world, the Act includes a GHG emissions intensity benchmark for LNG facilities of 0.16 carbon dioxide equivalent tonnes for each tonne of liquefied natural gas produced (tCO₂e/tLNG) listed in the Schedule.

The Climate Action Secretariat, Ministry of Environment (the Ministry) is in the process of developing three proposed regulations under the Act: Reporting, Offsets and Compliance. Industrial operations in BC have been reporting GHG emissions since 2010 under the Reporting Regulation of the *Greenhouse Gas Reduction (Cap and Trade) Act*. This current Reporting Regulation sets out the requirements for the reporting of greenhouse gas emissions from BC facilities emitting 10,000 tonnes or more of CO₂e emissions per year. This regulation was aligned to the industrial reporting requirements of the US Environmental Protection Agency and the member jurisdictions of the Western Climate Initiative. GHG reporting will transition to the new regulation under the Act and the *Cap and Trade Act* will be repealed.

The methodologies and procedures of the existing Reporting Regulation are proposed to be largely maintained in the new Reporting Regulation with the addition of requirements addressing the liquefied natural gas sector and minor improvements based on the Ministry's experience since 2010. It is anticipated that this new regulation will come into force for the 2016 reporting year.

DISCUSSION:

CAS would ideally post the intentions paper on the proposed new Reporting Regulation for public comment on March 19, in keeping with timelines discussed with internal and external stakeholders. The purpose of posting this paper is to communicate Ministry intentions for this regulation and to seek comments from stakeholders, First Nations and the general public.

Comments on the proposed Reporting Regulation intentions paper will be solicited for the period March 19 to April 20, 2015. The intentions paper describes the way in which

stakeholders, First Nations and the public can provide feedback on the proposed regulatory approach prior to drafting. CAS will also be hosting a webinar shortly after the intentions paper release to respond to any questions on the paper and consultation process.

CONCLUSION:

BC continues to move forward with our commitment to having the cleanest LNG operations in the world. The next step is to publicly consult and receive feedback on a proposed new Reporting Regulation that maintains the rules by which industrial greenhouse gas emissions must be reported and builds in new requirements that will cover the LNG sector.

Attachments: 276934Reporting Regulation Intentions Paper

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1. Introduction

The *Greenhouse Gas Industrial Reporting and Control Act* (the Act) received Royal Assent on November 27, 2014. The main intent of the Act is to enable performance standards to be set for industrial facilities or sectors by listing them in the Schedule to the Act. The Act also streamlines several aspects of existing greenhouse gas (GHG) legislation and regulations into a single legislative and regulatory system, including:

- *Greenhouse Gas Reduction (Cap and Trade) Act* (to be repealed)
- *Greenhouse Gas Reduction Targets Act* , Reporting Regulation (to be repealed and replaced by a new Reporting Regulation under the *Greenhouse Gas Industrial Reporting and Control Act*)
- *Greenhouse Gas Reduction Targets Act* , Offsets regulation (to be repealed and replaced by a new Offsets regulation under the *Greenhouse Gas Industrial Reporting and Control Act*)
- *Environmental Management Act* section 6.1 (repealed and replaced by the requirement for coal fired electricity generation facilities in the Schedule to the *Greenhouse Gas Industrial Reporting and Control Act*)

Liquefied natural gas (LNG) operations are regulated under the new Act and an annual greenhouse gas emissions intensity limit of 0.16 carbon dioxide equivalent tonnes per tonne of liquefied natural gas produced (tCO₂e/tLNG) has been listed in the Schedule.

The Reporting Regulation, a regulation respecting the annual reporting of industrial greenhouse gas emissions, existed under the *Greenhouse Gas Reduction (Cap and Trade) Act* and was aligned to the industrial reporting requirements of the US Environmental Protection Agency and the member jurisdictions of the Western Climate Initiative. The methodologies and procedures of the existing Reporting Regulation are proposed to be largely maintained in the new Reporting Regulation under *Greenhouse Gas Industrial Reporting and Control Act* with the addition of new requirements addressing the liquefied natural gas sector.

In addition to the proposed Reporting Regulation, the Climate Action Secretariat in the Ministry of Environment (the Ministry) is in the process of developing proposed Offset and Compliance regulations under the Act to include the provisions respecting the creation and management of greenhouse gas offsets, the assessment of compliance and penalties for non-compliance with the Act and its regulations, the registry, “earned credits”, and the price for a “funded unit”. Intentions papers will follow in 2015 on these regulations.

The process for establishing this regulation on the annual reporting of industrial greenhouse gas emissions consists of five phases:

1. Scoping – Ministry assessment of requirements of the legislation and identification of implementation options.
2. Intentions Paper – identifying the proposed approach for annual reporting of industrial greenhouse gas emissions.
3. Consultation – with affected stakeholders and the general public.

4. Drafting – preparation of legal language for consideration by the Minister and Lieutenant Governor-in-Council.
5. Implementation – informing Ministry staff and external stakeholders, and developing guidelines and/or best management practices.

The purpose of this paper is to communicate Ministry intentions, and to seek comments from stakeholders and the general public on the proposed regulation.

This consultation paper provides a summary of government goals and objectives for the proposed regulation and its intended purpose. This is followed by a discussion of the Ministry's intentions regarding the contents of the proposed regulation. The paper also describes the way in which stakeholders, First Nations and the public can provide feedback on the proposed regulation prior to it being drafted and implemented.

Though the intentions paper outlines particular approaches for achieving the stated regulatory objectives, the Ministry welcomes feedback on all aspects of the proposed regulation for consideration. It is anticipated that this regulation will come into force for the 2016 reporting year.

Information on the proposed regulation, and the response form, can be accessed at this website:
<http://www2.gov.bc.ca/gov/topic.page?id=60E1E7810BC145C6B6FC00EE31F41EC5>

2. Government Goals and Objectives

The Province has two over-arching goals in the new Reporting Regulation:

- 1) Ensuring BC has the cleanest liquefied natural gas operations in the world
 - the benchmark established in the *Greenhouse Gas Industrial Reporting and Control Act* relies on robust and timely greenhouse gas emissions and LNG production reporting by the LNG sector.
- 2) Robust industrial greenhouse gas emissions information to inform climate policy in British Columbia.
 - Understanding where emissions come from enables companies to take action at their operations and save money on carbon taxes and energy costs.
 - Understanding the industries and activities that generate greenhouse gas emissions allows government to use regulations and economic tools to incentivize reductions in critical economic sectors and better understand the costs of low carbon transition.

3. Background Information

3.1 Context

The province's Climate Action Plan describes the legislative, regulatory and program initiatives intended to achieve our legislated greenhouse gas emission reduction commitments. A major component of the plan is to reduce emissions from industrial facilities and other large emitters. The *Cap and Trade Act* provided the legislative authority to regulate emissions from large industrial emitters, including provisions for establishing reporting, offset and compliance

requirements under regulation. These requirements are now being instituted under the new *Act* covering industrial greenhouse gas reporting, offsets and emissions limits.

At the federal level, Environment Canada has stated that it intends to implement sectoral “intensity-based” benchmarks under the *Canadian Environmental Protection Act*. Recognizing regional differences and existing efforts, Environment Canada has indicated a willingness to enter into equivalency agreements with provinces/territories whose programs have similarly (or more) stringent outcomes. The programs in BC’s Climate Action Plan as well as the new *Act* will help the province to demonstrate that its regulations will meet or exceed emerging federally mandated targets should BC pursue equivalency.

The Reporting Regulation is based on rigorous and internationally recognized science from the Intergovernmental Panel on Climate Change and the United Nations Framework Convention on Climate Change. The thresholds for reporting remain at current levels: all industrial emitters in the Province over 10,000 carbon dioxide equivalent tonnes per year (tCO₂e) report their emissions annually according to prescribed methodologies consistent with the Western Climate Initiative provinces and States and the United States environmental Protection Agency; those industrial emitters over 25,000 tonnes CO₂e per year must have their emissions verified by an accredited third party annually prior to submitting their report.

The Ministry intends to include items in the Reporting Regulation to address particular characteristics of potential liquefied natural gas operations including:

- The means by which to calculate liquefied natural gas-related emissions;
- LNG production; and
- An electricity grid greenhouse gas emissions factor for liquefied natural gas operations.

These are the main topics for discussion and comment in this consultation paper as the existing provisions contained in the existing Reporting Regulation will remain as the base of industrial reporting in BC. The paper will also summarize minor changes to reflect stakeholder feedback and the Ministry’s experiences following the Reporting Regulation’s approval in November 2009.

3.2 Design principles for emissions reporting

In developing the Reporting Regulation, the Ministry is using the following design principles (in common with the underpinnings of most mandatory reporting systems):

- Compatibility – the reporting system (including accuracy of quantification methods, timing of reports, level of confidentiality, source categories covered, and level of verification) require consistency with international standards and transparency for other legislative requirements such as the provincial targets. To prepare sectors for potential future regulation, the reporting requirements are also intended to be comparable to other leading Canadian jurisdictions and meet the requirements of the federal government;
- Prioritization – industrial greenhouse gas reporting and verification effort is focused on larger emitters or those with large cumulative emissions, and those listed in the *Schedule*;

- Prescribed quantification methods – standard quantification approaches set consistent requirements across similar facilities such that all are treated in the same manner and their emissions reports are comparable;
- Risk-based third party verification – ensures the accuracy of reported emissions and reduces cost for low risk operations; and
- Access to information – the Province is committed to open government through the publication of industrial greenhouse gas emissions data.

