

**MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES  
BRIEFING NOTE FOR DECISION**

**I PREPARED FOR:** Honourable Michelle Mungall, Minister of Energy, Mines and Petroleum Resources

**II ISSUE:** Clean Energy Vehicle Program – Design and Delivery for Fiscal Year 2019

**III BACKGROUND:**

There are six main barriers to increased zero-emission vehicle (ZEV) adoption: lack of vehicle supply (both availability and variety); higher up-front costs for consumers; lack of charging / refuelling infrastructure; lack of public awareness; and technological advancement and specialized skills training. The Ministry is applying a market transformation approach to transition the transportation sector to ZEVs, starting first with measures and investments to address market barriers and develop a solid consumer base, and following with regulatory standards to manage fiscal impacts and prevent a return to lower-quality technologies.

British Columbia (BC) currently has the highest rate of CEV adoption in Canada, at over 4 per cent (%) of new light-duty vehicle sales, and one of the largest charging and hydrogen fuelling infrastructure networks, despite making much lower incentive investments than Quebec's and Ontario's (now ended) similar programs. Consumer awareness of ZEVs in BC is higher than the rest of Canada, and customer uptake in both the vehicle and infrastructure incentive programs regularly exceeds projections.

**Budget 2019 Direction**

Table 1 in Appendix A summarizes the CleanBC ZEV program offerings to be delivered by the Ministry, and approved funding allocations in Budget 2019. Funds are frozen pending a report-back to Treasury Board on the key parameters and delivery partners for each sub-program, interactions with any Federal programs, and the breakdown of funding towards new staff resources.

The CleanBC Transportation Budget 2019 submission committed to centralize ZEV program offerings, along with information on measures and quarterly reporting on progress, onto one central online hub and under one CleanBC brand for the public and stakeholders. This would make the ZEV offerings easier to access for consumers, and streamline and coordinate program information across delivery partners and funders.

Budget 2019 only approved one year of vehicle incentives, and deferred funding decisions for 2020 – 2022 to Budget 2020 based on a better understanding of program uptake, performance, and other funding sources such as the federal government. The Budget 2020 submission will need to include options for the continuation of the vehicle incentives, including a reduction of incentives, and a transition to either a PST exemption or incentive delivery by utilities.

**Federal Budget 2019**

The 2019 Federal Budget committed to a two-year, cross-Canada, point-of-sale vehicle incentive program. Program details announced April 17, 2019 indicate vehicles with battery

capacities over 15 kWh will receive a \$5,000 incentive, while vehicles with a battery capacity below 15 kWh will receive a \$2,500 incentive. This aligns with BC's current incentive design. The Manufacturer Suggested Retail Price (MSRP) Federal vehicle eligibility thresholds will be set as follows: for vehicles with six seats or less, base level MSRP limits of \$45,000 up to a maximum trim-level MSRP of \$55,000; and for vehicles with more than six seats, base level MSRP limits of \$55,000 up to a maximum trim-level MSRP of \$60,000.

Purchases made after May 1, 2019 will be eligible for incentives. Federal staff anticipate that they will only have their third-party program infrastructure in place by July or August. Until the third-party system is established, customers will still have access to the incentive at the point-of-sale, but dealers will be required to submit applications for the incentive to the federal government directly for reimbursement.

The federal government is also proposing to deliver a public Level 2 charging station program. It intends to consult with provinces and stakeholders in spring 2019 on the program design. At this time, it is anticipated that the program will only support publicly-accessible charging stations as opposed to privately-owned charging stations. Although Ministry staff do not currently foresee significant overlap with the CleanBC home and workplace charging incentives, they will continue to coordinate with the federal government, and may propose program modifications in the future to better leverage federal funding and reduce any program overlap.

#### **IV DISCUSSION:**

The new ZEV targets set by the Province in legislation, along with the expanded ZEV program commitments in CleanBC, require taking the program and outreach efforts to the next level. There is a significant need to streamline the customer experience, while ensuring all relevant stakeholders (automakers, dealers, utilities, infrastructure providers, local governments, and ZEV interest groups) are working together to achieve the ambitious targets. There is also a need to consider the level and scope of provincial vehicle incentives in the context of the new federal vehicle incentives.