4. Definitions

The ministry includes definitions in the regulation to specify application and interpretation of the regulation. They build on Western Climate Initiative and Environment Canada terms and definitions, supplemented with province-specific definitions as required for BC circumstances or regulatory needs. Definitions fall under the following general categories:

- Greenhouse gas, related measurement units, and conversion factors (i.e., carbon dioxide equivalence);
- Industrial operations, individual facility, and related greenhouse gas emissions and production definitions (e.g., points of regulation, types of reporting operations, emission source categories, emission types and fuel types, feed stocks);
- Industry and facility-specific terms (e.g., lime kiln, calcination, Söderberg process); and
- Reporting and compliance terms (e.g., quality control, verification, audit and compliance).

The definitions will largely be the same as in the existing regulation's Section 1 as these definitions are believed to be clear and have been effective to date. In order to regulate the potential new liquefied natural gas sector, a liquefied natural gas operation definition and related liquefied natural gas production definition will be included. Some minor modifications may be made in order to ensure that all definitions are consistent with the new *Act*.

4.1 Liquefied Natural Gas Operation

The *Greenhouse Gas Industrial Reporting and Control Act* (The *Act*) includes a *Schedule of Regulated Operations and Emission Limits* with an annual limit of greenhouse gas emissions for Liquefied Natural Gas Operations of 0.16 carbon dioxide equivalent tonnes per tonne of LNG produced (0.16 tCO₂e/tLNG). A clear description of the greenhouse gas emission sources included in the scope of this operation type is important to provide certainty for future operators.

The *Liquefied Natural Gas Income Tax Act* (Part 1, Sections 7 and 8) includes a definition of a liquefied natural gas facility that forms a reasonable foundation for the definition of a Liquefied Natural Gas Operation for the purposes of the *Greenhouse Gas Industrial Reporting & Control Act*.

The sources of greenhouse gas emissions attributable to a liquefied natural gas operation are from all activities and greenhouse gas emissions sources between the point in the natural gas supply where custody transfers to the liquefaction facility operator (usually the feedstock pipeline inlet custody transfer point on the side of the liquefied natural gas operation including

the metering point for the CO₂ content in the feedstock gas - see Figure 1-M1) and the point where liquefied natural gas is transferred to a vessel for transport to customer (usually the loading transfer point or custody meter- see figure 1-M6 and M8) include:

- Carbon dioxide removed from the natural gas supply after receipt at the Operation and vented to the atmosphere;
- Stationary combustion of fossil fuels at the Operation or attributable to the Operation as defined in the *Act*, including emissions from electricity generation onsite;
- Greenhouse gases associated with electricity generated offsite and consumed by the operation;
- Products of combustion from flaring and incineration; and
- Fugitive or vented emissions of carbon dioxide and methane from onsite infrastructure, piping, and other equipment.

These sources of greenhouse gas emissions are consistent with emissions sources required to be reported from other similar industrial facilities in the natural gas sector in British Columbia. Mobile equipment will not be included in the definition of a liquefied natural gas operation.

Rationale

British Columbia committed to have the cleanest liquefied natural gas facilities in the world. The Province surveyed leading liquefied natural gas facilities worldwide to determine that a 0.16 tCO₂e/tLNG emissions intensity limit would have a clear and lasting justification to this “cleanest liquefied natural gas facility” distinction.

The comparison of global leading facilities greenhouse gas emissions intensities covered all greenhouse gas emissions from the point where natural gas enters the plant, to where it is loaded onto a ship, train or other transportation system for delivery to market.

To ensure that facilities that achieve the emissions intensity limit have a credible claim to be the world’s cleanest liquefied natural gas facilities, BC must ensure consistency between the sources of greenhouse gas emissions used to design the benchmark and those covered by the Reporting Regulation.

5. Reporting Requirements

5.1. Addition of job title of operation representative to registration requirements

The current Reporting Regulation does not require the reporting of the job title of the operation representative. However, the Ministry has identified that many reporting operations employ consultants regularly for this purpose.

Ministry’s intention is to require reporting operations to report the job title of the operation representative, as part of the registration requirements outlined in section 9(3) of the Reporting Regulation.

Rationale

This addition will aid in the Ministry's due diligence and ensure that the operation representative is an officer of the company.

5.2 First Year of Regulation

Industrial operations in British Columbia will continue to report greenhouse gas emissions on an annual basis beginning January 1 and ending December 31. Reporting begins the first year that an operation exceeds 10,000t CO₂e. As LNG Operations have an associated greenhouse gas intensity benchmark obligation, the Ministry intends to standardize the point an LNG operation's obligations under the Act begin, to avoid uncertainty for operators as to when their facility must begin monitoring and reporting emissions. The Ministry is considering a date based on a set period such as three months post receipt by an LNG operator of their Leave to Operate from the British Columbia Oil and Gas Commission. The Ministry is in consultation with the relevant Ministries and agencies regarding the specific date or criteria.

Section 11 of the Liquefied Natural Gas Facility Permit Application and Operations *Manual* (<http://www.bcogc.ca/node/11268/download>) states:

- *Before commissioning and operation of the liquefied natural gas facility can begin, the permit holder must submit, in writing, to the Deputy Commissioner of Pipelines and Facilities, notice of their intent to begin commissioning the liquefied natural gas facility by introducing hydrocarbons, followed by the beginning of operations. Further testing and cooling of the liquefied natural gas tanks will take place before liquefied natural gas will be produced on a commercial scale.*

Rationale:

The Ministry is interested in this approach because it is a clear and uniform point in the project development cycle that is common to all LNG facilities, meaning it is administratively efficient and simple to demonstrate for verification.

5.3 Revised 'de minimis' approach so it applies to each individual facility within a linear facilities operation

Section 13(4) of the current Reporting Regulation allows for the use of replacement methods for estimating greenhouse gas emissions provided that the total amount of emissions quantified using these methods does not exceed the lower of 3% or 20,000 tCO₂e of the emission associated with the reporting operation. In the case of a linear facilities operation comprised of many smaller facilities, this may lead to a significant fraction of an individual facility's emission being quantified via replacement methods since the 'de minimis' threshold inappropriately applies to the linear facility operation as opposed to the sub-facility.

The Ministry's intention is to not replicate this approach in the new Reporting Regulation such that the 'de minimis' approach for using a replacement methodology in a linear facility operation is applied to each individual facility within it with emissions of 10,000 tCO₂e or above.

Rationale

This approach intends to correct the ‘de minimis’ approach so that it is applied to each individual facility within a linear facilities operation, consistent with other operations, as it was originally intended.

5.4 Requirement to report changes in management and control of reporting operations

The current Reporting Regulation does not require reporting operations to report/notify of changes in management and control, for example of sales, acquisitions, closures of facilities.

The Ministry intends to include a requirement that reporting operations report the following when submitting their annual emissions report:

- The sale of a facility they manage or control;
- The acquisition of a facility they manage or control;
- The closure of a facility they manage or control;
- The opening of a facility they (would) manage or control; and

In each case the reporting operation would report the facility’s administrative details as applicable similar to those listed in section 12(1.1) of the current regulation, and also, if sale or acquisition, the other company’s name.

Rationale

It is difficult and time consuming for program staff to track the year to year industrial emission sources and their attribution in BC. There is some voluntary reporting of management and control changes through an already-existing module in the Single Window Greenhouse Gas reporting system used by reporting operations for reporting. Adding this requirement in the new Reported Regulation will formalize this practice and ensure costly auditing and verification activities for industry are avoided.

6. Quantification Methods to be used in Reporting

6.1 Annual Liquefied Natural Gas Production

The liquefied natural gas greenhouse gas emissions intensity benchmark requires the reporting and verification of an Operation’s liquefied natural gas production annually. The Ministry, in communication with the Ministry of Finance, is anticipating the requirements for quantification of annual production of liquefied natural gas will be aligned between the *Liquefied Natural Gas Income Tax Act* and the *Greenhouse Gas Industrial Reporting and Control Act* to reduce monitoring and reporting burden for the liquefied natural gas industry and ensure consistency.

A liquefied natural gas operation will measure liquefied natural gas throughput (in cubic metres at reference conditions) at the point of sale, downstream of the cryogenic storage tank (*Figure 1, M8*) for each calendar year. Liquefied natural gas in storage (*Figure 1, M7*) will be measured on the first and last day of the calendar year and the difference between the January 1 and December 31 measurements will be added to the total annual throughput for the same calendar year. The Operation would report this combined amount as total annual production of liquefied natural gas,

and use as the denominator in the calculation of the greenhouse gas emissions benchmark for the Operation.

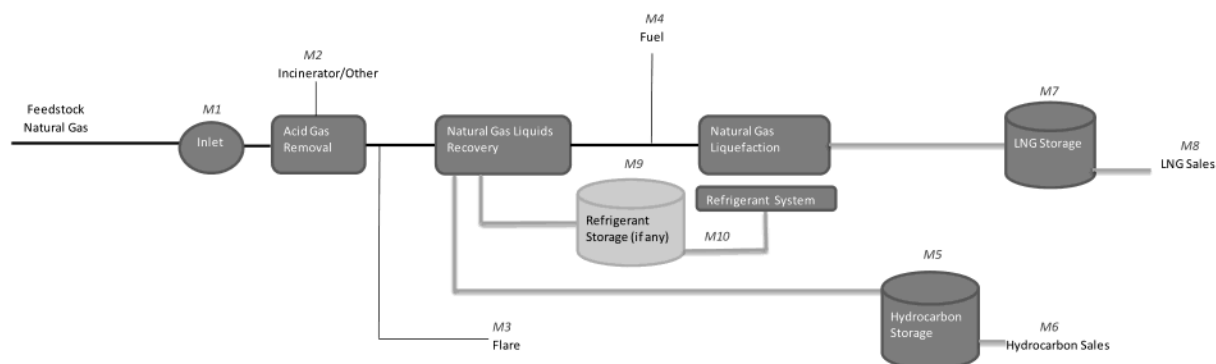


Figure 1. Measurement at liquefied natural gas operations

Liquefied natural gas production will be reported in metric tonnes of liquefied natural gas. The Western Climate Initiative (WCI.363 sections q and r) “Final Essential Requirements of Mandatory Reporting”, available at:

http://www2.gov.bc.ca/gov/DownloadAsset?assetId=7269E09CE89D4EAE8A5D083D6E314767&filename=unofficial_2013-wci-360-petroleum-ng-production-ng-processing-redline.pdf

provides the methodology required for the conversion of cubic meters to metric tonnes and other required conversions for the accurate reporting of associated greenhouse gas emissions.

Rationale

Section 3(1)(b) of the *Greenhouse Gas Industrial Reporting and Control Act* authorizes the collection of production data for those facilities required to meet a benchmark. This addition enables the calculation of the operation’s emissions intensity limit as that standard depends on the mass in tonnes of liquefied natural gas produced.

6.2 CO₂ in feedstock gas

The concentration of CO₂ in the feedstock gas for liquefied natural gas operations is not expected to be greater than the current pipeline specification limit of 2%. The CO₂ removed during processing is likely to be vented to the atmosphere. Operations are required to monitor the volume of CO₂ vented, in accordance with the prescribed methodology WCI.360 in the existing Reporting Regulation, including calculation based on CO₂ concentration reports received from a pipeline service provider. Emissions are commonly calculated based on the volume of raw gas purchased, multiplied by the molar fraction of CO₂ in that gas.

Rationale

New liquefied natural gas operations will link to existing and new pipelines which have real-time measurements of gas composition. The use of this real CO₂ data is consistent with an already in-place methodology used by other industrial operations in BC

6.3 Electricity Generated Off-Site

Operations' emissions from electricity generated on-site continue to be reported using WCI.40 through WCI.46 quantification methodologies:
(<http://www2.gov.bc.ca/gov/DownloadAsset?assetId=D720E3126B0C4DCDA05F42A0EA0AA&filename=final-essential-requirements-of-mandatory-reporting-dec-17-2010.pdf>).

For LNG Operations the Ministry intends to include greenhouse gas emissions resulting from purchased or bartered electricity quantified and reported as per Schedule D, Section 4 and Schedule A, Table 1, row 9 of the current Reporting Regulation.

The Ministry intends to establish a standard factor for electricity purchased from BC Hydrobased on the average greenhouse gas intensity of BC's electricity grid calculated on an annual basis and published on the Ministry's website by October 31st of each year. The calculation will incorporate electricity generation in BC and electricity imported into BC. The intensity will be calculated on a three year rolling average to smooth the effect of variation in annual water inflow and actual import amounts, without discounting any actual greenhouse gas emissions.

$$\text{Utility GHG system intensity} = \frac{(\text{GHG}_{\text{generation}} + \text{GHG}_{\text{imported}})}{(\text{GWh}_{\text{generation}} + \text{GWh}_{\text{imported}})}$$

Where:

$\text{GHG}_{\text{generation}}$ is the stationary combustion greenhouse gas emissions attributable to electricity generation supplied to the electric utility on the integrated BC grid from facilities located in British Columbia, which are owned by or contracted to supply electricity to the electric utility, quantified and reported pursuant to the Reporting Regulation in metric tonnes of CO₂e.

$\text{GHG}_{\text{imported}}$ is the stationary combustion greenhouse gas emissions attributable to electricity imported into British Columbia for the electric utility, quantified and reported pursuant to the Reporting Regulation in metric tonnes of CO₂e.

$\text{GWh}_{\text{generation}}$ is the electricity supplied to the electric utility and the integrated BC grid from facilities located in British Columbia that are owned by or contracted to supply electricity to the electric utility.

$\text{GWh}_{\text{imported}}$ is the electricity imported into British Columbia for the electric utility, quantified and reported pursuant to the Reporting Regulation.

Sample calculation based on representative annual data:

$$\text{GWh}_{\text{generation}} = 55,000 \text{ GWh} \quad \text{GHG}_{\text{generation}} = 1,000,000 \text{ tCO}_2\text{e}$$

$$\text{GWh}_{\text{imported}} = 10,000 \text{ GWh} \quad \text{GHG}_{\text{imported}} = 950,000 \text{ tCO}_2\text{e}$$

$$\text{GHG intensity} = \frac{(1,000,000 + 950,000)}{(55,000 + 10,000)} = 30 \text{ tCO}_2\text{e/GWh}$$

If a facility

- i. reports its greenhouse gas emission under the Reporting Regulation, but does not quantify its stationary greenhouse gas emissions attributable to electricity generation supplied to the electric utility on the integrated BC grid; or
- ii. is located in BC and does not quantify and/or report its stationary greenhouse gas emissions attributable to electricity generation supplied to the electric utility on the integrated BC grid pursuant to the Reporting Regulation; then
- iii. such a facility shall quantify and report its stationary combustion greenhouse gas emissions attributable to electricity generation supplied to the electric utility on the BC grid directly to the electric utility in such a manner reasonably acceptable to the electric utility and that accurately reflects the stationary combustion greenhouse gas emissions that are directly associated with electricity generation supplied to the electric utility on the BC grid.

Should a facility not report their stationary combustion greenhouse gas emissions to the electric utility in such a manner, then the electric utility may prescribe the stationary combustion greenhouse gas emissions attributable to that facility in a manner acceptable to the Ministry of Environment to support the timely and reasonable calculation of the annual electricity emissions intensity.

Rationale

Liquefied natural gas operations should report emissions from powering their facilities comprehensively and consistently in order to maintain the integrity of the benchmark. Emissions from on-site sources and emissions from off-site electricity generation will be included. Voluntary users of the electricity intensity of BC grid supplied electricity may consistently and reliably calculate their associated greenhouse gas emissions.

7. Verification

7.1 Verification Deadline

The deadline for receipt of verified emissions reports will be similar to Part 4 of the existing regulation. Facilities reporting over 25 000 tonnes of greenhouse gas emissions in any given year excluding CO₂ from combustion of biomass will continue to obtain third party independent verification for their emissions reports. The existing regulation was amended in 2014 to change the verification deadline to May 31 of the year in which the emissions report is due.

The existing regulation requires that verifiers be accredited by a recognized accreditation body, such as the Standards Council of Canada or the American National Standards Institute. The same verification body would not be able to verify reporting data at a given company's facilities for longer than a six-year time period.

7.2 Requirements for verification site visits

Section 23(3) of the current Reporting Regulation requires verification site visits for each reporting period (every year).

The Ministry's intention is to:

- 1) Allow for verification site visits once every two reporting periods, provided:
 - there are no significant facility changes as determined to the satisfaction of the verification body, and
 - the last two verification statements are positive without qualifications; and
- 2) Enable a Verification Body to require submission of acceptable photographic and other direct evidence in support of (1) above.

Rationale

Based on accumulated experience and feedback from industry and verification bodies, there is sufficient evidence that this requirement may contribute to significant cost and effort for no material gain in accuracy or completeness.

8. General requirements

This section is intended to be similar to Part 5 of the existing regulation, which covers record retention, publication of information, inspections and appeals.

8.1. Introducing a regular process for quantification methods review and update if needed

Currently the Greenhouse Gas emissions quantification methods are included in the Reporting Regulation by reference. The methods are the ones adopted by the Western Climate Initiative and published on their website. The methods are updated in an ad hoc fashion as the need arises, initiated by the province. While frequent updates were required initially, the current version of the methods has been stable for a few years and no major updates or changes are anticipated.

The Ministry's intention is to include provisions in the new regulation to require:

- Regular review and update (if needed) by BC every third calendar year following the year in which this updated regulation comes into force; and
- Ensure that this does not preclude ad hoc updates necessitated by major changes or scope expansion (industry activities additions).

Rationale

Introducing a regular BC review process on a known timeline would mean more certainty for industrial operations as they will be able to better plan for changes as a result of updated methods.

9. Providing Comment

Written comments on the proposed intentions of the Ministry outlined in this paper are being solicited for a 30 day period. Following review of comments and submissions, the Ministry will complete legal drafting of the regulation for legislative review and implementation.

Comments received will be treated with confidentiality by Ministry staff and contractors. Please note that comments you provide and information that identifies you as the source of those comments may be publicly available if a Freedom of Information (FOI) request is made under the *Freedom of Information and Protection of Privacy Act*.

Those interested are invited to submit comments in writing to climateactionsecretariat@gov.bc.ca . Please include the following subject line “GGIRCA Reporting Regulation comments” in your email.