There are five key decisions required to finalize the CleanBC ZEV program design for fiscal year 2019/2020:

1. Delivery model;
2. Marketing funds;
3. Vehicle price eligibility for provincial incentives;
4. Base vehicle incentive levels; and
5. Affordability incentive mechanism.

The design of the current CEV Program is detailed below in the context of the above-noted five decision areas.

#### **Current CEV Program (Status Quo)**

##### **1. Delivery Model**

The CEV Program offerings are delivered on behalf of the Province by numerous delivery agents to reduce internal administration costs and extend program reach, by leveraging their administration systems, existing public and business relationships, and in-kind contributions.

However, the CEV Program currently suffers from lack of a coordinated communications strategy and mixed branding across the suite of program offerings.

Customer experience for receiving the light-duty vehicle incentives is streamlined at the point-of-sale by working directly with the BC New Car Dealers Association (NCDA). These are marketed as Government of BC CEVforBC incentives. Home and workplace infrastructure incentives are delivered through a separate application process post-installation, resulting in a less streamlined experience for consumers than the vehicle incentives. These are marketed as Government of BC incentives delivered by Plug-In BC.

Public fast charging and hydrogen fuelling investments are marketed as Government of BC investments, but delivered by Natural Resources Canada and the Canadian Hydrogen Fuel Cell Association, respectively, to allow for a streamlined process for proponents accessing provincial and federal funding. The medium- and heavy-duty vehicle incentives are offered as mail-in rebates for consumers and marketed as Government of BC Specialty Use Vehicle incentives delivered by Plug-In BC.

While the [www.gov.bc.ca/cleanenergyvehicleprogram](http://www.gov.bc.ca/cleanenergyvehicleprogram) site provides one online platform for consumers to find information on all CEV Program offerings, it is not a marketing site, and largely re-directs customers to a variety of other sub-program websites, namely: CEVforBC; Plug-In BC; the Advanced Research and Commercialization Program of BC; and the Canadian Hydrogen and Fuel Cell Association. The result is a disjointed experience for consumers on ZEVs and what programs might be available in BC.

## 2. Marketing funds

Overall marketing funding from the Province to-date for the suite of CEV Program offerings has been quite limited at approximately \$300,000 per year across all sub-programs, and not well coordinated across the various sub-programs in terms of look and feel. Approximately \$100,000 per year is allocated to marketing of the CEVforBC vehicle incentives and delivering consumer ride-and-drive events around the province. Approximately \$200,000 per year is allocated to the development and dissemination via partners of public awareness information and materials on ZEVs, and to support public outreach activities and ride-and-drives led by local governments and community organizations.

For targeted public education and outreach, the Province has an existing agreement with the Fraser Basin Council, with funds already allocated, that runs until March 31, 2021, for the Emotive outreach program. Emotive is a partnership program, borne out of a need to help grass-roots-level ZEV outreach activities have consistent messaging and strategies without being tied to one organization. Through Emotive, the Province develops consistent ZEV outreach materials on behalf of local governments and community organizations to support their public outreach on ZEVs including events and ride-and-drives. The Emotive program also provides financial support and guidance to community-run ZEV events. Because of the existing agreement and funds with the Fraser Basin Council and community organizations, the Province is not in a position to cancel the Emotive program.

## 3. Vehicle price eligibility threshold

Vehicle incentives are only available on ZEVs with a base model Manufacturer Suggested Retail Price (MSRP) below \$77,000. The CleanBC Transportation Budget 2019 submission committed to reduce the vehicle MSRP eligibility threshold from \$77,000 to \$65,000.

#### 4. Base vehicle incentive levels

Hydrogen fuel cell vehicles receive a \$6,000 incentive, battery-electric and plug-in hybrid electric vehicles with batteries over 15 kWh receive a \$5,000 incentive, while those with batteries below 15 kWh receive a \$2,500 incentive.

#### 5. Affordability incentives

The current program does not offer affordability incentives. The CleanBC Transportation Budget 2019 submission proposed an affordability incentive of \$2,000/ZEV on top of the base ZEV incentives if the Province was not pursuing a used ZEV PST exemption.

### **V OPTIONS:**

Options for the CleanBC ZEV program design for fiscal year 2019/2020 are detailed below.

#### 1. Delivery Model

**Option 1 (Recommended):** ZEV program under one CleanBC brand: Province-BC Hydro partnership on marketing. Other delivery partners offering back-end administration where necessary for ease of consumer access (e.g. NCDA on vehicle incentives, FortisBC on infrastructure within their territory) or ensuring funds are outside of the Government Reporting Entity within the fiscal year (e.g. NRCan on public charging stations).