Comments to the Ministry should be made on or before April 20, 2015.

Thank you for your time and consideration.

**MINISTRY OF ENVIRONMENT
MEETING INFORMATION NOTE**

March 13, 2015

File: 280-30

CLIFF/tracking #: 276367

PREPARED FOR: Honourable Mary Polak, Minister of Environment

DATE AND TIME OF MEETING: March 25 at 4:45 p.m.

ATTENDEES: David Adams, President, Global Automakers of Canada
Susanna Laaksonen-Craig, Head, Climate Action Secretariat

ISSUE(S): High level discussion on transportation emissions, inter-jurisdictional collaboration on climate change and stewardship waste management.

BACKGROUND:

Global Automakers of Canada (GAC) is the national association representing the Canadian interests of the 14 leading international manufacturers of light duty vehicles. In 2014, sales of member companies represented 55% of the Canadian automotive market. David Adams has been at GAC since 2005 and works with his staff to proactively monitor government legislation and regulation with the potential to impact member companies.

GAC has identified the following issues, as well as potentially inter-jurisdictional dialogues (see Appendix A), for discussion with the Minister:

1. GAC's broad support for the re-launch of the Clean Energy Vehicle (CEV) Program and the need for further infrastructure development.
2. Federal GHG emissions standards for light duty vehicles for 2017-2025.
3. Ongoing collaboration between the Ministry and the industry (manufacturers and dealers) regarding GHG reduction initiatives and impacts on the auto industry.
4. BC's plans regarding cleaner transportation fuels.
5. Waste management.

DISCUSSION:

Personal and commercial vehicle transportation is the largest single source for greenhouse gas emissions in BC, accounting for 37% of GHG emissions in the province. Personal transportation emissions represent 13% of BC's total emissions.

1. In Budget 2015, Government announced reintroduction of BC's CEV incentive program and a fuelling/charging infrastructure program. Ministry of Energy and Mines is leading the design of the new program. The initial CEV Program (2011 – 2014) provided incentives for 950 vehicles, and led to over 1,000 charging station installations across BC. GAC members supplied some of the CEVs sold in BC, including the Nissan Leaf, the Mitsubishi iMiev, and the Mercedes Smart Car.

2. BC developed a vehicle GHG emissions standard for 2010 - 2016 model years under Government's 2008 Climate Action Plan, in consultation with the automotive industry. BC did not bring its regulation into force, since equivalent federal standards were subsequently adopted. The federal government has since adopted standards for the 2017 - 2025 model year vehicles, harmonized with US standards. In Canada, the 2017 - 2025 standards are estimated to result in a cumulative GHG reduction of 162 megatonnes.
3. The BC Government has had productive consultations with the automobile sector over the past several years, including on light duty vehicle GHG standard development and the CEV program.
4. BC is implementing its Renewable and Low Carbon Fuel Requirements Regulation that diversifies BC's transportation fuel supply, decreases GHG emissions and establishes a market for low-carbon fuels. The Regulation requires a minimum renewable fuel content in all transportation fuels and a 10% reduction in the carbon intensity of transportation fuels by 2020.
5. Through the 2009 Canada-wide Action Plan (CAP) for Extended Producer Responsibility (EPR) the Canadian Council of Ministers of the Environment and its member jurisdictions commit to working towards the development and implementation of EPR programs for a list of priority products and materials in two phases, by 2015 and 2017; EPR for automotive products is targeted for 2015. In accordance with CAP-EPR, British Columbia, under the 2004 Recycling Regulation has EPR programs in place for tires, lead-acid batteries, used-oil, and antifreeze. There is no scoping work currently underway for any additional EPR programs for the automotive products category.

Additionally, with respect to waste management and the automotive sector, BC's 2007 Vehicle Dismantling and Recycling Industry Environmental Planning Regulation requires individual operators or industry associations (acting on behalf of their members) involved in vehicle dismantling and recycling, to develop environmental management plans that demonstrate how they will comply with existing regulations under the *Environmental Management Act*.

SUGGESTED RESPONSE:

Members of the BC Government and Climate Action Secretariat staff welcome ongoing contact with GAC on specific policies and/or intergovernmental processes regarding climate action.

The BC government appreciates GAC's past participation and ongoing support for the clean energy vehicle program. The reintroduced CEV Program is expected to be launched by the end of March 2015 and will include incentives for vehicles and charging infrastructure (electricity and hydrogen), as well as funds to support education and outreach activities.

BC has supported the creation of national light duty vehicle GHG standards that are harmonized across the Canadian and US auto markets. This approach avoids a patchwork of regulation for industry and will lead to significant GHG reductions from the transportation sector.

Attachments: Appendix A

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DM	WS	March 19/15
DMO	VJ	Mar 18/15
ADM	SLC	Mar 18, 2015
ED	TL	Mar 17, 2015
Author	KN	Mar 16, 2015

Appendix A – Inter-Jurisdictional Dialogues

BACKGROUND:

GAC may also touch on the following during the briefing:

- BC's involvement with inter-jurisdictional dialogues in the lead up to Paris, including federal/provincial discussions on Canada's target.
- BC's involvement with the Compact of States and Regions.
- BC's discussions with Ontario on carbon pricing mechanisms.

DISCUSSION:

BC works collaboratively with provincial, state, and national governments at every level on climate action share knowledge and lessons learned from successful policy initiatives. This engagement includes:

- Provincial dialogues with Ontario during the development of the renewal of their climate plan at the staff, ADM, and Minister level.
- Federal discussions around the development of Canada's submission to the UN negotiations for the 2015 Paris agreement.
- Regional collaboration with Washington, Oregon and California through the Pacific Coast Collaborative's 14-point Action Plan on Climate and Energy.
- International activities, such as joining the global Compact of States and Regions, committing BC to reporting emissions and our progress on a public, centralized platform.

SUGGESTED RESPONSE:

BC is an active participant in several key intergovernmental forums, with the intent of supporting effective regional and national climate initiatives, and sharing BC's experience with successful climate policies. BC works very closely with all provinces at the staff level on climate action, and participates in federal/provincial climate policy processes.

Over the coming year, BC will aim to participate in various climate events such as the Premier's Climate Summit in Quebec City in April; the Climate Summit of the Americas in Toronto in July; and, the international climate negotiations in Paris in December.

**MINISTRY OF ENVIRONMENT
MEETING INFORMATION NOTE**

March 13, 2015
File: 280-30
CLIFF/tracking #:277348

PREPARED FOR: Honourable Mary Polak, Minister of Environment

DATE AND TIME OF MEETING: March 18 at 3:45 p.m.

ATTENDEES: Paul Kariya, Clean Energy BC (CEBC); and,
Susanna Laaksonen-Craig, Climate Action Secretariat

ISSUE:

Clean Energy BC (CEBC) is likely interested in discussing:

1. The Province's policy on independent power production (IPP), following the Site C decision.
2. Development of a new BC Climate Action Plan (CAP 2.0).
3. Negotiation of a new global climate agreement in Paris in December 2015.
4. Offsets for LNG.

BACKGROUND:

- 1) The independent power producer industry in BC was launched in 1989 when BC's Minister of Energy instructed BC Hydro to issue calls for proposals for private power. The sector is represented by CEBC, formerly known as the Independent Power Producers of British Columbia. Paul Kariya is Executive Director of CEBC.

CEBC's mandate is to develop a viable clean power industry in British Columbia that serves the public interest by providing cost-effective electricity through the efficient and environmentally responsible development of the province's energy resources. CEBC meets regularly with federal, provincial and municipal governments, First Nations, utilities, and other stakeholders to further the interests of the sector.

The member companies produce approximately 20% of BC's clean energy and as of August 2013, had 13 projects under construction throughout BC with a total capital budget of \$2.3 billion.

- 2) Building on the success of its 2008 Climate Action Plan which, over the past seven years, has positioned BC as a world leader in tackling climate change, the Province has recently signalled its intent to develop a new Climate Action Plan (CAP 2.0).
- 3) Under the auspices of the UNFCCC, a new global agreement to tackle climate change will be negotiated in Paris in December, 2015. The Minister of Environment will be attending a number of national and international climate related events in the lead up to Paris, showcasing BC's existing suite of world leading climate policies and encouraging

other jurisdictions to follow our example. BC is also working closely with other Canadian jurisdictions and with sub-national governments internationally, to build momentum towards Paris by encouraging national governments to make meaningful and ambitious emission reduction commitments.

- 4) The GGIRCA provides a GHG emissions intensity benchmark for LNG facilities that can be met, in part, through the purchase of offsets.

DISCUSSION:

- 1) Recent topics of interest for CEBC in meetings with provincial ministers have included:
 - 2013: A discussion with the Minister of Environment about how clean energy can help the province achieve the goals listed in its jobs plan, including through the provision of clean electricity for upstream activities in the liquefied natural gas sector.
 - 2014: A discussion with the Minister of Environment, and the Minister of Energy and Mines (MEM), about the status and further development of the IPP sector.
 - March 2015: A discussion with MEM Executive on current provincial policy on IPP, in light of the recent decision to proceed with Site C.
- 2) CEBC will likely be interested in the scope of any new Climate Action Plan and may have an interest in informing the content of the Plan.
- 3) CEBC is likely to be well informed about the progress towards Paris but may have specific questions about what BC is doing to inform and support Canada's negotiating position (it's intended national commitment) and the potential implications of this commitment for independent, clean energy producers in BC.
- 4) CEBC will be interested in whether clean power projects will be eligible as offsets for LNG producers.

SUGGESTED RESPONSE:

- 1) Energy policy is within the purview of MEM and CEBC is encouraged to continue its dialogue with Minister Bennett and MEM staff.
- 2) While no decisions have been made with respect to the timing or scope of CAP 2.0, the development of any new Plan would include appropriate consultation with key stakeholder groups.
- 3) As a climate change leader, BC is committed to supporting the federal government and the nations of the world in achieving an ambitious climate change agreement in Paris this December.
- 4) Offset protocols are under discussion and staff can follow up on the idea of including clean energy projects.

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DM		
DMO	VJ	Mar 16/15
ADM	SLC	13/3/15
Author	DC	13/3/15

**MINISTRY OF ENVIRONMENT
MEETING INFORMATION NOTE**

March 16, 2015

File: 280-20

CLIFF/tracking #: 276934

PREPARED FOR: Honourable Mary Polak, Minister of Environment.

DATE AND TIME OF MEETING: Wednesday March 18, 2015, 1pm.

ATTENDEES: Honourable Mary Polak, Minister of Environment
Wes Shoemaker, Deputy Minister, Ministry of Environment
Jim Standen, Assistant Deputy Minister, BC Parks
David Ranson Briefing
Yarko Petryshyn, Minister's Executive Assistant

ISSUE(S): BC Parks: Towards A Sustainable Future; a strategy for creating financial viability for BC Parks

BACKGROUND:

BC Parks is one of the largest protected area systems in North America at 1,029 Parks and Protected Areas. In 2013/14, BC Parks operated on a budget of \$47.9M, of which \$16.9M (35%) is attributed to revenue collected from recreation user fees (retained by POs). The vote allocation alone made up a BC Parks budget of \$31.0M. Expenditures against vote allocation and fee revenue are as follows:

Staffing - \$15.5M
Goods & Services - \$2.8M
Amortization - \$7.5M
Deficiency Payments - \$5.2M
Retained fee revenue (compensation to
POs) - \$16.9M

¹The current BC Parks operating model relies on private Park Operators who are contracted to deliver park services through procured agreements. Park Operators collect and retain user fees as compensation for their services and where those fee revenues exceed their projected operating costs, the operators bid a return to General Revenue. Where the fees are not sufficient to cover the cost of providing service, BC Parks pays a deficiency payment to the Operator from the BC Parks annual operating budget. A recent procurement of 75% of the park operating agreements resulted in increases in deficiency payments of approximately \$1.8M per year bringing the total deficiency payments to an estimated \$7.1M¹ annually ².

BC Parks carries a capital inventory valued at over \$700M. Maintaining this capital stock requires an annual investment of 2% per year or approximately \$14M. Amortization of the BC

¹ The above are the expenditures made against VOTE ALLOCATION, except for retained fee revenue which comes from Rec User Fees. PEF expenditures come out of a separate account which is not part of the BC Parks operating budget. Expenditures out of PEF were \$1.8M in 2013/14. There are also capital expenditures, \$13.0M in 2013/14, but these are not paid against the BC Parks' operating budget (though amortization will be).

² Before 2015 fee increase is taken into consideration. The fee increase will reduce this by between \$860k and \$1.3M depending on negotiation success of regional teams.

Parks capital stock also requires annual amortization payments from the operating budget ,which in 2015/16, will be \$8.1M and which are estimated to increase by approximately \$300K per year.

The current gap in funding represents a structural shortfall in that it is not a one-time budget issue, but rather, an ongoing and growing gap between vote allocation and costs. In order to maintain the high level of services that is the hallmark of the BC Parks brand, the organization needs to close this gap; work that includes looking at new and innovative revenue streams. The strategies that will be employed in reaching the goal of financial viability will be the subject of a high level strategy, supported by detailed internal work plans and focused work teams.

DISCUSSION:

In late 2013, BC Parks presented to the Core Review Committee seeking direction on the transformation of BC Parks to a more viable operating model. Coming out of this presentation, BC Parks was directed to explore a viable operating model for the organisation that meets visitor needs including, where appropriate, encouraging investment by increasing tourism opportunities and commercial activities. A review done subsequent to this direction ruled out any significant downsizing or rationalization of the parks system.

s.12,s.13

Page 36 to/à Page 38

Withheld pursuant to/removed as

s.12;s.13

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DM		
DMO		
ADM	JS	March 16, 2015
Dir.	DR	Mar 16, 2015
Mgr.	AC	Mar 16, 2015
Author	JS	Mar 16, 2015

Page 40 to/à Page 45

Withheld pursuant to/removed as

s.12;s.13

**MINISTRY OF ENVIRONMENT
DECISION NOTE**

March 25, 2015

File:

CLIFF #: 278915

PREPARED FOR: Honourable Mary Polak, Minister of Environment

ISSUE: British Columbia becoming a party to the Global Climate Leadership MOU (Under-2-MOU)

BACKGROUND:

California is encouraging ambitious climate action and cooperation at the sub-national level through the promulgation of a Global Climate Leadership MOU. The MOU has become commonly known as the “Under-2-MOU,” in reference to limiting the increase in global temperature to below 2°C and per capita annual emissions below two metric tons by 2050.

The MOU establishes a set of common intentions and identifies a series of broad action areas but provides that each party to the MOU will set its own targets and follow its own strategies in meeting the goals established by the MOU. These jurisdiction-specific commitments are to be provided as Appendices to the MOU.

The common intentions set out in the MOU are to accelerate the world’s response to climate change and provide a model for international cooperation among nations by demonstrating leadership at the sub-national level. What this means is that parties to the MOU commit to pursuing emission reductions consistent with a trajectory of 80-95% below 1990 levels by 2050, including through the establishment of medium term targets and commitments (to 2030 or earlier), and to cooperate in meeting these targets.

The action areas within which Parties may wish to make their individual commitments towards these common goals are identified as: energy; transportation; waste reduction; science and technology; communication and public participation; short-lived climate pollutants; monitoring and reporting; and adaptation and resilience. The full text of the MOU is provided as Appendix 1.

DISCUSSION:

Premier Clark would be signatory to the MOU for British Columbia (BC). The Intergovernmental Relations Secretariat (IGRS) has indicated to California that BC is interested in signing the MOU, subject to final political approval. The Minister of Environment’s recommendations are being sought on this matter prior to a final decision being made.

The intentions, targets, and structure of the MOU are consistent with BC’s priorities:

- The intentions behind the MOU are consistent with BC’s goals to achieve meaningful emission reductions at the sub-national level and, through this, to encourage further ambitious action at the national and international levels.

- The emission targets referenced in the MOU are compatible with BC's legislated targets to reduce emissions by 33% below 2007 levels by 2020, and by 80% below 2007 levels by 2050.
- The broad action areas identified in the MOU are consistent with those where BC is already taking action under its Climate Action Plan.
- The structure of the MOU, whereby parties outline their own strategies through appendices to the MOU, accommodates BC's unique suite of climate actions, including putting a price on carbon through a revenue-neutral carbon tax.

To date, only California and Baden-Württemberg (a German state) have committed to signing the MOU. Several other jurisdictions have indicated concrete interest, including Ontario, Quebec, North Rhine Westphalia (in Germany), Catalonia (in Spain) and two other European sub-national jurisdictions. A number of states in Brazil and Indonesia have also expressed provisional interest, and CA has recently extended an invitation to join the MOU to the Pacific Coast Collaborative jurisdictions and all jurisdictions that are signatory to the Compact of States and Regions. If BC agreed to sign the MOU now, we would be the first Canadian jurisdiction and one of the first jurisdictions in the world to do so.

Should BC elect to sign on to the MOU now, there is the potential for a signing event with the Governor of California on May 19th, when the Minister-President of Baden-Württemberg will be in Sacramento for a signing ceremony. Staff in the Governor's office expect that a number of other jurisdictions may elect to sign on to the MOU on this date, though details remain to be confirmed. Other signing ceremonies will be planned in different parts of the world through the balance of 2015, as the Governor intends to travel to various Pathway-to-Paris events.

An early announcement that BC intends to sign on to the MOU may coincide with, and thereby strengthen the announcement of, a new BC Climate Action Plan (CAP 2.0). However, as new commitments under CAP 2.0 are developed and approved, it may then be necessary to revise the specific actions listed in BC's appendix to the MOU.

Ministry staff has drafted the appendix to the MOU that would provide BC's specific commitments under the MOU - attached as Appendix 2 to this note. It reiterates BC's existing commitments and describes the actions BC is taking to fulfil those commitments.

Importantly, the MOU and appendix do not commit BC to any new or further actions beyond those already approved by the Province.

OPTIONS:

s.13,s.16

RECOMMENDATION:

Option 1: Minister recommends committing to becoming a party now and signing the MOU in May.