##### **Considerations:**

- Streamlines the ZEV customer experience by providing customers with a single access point for comprehensive ZEV incentive and program information;
- Leverages utility experience and program marketing expertise to ensure robust adoption of ZEVs to meet CleanBC targets;
- Maintains vehicle incentives for customers at point-of-sale by using the NCDA as the back-end administrator;
- Both BC Hydro and FortisBC have indicated an interest in partnering with the Province on the ZEV program. This model involves the marketing of the vehicle incentives branded as Province-BC Hydro only;
- To ensure Province-wide coverage of the CleanBC transportation programs, FortisBC would still need to be involved in delivering infrastructure programs within their service territory. For these programs, the Province-BC Hydro co-branding would need to be carefully coordinated with any separate FortisBC messaging;
- Ensures Budget 2019 funds are expended outside the Government Reporting Entity within fiscal year 2019 by maintaining some back-end administration role for third party delivery agents. Where funds can be spent within the fiscal year (e.g. home and workplace charging incentives, some fleet and medium/heavy-duty projects), funds would be allocated directly to BC Hydro for programs. Where that is not possible (e.g. public fast charging, hydrogen fuelling, some fleet and medium/heavy-duty program components), the Province will need to continue to work with third parties to allocate the funds to projects over time; and
- GCPE-HQ is planning on having the one-stop web portal available for the launch of the incentives in May / June 2019, with expansion of the portal to include the other program areas in time for fall 2019.



**Option 2:** ZEV program under one CleanBC brand: Province-utility (BC Hydro & Fortis) partnership on marketing, with other delivery partners only offering back-end administration where necessary for ease of consumer access (e.g. NCDA on vehicle incentives) or ensuring funds are outside of the Government Reporting Entity within the fiscal year (e.g. NRCan on public charging stations).

**Considerations:**

- Same benefits as Option 1, with the exception of including FortisBC from marketing.
- BC Hydro has indicated a concern with co-branding with FortisBC on ZEVs, as it could put its own brand at risk because of the association of FortisBC with fossil fuels through their natural gas offerings. GCPE-HQ and BC Hydro will need to agree on the final branding and one-stop-shop online portal design that can leverage the positive BC Hydro brand but still ensure provincial coverage across the two utility territories.

**Option 3:** Status Quo

**Considerations:**

- Not aligned with the CleanBC Transportation Budget 2019 submission intent to streamline program offerings under one CleanBC brand.
- Does not leverage full potential of utility partners.

**2. Marketing Funds**

**Option 1 (Recommended):** Seek Treasury Board approval for additional marketing funding for ZEV programming, either through GCPE-HQ or by re-profiling a portion of the existing ZEV program funding. BC Hydro also provides an increased contribution.

**Considerations**

- Higher cost than current planned GCPE-HQ investment. Total estimated marketing investment of \$2.2 million - \$2.8 million in 2019: Government contribution of \$1.9 million - \$2.3 million, and BC Hydro contribution of \$585k - \$785k.
- GCPE-HQ is planning to build the central online portal for ZEV programming and is currently proposing to brand it as [www.goElectricbc.ca](http://www.goElectricbc.ca). This will ultimately become the one stop shop for all ZEV program offerings in BC once all program elements were launched. For the June 2019 re-launch of the vehicle incentives the site will focus on incentives.
- One risk with the “Go Electric” contemplated by GCPE-HQ is the alienation of hydrogen (although hydrogen fuel cells are electric drive) and other low-carbon fuels (e.g., biofuels) from the public discourse on CleanBC transportation programs. This could hamper the ability of the Ministry to effectively promote and increase the adoption of the range of zero- and low-carbon fuels needed to meet the CleanBC targets. There may be an opportunity for the Ministry to intervene in the branding exercise to support a more fuel-neutral approach.
- Some local governments have indicated an interest in being able to top-up the provincial home and workplace charging incentives for their residents. These local

governments have indicated a preference for one-stop online portal where their incentives could be advertised and accessed by customers along-side CleanBC and utility incentives. This further emphasizes the value of the one-stop online portal.

- GCPE-HQ is also planning production and media buy for ZEV broadcast/digital advertising for late spring 2019. BC Hydro is planning a campaign around infrastructure, focused on “Dave’s electric road trip” around the province, for the fall of 2019.
- Any information related to incentives that are delivered through Emotive events would have the CleanBC branding, and, under the new model, BC Hydro has indicated they could work with Emotive partners to improve delivery of outreach activities.
- Aligned with BC Hydro proposal.
- GCPE-HQ has indicated that Treasury Board might be reluctant to approve more marketing funds out of the program budget. In this case, the Province would work with BC Hydro within the limits of the current combined funds available and scale the marketing efforts accordingly.

**Option 2:** Use existing approved marketing budgets between GCPE, BC Hydro and the ZEV programming. Await direction from GCPE-HQ on potential need to request re-allocation of ZEV program budgets to support greater marketing efforts.

#### **Considerations**

- Total estimated marketing investment of <\$1 million in 2019, including: BC Hydro planned \$285k; ZEV programming \$300k (a portion of which for Emotive); and GCPE-HQ planned spending on website, production and media buy for ZEVs.
- Still has same online portal and Spring 2019 marketing spend by GCPE-HQ, but lower ongoing funding towards marketing and outreach.
- This amount is already a significant increase from previous ZEV program marketing budgets.
- Provides higher investment than previous years towards ZEV program marketing, without needing to propose additional marketing budgets to Treasury Board.

### 3. Vehicle price eligibility for provincial incentives

**Option 1 (Recommended):** Reduce the MSRP eligibility threshold for base vehicle incentives to \$65,000, as per the CleanBC Transportation Budget 2019 submission. Allow the Minister to exempt some early-market vehicles from the eligibility threshold, such as hydrogen fuel cell vehicles and upcoming electric pick-up trucks.

#### **Considerations**

- One set threshold is less complicated to communicate to industry and consumers.
- Larger SUVs, pick-up trucks, and the longer-range ZEVs are expected to still be priced above \$45,000 as they come to market. Consumers in this market segment are expected to be more difficult to encourage to move into a ZEV.
- Placing the price eligibility cap at \$65,000 allows the Province to support customers only willing to purchase SUVs or light trucks in this early market where there a limited ZEV options. This ability to ensure customer affordability in these bigger vehicle classes will be critical to achieving the CleanBC targets in rural and northern regions.
- It reduces the price threshold slightly from the current \$77,000, indicating a move towards directing more funds towards the more affordable ZEVs.
- This would eliminate the Volvo plug-in hybrids that offer a low all-electric range and currently only make up a fraction of the ZEV program expenditures.
- Hydrogen fuel cell vehicles are still priced over \$70,000. In order to support their entrance into the ZEV market, it is proposed to keep the price eligibility threshold at \$77,000 for hydrogen fuel cell vehicles.

**Option 2:** Align the MSRP threshold with the federal limits: for vehicles with six seats or less, \$45,000 base-level MSRP up to \$55,000 for higher trim levels; for vehicle with over six seats, \$55,000 base-level MSRP up to \$60,000 for higher trim levels.

#### **Considerations**

- Federal eligibility requirements are more complicated for industry and consumers to understand, although general messaging on incentives in BC would be simplified (i.e. “aligned with federal incentives”).
- This would remove some more luxury brands such as BMW, Volvo, and Mercedes-Benz from the incentive program.
- This would reduce fiscal pressures of the program.
- It would reduce the overall ability of the program to support SUVs and pick-up trucks, a key market segment necessary for growth in ZEV uptake in BC.
- Lastly, it would remove any hydrogen fuel cell vehicles from the customer program, although these vehicles would still be eligible under the hydrogen fleets program for commercial fleet purchases.
- The Minister could allow exceptions to the threshold for early offerings in certain vehicle segments such as SUVs, pick-up trucks, and hydrogen fuel cell vehicles.

#### 4. Base vehicle incentive levels

**Option 1 (Recommended):** Allow full stacking of the incentives, such that vehicles that receive a federal incentive could also receive the full \$5,000 in provincial funding, resulting in a maximum combined incentive of \$10,000/ZEV.

##### **Considerations**

- Allows continuity and simplicity of the provincial vehicle incentives through 2019.
- Aligns with the Quebec approach. Quebec has indicated that they will be allowing full stacking of the incentives for the foreseeable future, resulting in a \$13,000/ZEV incentive.
- Meets the expectations of the public to-date that the incentives would be stacked.
- The higher incentives might be more important at this stage of market transformation as the program moves beyond the early movers to try to influence the broader, and more hesitant, general public.
- Does not allow the Province to benefit from some cost-savings on vehicle incentives.