DECISION & SIGNATURE
 The Honourable Mary Polak
 Minister of Environment

DATE SIGNED

Attachments:

Attachment 1: Global Climate Leadership MOU

Attachment 2: Draft BC Appendix to Global Climate Leadership MOU

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DM	MZ for WS	March 31/15
DMO	VJ	March 31/15
ADM	SLC	30/03/15
Exec. Director	TL	29/03/15
Author	DC	25/3/15

GLOBAL CLIMATE LEADERSHIP
MEMORANDUM OF UNDERSTANDING (MOU)

I. Statement of Purpose

- A. Climate change presents worldwide challenges and risks to environment and economies, impacting human health, increasing extreme weather events, threatening natural resources and triggering forced migration of populations. Impacts from climate change are already inevitable due to the greenhouse gas emissions (GHG) already resident in the atmosphere. At the same time, climate change responses and solutions create economic opportunities and benefits through sustainable energy and development. International efforts are necessary to ensure protection of humankind and our planet, and to limit the increase in global average temperature to below 2°C. To achieve this will require substantial emissions reductions over the next few decades and near zero emissions of CO₂ and other long-lived GHGs by the end of the century.

[(Intergovernmental Panel on Climate Change - Fifth assessment report (AR5))]

- B. Governments at all levels need act **now** to reduce GHG emissions in order to achieve long-term climate balance. Entities need to harness new technologies, policies, financing mechanisms, and economic incentives to reduce emissions while developing common metrics to measure their progress. Governments must also increase the resilience of infrastructure and natural systems to growing climate impacts.
- C. While the signatories to this MOU (hereinafter referred to as “the Parties”) acknowledge and affirm support of international activities and declarations to respond to climate change (including the Rio Declaration on Environment and Development (1992), the Montreal Declaration (2009), the Cancun Statement (2011), and the Lyon Declaration (2011)), international efforts on climate change to date have been inadequate to address the scale of the challenge we face. Despite limited progress in cooperation among nations, sub-national jurisdictions—including provinces, states, and cities—have led the world in setting ambitious climate targets and taking actions to reduce GHG emissions and protect against climate impacts.
- D. By working together and building on agreements such the Declaration of Rio de Janeiro 2012 (Federated States and Regional Governments Committed to a New Paradigm for Sustainable Development and Poverty Eradication), subnational governments, together with interested nations, can help to accelerate the world’s response to climate change and provide a model for broader international cooperation among nations.

II. Reducing greenhouse gas emissions

- A. The guiding principle for reduction of GHG emissions by 2050 must be to limit global warming to less than 2°C. For Parties to this MOU this means pursuing emission reductions consistent with a trajectory of 80 to 95 percent below 1990 levels by 2050 and/or achieving a per capita annual emission goal of less than 2 metric tons by 2050.
- B. In order to achieve this ambitious 2050 target, measurable progress must be made in the near-term to establish the trajectory of reductions needed. Midterm targets, including commitments for 2030 or earlier are critical. Recognizing that each party has unique challenges and opportunities, this agreement does not prescribe a specific path for 2030. Rather, Parties agree to undertake their own unique set of actions and plans in Appendix A to reach 2030 reduction goals and related targets.
- C. Parties aim at broadly increasing energy efficiency and a comprehensive development of renewable energy to achieve the GHG emission goals. Parties set forth their 2030 goals and targets for these and other critical areas in Appendix A.
- D. Specific areas of action, coordination, and cooperation: the following is a non-exhaustive list of issues of interest for cooperation and coordination among the Parties:
1. Energy:

The Parties agree to share information and experience on redesign of the power supply and grid, technical solutions and advances in promoting large-scale switch to renewable energy and the integration of renewable energy sources, actions needed to ensure security of supply, and strategies to promote energy efficiency.
 2. Traffic and Transport:

The Parties agree to take steps to reduce greenhouse gas emissions from passenger and freight vehicles, with the goal of broad adoption of "zero emission vehicles" and development of related zero emission infrastructure. The Parties agree to encourage land use planning and development that supports alternate modes of transit, especially public transit, biking, and walking.
 3. Natural Resource Protection and Waste Reduction:

The Parties agree to collaborate on methods to reduce emissions from the natural resources and waste sectors, which exist at the nexus of climate mitigation and adaptation activity. Parties will share information about management techniques to sequester carbon and protect natural infrastructure. Parties will share technologies to reduce waste or convert waste to secondary raw materials or to energy.
 4. Science and Technology:

The Parties agree to collaborate and coordinate on scientific assessment efforts, and share information and experience in technology development and deployment. Parties seek to help others learn from experience to maximize success of technological transitions and avoid potential obstacles.

5. Communication and Public Participation:

The Parties agree to collaborate and coordinate on messaging, transparency, public outreach around climate change, mitigation of GHG emissions, adaptation, and the subject matter of this MOU.

6. Short-lived Climate Pollutants:

The Parties agree to collaborate on the reduction of short-lived climate pollutants such as black carbon and methane, which will provide near-term air quality benefits, while also reducing potent climate forcing pollutants.

The Parties agree that for actions related to this MOU, coordination and cooperation will be beneficial and will strengthen the efforts of participating states. The Parties agree to work together on solutions that provide near- and long-term environmental and economic co-benefits, including joint efforts where possible. The Parties may expand the list of specific areas of action set forth in this sub-section from time to time.

E. Inventory, Monitoring, Accounting, Transparency:

The Parties agree to work towards consistent monitoring, reporting, and verification across jurisdictions, and will work through mechanisms such as the Compact of States and Regions and the Compact of Mayors to that end.

III. **Adaptation and Resilience**

- A. The Parties agree to collaborate on actions to promote adaptation and resilience, with an eye toward maximizing benefits for both GHG emission reduction and climate adaptation.
- B. Parties will share best practices in modeling and assessment to understand projected climate impacts, especially at the regional and local scale. Entities will share best practices in integrating these findings into planning and investment.
- C. Parties will work together to build metrics and indicators that can help to track progress in reducing the risk of climate change to people, natural systems, and infrastructure.
- D. In working to reduce climate risk, Parties will look to natural or “green” infrastructure solutions that maximize ecological benefits while providing protection. Parties will share best practices in designing and deploying these solutions.

- E. Parties to this MOU will work to share innovative models for financing and supporting climate adaptation, including public-private partnerships, resilience funds, and competitive approaches.

IV. Means of Implementation

The Parties each have their own strategies to implement and achieve their goals and targets. While some strategies will be unique to particular Parties, others can be shared and/or modified by other Parties.

- Parties agree to collaborate and coordinate to advance respective interim targets consistent with 2050 goals and climate actions at the annual Conference of Parties and other international climate events.
- Parties agree to share and promote effective financing mechanisms domestically and internationally to the extent feasible.
- Parties agree to share technology to the extent feasible, such as through open source information.
- Parties agree to help build capacity for action and technology adaptation through technology transfer and expertise to the extent feasible.

This MOU is neither a contract nor a treaty.

APPENDIX A.1

CALIFORNIA

California is a leader in climate change action. As of May 2014, 23% of California's electricity produced is from renewable sources. California is the only U.S. state with an economy-wide, legally binding emissions trading system. By 2020, California will reduce greenhouse gas emissions by 17 percent to 1990 levels to 431 million metric tons of CO₂e, and will generate at least 33 percent of its electricity from renewable sources. California is the world's leading market for electric vehicles and for stationary storage, including a requirement of 1300 MW of storage by 2020. These programs have become part of the dynamic economic engine that is California. Over the past five years, the state's gross domestic product has grown by five percent while the amount of carbon pollution has fallen. California solar companies employ more than 44,000 people. Over four decades, the state's appliance and building efficiency policies have saved consumers over \$65 billion and created 1.5 million jobs. California's 2030 greenhouse gas emission reduction target will be consistent with an 80% reduction target for 2050.

Specific Actions and Commitments

I. Energy Efficiency

California requires that all new residential construction be Zero Net Energy by 2020, and all non-residential be so by 2030. California is developing additional cost-effective minimum efficiency standards for a variety of lighting, electronics and other common products. California is also instituting requirements for energy benchmarking of all non-residential buildings above 30,000 square feet. The State is also using standardized reporting and analysis tools for statewide assessment and trending of existing building energy performance patterns, which will call for evaluation of current and future actions. California's annual energy ratepayer investment of \$1.2 billion in end-use energy efficiency is likely to increase. California is promoting a number of financing tools for home energy retrofits and will increase efforts to ensure a higher percentage of energy retrofits for existing homes and buildings.

II. Low Carbon Electricity

California will build on its 2020 target of a 33%-plus renewable portfolio with an increasing percentage of renewables to 2030 and beyond; Governor Brown has proposed a goal of 50% renewables by 2050. California's focus will be more specifically on GHG emission reductions from the power sector, through an increased renewable portfolio, demand reduction and response, increased storage paired with renewables, increased penetration of distributed renewables and storage, and actions at the grid level.

III. Decarbonization of Transportation

The transportation sector in California accounts for nearly 40% of its greenhouse gas emissions. Strategies for reducing carbon pollution must include transformation of

the transportation fleet from older higher pollution vehicles and fuels to newer, near zero and zero emission vehicles and cleaner, less carbon intense fuels. California has set a goal of 1.5 million zero emission vehicles by 2025, adopted a Zero Emission Vehicle mandate, provided incentives for purchasers of ZEVs, established grants to accelerate charging infrastructure for battery electric vehicles and hydrogen fueling infrastructure for fuel cell electric vehicles, and developed programs to support near zero and zero emission vehicles and fuels in a wide variety of fleets from transit buses to port equipment. California's low carbon fuel standard requires a 10% reduction in the carbon intensity of transportation fuels in California by 2020. California is providing more zero emission transit options, changing land use and zoning to reduce vehicle miles traveled, and building a high speed rail network that will be the backbone of an integrated transit system. California has also adopted aggressive carbon pollution reduction requirements for all vehicles through 2026 and beyond. By 2030, California's transportation emissions will be significantly reduced, in line with the 2050 reduction goals.

IV. Emissions Trading

California's emissions trading program sets statewide limits on sources of 85 percent of greenhouse gas emissions, and helps establish a price for emissions and drive investments towards cleaner energy, infrastructure, and fuels. The emission cap declines 2 to 3 percent through 2020. Sending the market a signal that the cap-and-trade program will continue in the long-term is critical to fully realizing the benefits of the program. Extending the cap-and-trade program beyond 2020 will also reduce the costs of the program as California industry and households make long-term capital and investment decisions. The level of the cap decline beyond 2020 will be commensurate with the emission reductions needed to meet the 2030 goal.

V. Funding

California has multiple funding mechanisms to drive emissions reductions and is evaluating others. Cap and trade auction revenue, bonds, ratepayer funds, Property Assessed Clean Energy funding, and on-bill financing are among the mechanisms currently being used.



Baden-Württemberg

The State of Baden-Württemberg, located in South West Germany, is one of the most prosperous regions in Europe. Baden-Württemberg is a pioneer in Germany and the EU. Though the state is embedded in the national German and the European climate policy, Baden-Württemberg undertakes its own contributions to achieve the political goal of acting as a pacemaker, particularly in Germany and the EU. For example, Baden-Württemberg, along with North Rhine-Westphalia, passed its own ‘Climate Protection Act’ as the first state in Germany. On this basis and with a broad public participation process an ‘Integrated Energy and Climate Protection Action Plan (IEKK)’ was developed. The IEKK includes over 100 measures to reduce greenhouse gas emissions in line with the German energy transition “Energiewende” and the decision to phase out nuclear energy production.

In the IEKK reduction targets are also defined for key sectors such as power generation, industry and the transport sector. The necessary basis was derived from an energy scenario for Baden-Württemberg; it shows possible paths to reach the GHG emission targets. The future energy needs were identified in different sectors and the level of potential coverage by renewable energy sources was identified. The greenhouse gas (GHG) emissions are split between three main sectors: electricity and heat production with around 23%, transport with slightly above 28% and energy consumers in household and small business with about 23%. About a third of the greenhouse gas emissions of Baden-Württemberg are covered by the EU emission trading system (ETS). The first ETS worldwide was installed in a pilot phase 2005-2007. In 2021 the fourth phase will start with an annual reduction of the emission-allowances in the EU climbing from 1,74% to 2,2%.

Baden-Württemberg aims to reduce greenhouse gas emissions by 2020 compared to 1990 by at least 25% and by 2050 by 90%. European heads of state have decided a greenhouse emissions reduction target for the year 2030 of 40% compared to 1990 to which a reasonable contribution of Baden-Württemberg is intended. Furthermore, the EU has decided to increase the share of renewable energy to 27% of primary energy in 2030 and to reduce energy consumption by 27%.

The starting position:

Population	10.8 million (2013)
GDP	37,472 EUR per capita (2013)
Country	Germany

GHG emissions (year): 76 million tons (2012)

Specific Actions and Commitments:

I. Greenhouse Gas Emissions:

By 2020 Baden-Württemberg will reduce GHG emissions by 25% and by 2050 by 90% compared to 1990. The targets are laid down in the “Climate Protection Act Baden-

Württemberg" which was enacted by the state parliament on 17th of July 2013.

Against this background an "Integrated Energy and Climate Protection Action Plan (IEKK)" was developed. A periodical monitoring program will be established for the further development of the IEKK.

With regards to the EU 2030-targets of 40% THG reduction a reasonable contribution of Baden-Württemberg is intended.

II. Renewable Energy:

The amount of renewable energies in final energy consumption by 2020 will be increased up to 25%. The Baden-Württemberg objective for 2030 will be updated depending on the implementation of the EU 2030 target of 27%. Since 2011 Baden-Württemberg has improved the legal planning conditions for wind farms. In 2013 renewable energy covered about 23% of electric power production. In Germany the national Renewable Energy Law (EEG) promotes the generation of renewable energy.

At the national level there is a Statute on the Use of Renewable Heat Energy for new buildings. Additionally there are further funds in Baden-Württemberg for existing buildings. For example, in the case of a change of the radiator the owner must use regenerative heating energies or alternatively the energy efficiency of the house can be improved by better insulation of the roof or the front of the house.

III. Energy Efficiency:

By 2020 the final energy demand compared to 2010 will decrease by 16%. The EU 2030 target aims to increase the energy efficiency by 27%. Baden-Württemberg promotes energy efficiency through a wide range of measures, including a widespread network of regional energy agencies, which provide advice for households and businesses, campaigns for energetically retrofitting residential buildings, grant schemes on the latter for households, and grant schemes for energy efficiency in small and medium sized businesses. Baden-Württemberg emphasizes the combined generation of power and heat, ideally by use of renewable energies. Municipalities and electricity producers are encouraged to develop further local heat networks.

IV. Sustainable Mobility:

Baden-Württemberg has become a pioneering region for sustainable mobility. In the "transport and mobility" sector Baden-Württemberg aims to reducing GHG emissions by 20 percent by 2020, compared to 1990. By 2050 the GHG emissions in this sector should be reduced by 70%. Therefore several actions are to be taken, like strengthening bicycle traffic, public transport and electro-mobility. To ensure constant progress towards these objectives numerous sub-goals have been agreed upon. For example, Baden-Württemberg intends to increase the share of bicycle traffic from 8% in 2008 to 16% by 2020 and increase the number of electric vehicles to 200.000 until 2020.

V. Role model of the state:

The state administration of Baden-Württemberg is pursuing the objective of near climate neutrality by 2040. Therefore Baden-Württemberg is pursuing a comprehensive retrofitting of its state-owned buildings in order to reduce its own energy consumption and is increasing the number of e-mobile vehicles in its car

pools. Part of the scheme is to raise the share of renewable energies for state purposes.

VI. Emission Trading:

Baden-Württemberg industries are taking part in the EU emission trading system (ETS). Baden-Württemberg advocates for ensuring the ETS is an efficient instrument for reducing greenhouse gas emissions and climate protection.

BRITISH COLUMBIA

British Columbia (B.C.) was the first jurisdiction in North America to introduce a carbon tax and require greenhouse gas emissions reduction targets by legislation – 33 per cent below 2007 levels for 2020 and 80 per cent below 2007 levels for 2050. The carbon tax was launched together with a suite of ambitious measures outlined in B.C.'s 2008 Climate Action Plan. The carbon tax and complementary policies allowed British Columbians to reach their 2012 interim emissions reduction target of 6 per cent below 2007 levels. In the same period, the province's population and GDP increased, keeping pace with the Canadian average. This was a major milestone for the province and represented the first step in a longer journey toward achieving 2020 and 2050 targets. B.C. will continue the internationally recognized leadership it began with the Climate Action Plan in 2008 and is currently developing a second Climate Action Plan to outline the steps to achieve the 2050 80 per cent greenhouse gas reduction target, considering new economic opportunities and new options to mitigate greenhouse gas emissions.

The starting position:

Population	4, 582, 600 (2013)
GDP	\$50, 121.00 CAD per capita (2013)
Country	Canada
GHG emissions:	61.5 million tonnes CO ₂ e (2012)

Specific Actions and Commitments

Carbon Tax

British Columbia's revenue neutral carbon tax remains the most comprehensive and ambitious of its kind in North America, establishing a model for other jurisdictions around the world. B.C.'s carbon tax applies to virtually all fossil fuels, including: gasoline, diesel, natural gas, coal, propane, and home heating fuel. The carbon tax started at a rate based on \$10 per tonne of carbon-dioxide equivalent emissions, and rose \$5 each year over four years, reaching \$30 per tonne in 2012. The revenue generated by this tax is returned to individuals and businesses through reductions in other taxes. Since the introduction of the tax, independent research has shown that fuel use per capita has fallen 17.4 per cent between 2008 and 2012. B.C. remains committed to a strong price on carbon, and works to encourage other jurisdictions to adopt similar measures.

Clean Power

The province has legislation requiring 93 per cent or more clean and renewable electricity generation. In November 2013, the Province approved B.C. Hydro's Integrated Resource Plan that shows that B.C. Hydro, the largest electricity utility in the province, is at 96 per cent renewable electricity generation. There is currently no coal power generation in British Columbia. British Columbia's *Energy Plan: A Vision for Clean Energy Leadership*, set out a policy objective to require zero greenhouse gas emissions from any coal thermal electricity facilities in B.C. In December 2014, the Province made a final investment decision to develop Site C, a 1,100 MW hydro-electric facility on the Peace River—the third facility on

the Peace River, demonstrating B.C.'s commitment to clean power. Energy utilities are required to pursue demand-side measures (DSM) up to the cost of new clean generation resources before purchasing new generation. B.C. Hydro is required to meet 66 per cent of new demand through DSM by 2020, and B.C. Hydro's Integrated Resource Plan shows B.C. Hydro plans to meet 78 per cent of new demand through DSM.