**Option 2:** As soon as possible, implement a stacking rule on the vehicle incentives. For vehicles eligible for the federal incentive, the maximum combined incentive would be \$8,000 for vehicles with batteries above 15 kWh, and \$4,000 for vehicles with batteries below 15 kWh (i.e. a provincial contribution of \$3,000 and \$1,500, respectively). For vehicles priced above the federal threshold limits but still within the provincial threshold limits (\$65,000), maintain the current status quo (\$6,000; \$5,000; and \$2,500).

##### **Considerations**

- Allows customers purchasing the most affordable ZEVs to receive higher incentives than previously, while still maintaining continuity of the current level of incentives on vehicles not eligible for the federal incentive.
- Allows the Province to reduce fiscal pressures on the ZEV program, the savings of which can be re-allocated to the affordability incentive, infrastructure investments, or other government priorities.
- Increases complexity of communicating the program to consumers.
- For clarity, public materials on the provincial incentives will need to indicate a lower provincial incentive on vehicles priced below \$45,000 - \$60,000, and the higher provincial incentive for vehicles above the federal levels. This could generate some criticism of more provincial funding going towards higher priced vehicles than lower-priced vehicles.
- The Province could be criticised for pulling back support for the ZEV market in BC while at the same time introducing the *Zero Emission Vehicle Act*, even though BC's ZEV adoption rate is the highest in Canada at lower incentive levels.
- Until the revised provincial rules are approved and launched in the late May/early June time frame, customers purchasing ZEVs will have access to a combined maximum \$10,000/ZEV incentive. The program will likely experience increased customer complaints over the summer months from customers who were unable to get in during the short transition window.

**Option 3:** Remove the provincial vehicle incentive for vehicles that receive the federal incentive.

**Considerations**

- Provides a cost savings.
- Would be viewed negatively by stakeholders and the public, as the Province backing out of commitments made in CleanBC.

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## VI RECOMMENDATIONS:

CleanBC ZEV program design for fiscal year 2019/2020:

Design Element	Recommendation	Decision
1. Delivery Model	Option 1: ZEV program under one CleanBC brand: Province-BC Hydro partnership on marketing, other delivery agents on back-end administration where necessary (e.g. NCDA for incentives at point-of-sale, FortisBC for infrastructure in their service territory)	Approved / Not Approved
2. Marketing funds	Option 1: Seek Treasury Board approval for additional marketing funding for ZEV programming, either through GCPE-HQ or by re-profiling a portion of the existing ZEV program funding. (\$1.9 - \$2.3M)	Approved / Not Approved
3. Vehicle price eligibility	Option 1: Reduce the MSRP eligibility threshold for base vehicle incentives to \$65,000, as per the CleanBC Transportation Budget 2019 submission. Allow the Minister to exempt some early-market vehicles from the eligibility threshold, such as hydrogen fuel cell vehicles and upcoming electric pick-up trucks.	Approved / Not Approved
4. Base vehicle incentive	Option 1: Allow full stacking of the incentives, such that vehicles that receive a federal incentive could also receive the full \$5,000 in provincial funding, resulting in a maximum combined incentive of \$10,000/ZEV.	Approved / Not Approved

s.12; s.13



Honourable Michelle Mungall  
Minister of Energy, Mines, and Petroleum Resources

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### Appendices:

Appendix A Budget 2019 ZEV Program  
Appendix B BC Hydro EV Partnership Proposal

## Appendix A

**Table 1: Budget 2019 – ZEV Program**

<b>CleanBC Transportation Budget 2019</b>		<b>2019/20</b>	
<b>\$ thousands</b>	<b>Base</b>	<b>Contingency</b>	<b>Total</b>
<b>EMPR - CEV Program expansion: Light-Duty Vehicles</b>			
Basic vehicle incentives	\$ 41,506	\$ 10,000	\$ 51,506
Affordability top-up vehicle incentives	\$ -	\$ 9,460	\$ 9,460
Home & workplace charging incentives	\$ 4,807	\$ -	\$ 4,807
Public fast charging & hydrogen stations	\$ 20,000	\$ -	\$ 20,000
Fleet challenge	\$ 6,000	\$ -	\$ 6,000
Public outreach	\$ 300	\$ -	\$ 300
New EMPR Staff (2 FTEs)	\$ 315	\$ -	\$ 315
<b>EMPR Subtotal</b>	<b>\$ 72,927</b>	<b>\$ 19,460</b>	<b>\$ 92,388</b>
<b>EMPR - CEV Program expansion: Medium/Heavy-Duty, Port/Airport ground equipment, Bus, Marine, Rail, etc.</b>			
Pilot projects	\$ 5,000	\$ -	\$ 5,000
Vehicle incentives	\$ 2,500	\$ -	\$ 2,500
Infrastructure & Fuels investments	\$ 2,500	\$ -	\$ 2,500
New EMPR Staff (2 FTEs)	\$ 315	\$ -	\$ 315
<b>EMPR Subtotal</b>	<b>\$ 10,315</b>	<b>\$ -</b>	<b>\$ 10,315</b>
<b>EMPR - CEV Program expansion: General</b>			
CEV Jobs Training	\$ 1,000	\$ -	\$ 1,000
CEV Advanced Research & Commercialization	\$ 5,000	\$ 10,000	\$ 15,000
Research, Analysis, Reporting	\$ 300	\$ -	\$ 300
<b>EMPR Subtotal</b>	<b>\$ 6,300</b>	<b>\$ 10,000</b>	<b>\$ 16,300</b>
<b>CleanBC Transportation Programs TOTAL</b>	<b>\$ 89,542</b>	<b>\$ 29,460</b>	<b>\$ 119,002</b>
<b>EMPR - Zero-Emissions Vehicle Act (ZEVA)</b>			
Studies, Enhancement to online reporting tool	\$ 500	\$ -	\$ 500
New EMPR Staff (5 FTEs)	\$ 805	\$ -	\$ 805
<b>CleanBC Transportation - ZEVA TOTAL</b>	<b>\$ 1,305</b>	<b>\$ -</b>	<b>\$ 1,305</b>



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## **BC Hydro Briefing Note**

### **EV Partnership Proposal**

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## **MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES**

### **BRIEFING NOTE FOR INFORMATION**

- I PREPARED FOR:** Honourable Michelle Mungall, Minister of Energy, Mines and Petroleum Resources
- II ISSUE:** Contacting preferred expert advisors for Phase 2 of the Comprehensive Review of BC Hydro (Review)

### **III BACKGROUND:**

As part of the Review, the Ministry of Energy, Mines and Petroleum Resources (EMPR) is recommending a staff-led approach for the Review supported by expert advisors. Eleven preferred experts have been proposed to participate in the Review.

### **IV DISCUSSION:**

In anticipation of Cabinet deciding to proceed with the Review based on the recommended draft Terms of Reference and proposed approach, EMPR staff would like to contact experts as soon as possible following the decision. This will ensure that experts will be able to contribute advice early in the Review process.

To demonstrate the importance of assisting in the Review, having the Minister contact three of the preferred experts may increase the likelihood of their willingness to participate. Attached is a proposed invitation script that could be used when contacting experts to canvass their interest and availability (Appendix 1).

The biographies of the three suggested experts is included below, together with staffs' reasons for the Minister to make direct contact (the full list of preferred experts is attached as Appendix 2):

#### **1. Margaret Kenequanash - Chief Executive Officer – Wataynikaneyap Power (Ontario)**

Margaret Kenequanash oversees Wataynikaneyap Power, which is owned by 22 First Nation communities. Margaret devotes her energy to connecting remote First Nation communities to the provincial power grid, and promoting the success of Wataynikaneyap Power's unprecedented partnership between First Nations and Fortis Ontario Inc. With more than 25 years of experience, Margaret has worked with First Nation Tribal Councils in senior positions, was Chief of North Caribou Lake First Nation, and has significant experience in the fields of financial, health and project management, as well as supporting community development initiatives.

Reasons for Minister to directly contact Ms. Kenequanash:

- Ms. Kenequanash would be the Review's sole expert on opportunities for Indigenous peoples arising from transformative changes to traditional utility models. It is important to secure her participation.
- The Government has made a commitment to true, lasting reconciliation with First Nations in British Columbia by fully adopting and implementing the United Nations Declaration on the Rights of Indigenous Peoples and the Calls to Action of the Truth and Reconciliation Commission. Direct contact by the Minister would demonstrate commitment to these principles and commitments.
- Ms. Kenequanash is based in Ontario, so she may not be aware of the Review. Also, she will have additional logistical considerations as compared to experts located within the Province.