Energy Efficiency

B.C. sets energy performance standards to meet targets for market transformation of 66% displacement of electricity demand growth and 20% reduction in energy in houses by 2020. B.C. recently adopted energy efficiency standards aligned with national and regional leaders for small battery charging systems (e.g., cordless phones, cell phones, power tools, laptops, and golf carts), clothes washers, dishwashers and residential gas-fired furnaces. Net present value energy savings at the provincial level are estimated to be \$157 million CAD. Twenty-nine per cent of LEED Gold building projects registered in Canada since 2007 are in British Columbia, and all new public sector buildings must be built to LEED-gold standard or better. B.C. was the first jurisdiction in Canada to adopt both the new National Building Code energy-efficiency requirements for housing and small buildings and the National Energy Code for Buildings, which applies to large buildings (2013).

Transportation

By building the key infrastructure, increasing the adoption of cleaner fuels, and encouraging the transition to clean energy vehicles, BC is moving toward building a transportation system that reduces distances driven and is powered by clean energy.

Clean Energy Vehicles

Actions in every sector have helped people, communities and businesses reduce their emissions and their costs. For example, in 2011, the British Columbia Government launched their \$14.3 million CAD Clean Energy Vehicle (CEV) Program to provide incentives for eligible clean energy vehicles and deployment of charging point infrastructure for these vehicles. The CEV Program has provided British Columbians with more affordable clean energy transportation solutions, and B.C. leads Canada in clean energy vehicle sales per capita and has the largest electric vehicle charging and hydrogen fueling networks in Canada. In 2015, BC renewed the CEV program to continue to encourage adoption of clean energy vehicles.

Low Carbon Fuel Standards

Adopted in 2008, B.C.'s Renewable and Low Carbon Fuel Requirements Regulation has helped reducing British Columbia's reliance on non-renewable fuels and the environmental impact of transportation fuels. This regulation enables the Province to set benchmarks for the amount of renewable fuel in B.C.'s transportation fuel blends, reduce the carbon intensity of transportation fuels and meet its commitment to adopt a low-carbon fuel standard. Currently the regulation targets a 10 per cent decrease in carbon intensity of transport fuels sold in B.C. by 2020, and 5 per cent renewable content in gasoline (4 per cent in diesel).

Alternative Fuels

The Province implemented the Greenhouse Gas Reduction (Clean Energy) Regulation in 2012 that permits utilities to offer incentives for the purchase of natural gas vehicles and to make investments in liquefied natural gas and compressed natural gas fuelling infrastructure in sectors such as medium and heavy duty on-road transportation, marine, mining, and locomotive support.

Cleanest LNG facilities in the world

The B.C. government had committed to having the cleanest LNG facilities in the world, while maintaining its leadership in clean energy and climate change. The Province has implemented a benchmark approach with the use of offsets and technology fund contributions as flexible means to achieve compliance. Facilities must reduce the intensity of their emissions against a standard that outperforms the cleanest LNG facilities in the world today.

Commitment to Leadership in Government Operations

Each year since 2010, B.C.'s public sector has achieved carbon neutrality, a first for any province or state in North America. Through the Carbon Neutral Government program, the development of B.C.-based offsets has meant this achievement places British Columbia on the leading edge of growth in the clean energy and clean technology sectors. Provincially owned or leased buildings must be LEED gold or equivalent. The Carbon-neutral Capital Program helps schools, universities, colleges and hospitals reduce energy costs and use innovative clean technologies. Government buildings are able to showcase examples of clean energy solutions for hundreds of thousands of British Columbians when they access government services, go to work or attend school.

Local Communities

B.C. can only meet its greenhouse gas reduction commitments with the help of its cities and communities. Over 180 local governments have signed a voluntary agreement with the government of B.C. through the Climate Action Charter. By signing the Climate Action Charter, local governments commit to: working toward carbon neutrality in their corporate operations; measure their community energy and emissions; and create complete, compact, more energy efficient rural and urban communities. To support their commitments, local government signatories that report on their progress each year are granted the same amount paid in carbon taxes on their corporate operations.

**MINISTRY OF ENVIRONMENT
BRANCH-ORIGINATED INFORMATION NOTE**

March 31, 2015
Previous Note: 12/30/2014-270931
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CLIFF/tracking #: 281728

Prepared for: Honourable Mary Polak, Minister of Environment

What: Pre-brief for the Premier and Minister's attendance at April 17, 2015 Spring Meeting of the World Bank and IMF.

Why: Minister and DM will brief the Premier on this trip on April 7th.

Required by: April 2, 2015

Briefing: DM and Minister brief the Premier on April 7th.

BACKGROUND:

The World Bank Group's *Carbon Pricing Leadership Coalition* (the Coalition) was launched in October 2014. Its goal is to foster cooperation among governments, businesses and civil society to accelerate the adoption of national and sub-national carbon pricing schemes. Member jurisdictions' carbon pricing actions will be showcased in the World Bank's 2015 *States and Trends of Carbon Pricing* report. British Columbia (BC) joined the Coalition in February 2015, and was subsequently invited to participate in the 2015 annual joint World Bank/IMF Spring Meeting on April 17-19 in Washington, DC.

The Spring Meeting typically features seminars, briefings and events focused on the global economy, economic development and financial markets. A focus for 2015 is the financial aspects of climate change, to which end the Coalition is sponsoring a Climate Finance Ministerial to discuss using market mechanisms to incentivize the private sector to transition to lower carbon options, and the provision of financial support to developing countries for climate mitigation and adaptation.

The specific agenda topics for the Ministerial will be:

- Getting prices right – using carbon pricing, green taxation, performance standards and other market mechanisms to incent investment to shift to green infrastructure and projects.
- Pursuing climate-resilient development - recognize that small investments in resilience and early warning will significantly reduce the costs of disaster relief and reconstruction over the next century.
- Getting finance flowing for clean, resilient developments – bring coherence and scale to development and climate finance.

World Bank President Jim Yong Kim will chair the Climate Finance Ministerial, with attendance from G20 finance ministers and select CEOs that are leading on addressing these climate change issues. The format of the event is a roundtable discussion and Premier Clark has been invited to provide a five-minute initial intervention on BC's success in pricing carbon, followed by other invited speakers and then open discussion. Speaking notes are being prepared by GCPE for the Premier.

DISCUSSION:

Market-based mechanisms and BC's Climate Action Plan.

British Columbia's climate actions have included a number of market-based and other policy tools to incentivize the transition to a low carbon economy:

- **Carbon Tax:** BC's revenue neutral carbon tax covers 70% of the province's total greenhouse gas emissions, is revenue neutral, and has coincided with a 6.1% increase in BC's real GDP (2007-12) and a 16% decrease in BC's fuel transportation fossil consumption. Introduced in 2008 at \$10/tonne of CO₂ equivalent emissions, the tax increased in four annual increments of \$5/tonne to its present level of \$30/tonne.
- **Cap and Trade:** BC championed the development of a regional cap and trade program with California and nine other states and provinces as a means to encourage additional jurisdictions to include carbon pricing in their suite of aggressive climate actions. BC has introduced a limited emissions trading system as a flexible approach to regulating the Liquefied Natural Gas sector in addition to the carbon tax, to achieve the cleanest LNG facilities in the world while maintaining the attractiveness of BC as a place to invest.
- **Carbon Neutral Government:** BC government operations and all schools, universities and hospitals are required to be carbon neutral, including through purchase of emission offsets, which allow for the efficient allocation of emissions and reductions based on abatement costs.
- **Transportation:** incentives to purchase clean energy vehicles (CEV) and invest in electric vehicle infrastructure are provided direct to consumers and through BC's energy utilities. Legislation requires that the carbon content of vehicle fuels be reduced 10% by 2020 and BC has deployed the largest EV charging network in Canada.
- **Energy:** legislation requires that 93% of BC's electricity generation is from clean, renewable sources. BC is achieving up to 97% clean electricity generation annually. Energy efficiency and conservation are encouraged through the adoption of minimum energy performance standards (LEED Gold) for public buildings, appliance standards, and through the building code.
- **Emission reduction targets:** BC is committed to reducing its emissions to 33% below 2007 levels by 2020, and to 80% below 2007 levels by 2050, and has successfully reached its first interim target of a 6% reduction below 2007 by 2012.
- **Communities:** 93% of local governments have signed the BC Climate Action Charter, committing themselves to working towards carbon neutrality and growing the green economy in their communities.

BC's climate actions, and in particular, the introduction of a revenue-neutral carbon tax, have generated significant interest from jurisdictions around the world as they look to introduce market-based mechanisms of their own. BC supports the efforts of other jurisdictions by participating in numerous regional, national and international climate action forums, sharing our experiences, encouraging ambitious action by other jurisdictions, and building momentum towards the achievement of a meaningful global climate agreement at the UNFCCC Conference of the Parties in Paris this December.

Based on the success of BC's climate actions to date, whereby our emissions are down, our economy is growing, our budget is balanced, and our government is stable, the Province is also looking forward in the coming months to introducing a further suite of actions to address the climate challenge.

CONCLUSION:

BC has a compelling story to tell at the World Bank/IMF Spring Meeting in April with respect to the effectiveness of its climate action policies, and in particular its revenue neutral carbon tax, which have enabled the province to lower its emissions without hurting the economy or the electoral success of the government that introduced the measures.

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