**2. David Bibby – Head of Global Digital Services – Finning International**

David Bibby is a future-focused technology executive with over 25 years of experience in strategic technology leadership within growth-oriented global organizations. He has been the Head of Global Digital Service (Finning Digital) at Finning International since January 2016. Prior to this, he has worked as the Vice President, Information Technology, at VanCity, and the Senior Vice President of Information Technology at Canaccord Genuity Corporation.

Launched in 2016 as an internal tech start-up, Finning Digital operates on the edge of Finning International, the world's largest Caterpillar dealer. Like much of the Canadian economy, Finning International was grappling with declining sales amidst falling oil and gas prices and lower demand from the mining sector. Its customers were looking for ways to decrease costs and increase efficiencies. Finning Digital is leveraging digital technology to connect machines, people and sites, transact business and provide new solutions to transform their customers' performance. They support Finning International in connecting data and technology with the expertise of employees world-wide to deliver an enhanced customer experience and improve customer outcomes. Finning Digital's initiatives include IoT or machine-to-machine technology, which allows intelligent computer systems to transmit data and respond accordingly in real time without any human interaction.

Reasons for Minister to directly contact Mr. Bibby:

- Mr. Bibby is a compelling and inspiring speaker and as such, could help stimulate the transformative thinking needed to make the Review a success.
- Mr. Bibby is a highly sought-after expert in his field. A phone call from the Minister will highlight the Ministry's desire for him to participate in the Review and help in securing his availability for participation in the Review.
- Amongst the list of preferred experts, Mr. Bibby brings a unique perspective from his experience leveraging technological innovations to take advantage of industry disruption.

### **3. Gwenne Farrell – former Vice President of MoveUP**

Gwenne Farrell worked as a Vice-President of MoveUp from May 2005 until November 2018. Previous to that she worked as a Financial Analyst with BC Hydro. In the spring of 2007, Gwenne was also elected to the office of Secretary-Treasurer of Canadian Office and Professional Employees Union, Local 378's National Union. Gwenne chaired a number of MoveUP Committees, including the Health and Safety, Convention, and Arbitration Review and Education Committees. She sat on the New West District Labour Council Executive and the Canadian Labour Congress' Energy Task Force. Gwenne has a Bachelor's degree in Economics from Simon Fraser University.

#### Reasons for Minister to directly contact Ms. Farrell:

- Direct contact by the Minister would demonstrate the Government's commitment to the interests of workers as a component of the Review.

### **V CONCLUSION:**

If the Minister contacts the three suggested experts, Margaret Kenequanash, David Bibby and Gwenne Farrell, it would provide the highest chance of retaining these experts for the Review, assuming that they are available to participate. EMPR staff would contact the remaining eight preferred experts.

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#### Attachments:

Appendix 1: Proposed Expert Advisor Invitation Script  
Appendix 2: Biographies of Preferred Expert Advisors

## **Appendix 1: Expert Advisor Invitation Script**

### **Introduction**

- The reason I am calling today is to let you know about some work that Government and BC Hydro have started related to Government's long-term strategy for BC Hydro.
- We are looking for expert advice and opinions that will feed into this process. Your name has come up as someone who would greatly add to the process in the area of [customize a short script for each expert].
- I would like to take a few minutes to let you know a bit more about this process and to find out if you would be interested in adding your voice.

### **Background**

- One of the first things that I was mandated to do when I became Minister was to undertake a Comprehensive Review of BC Hydro. Given Government's overarching policy commitments to make life more affordable, and building a strong, sustainable, innovative economy, we decided to take a two phase approach:
  1. a **Structural Review**, to reduce BC Hydro costs, update its rate forecast, and re-empower the British Columbia Utilities Commission (BCUC) to oversee BC Hydro's costs and activities; and
  2. a **Transformative Review**, to explore global energy sector shifts and provincial strategies that will fundamentally impact the way BC Hydro does business.
- The Structural Review – the first phase – was undertaken by BC Hydro and Government in 2018 and the results were announced in February 2019. As a result of the Review, BC Hydro is now forecasting that rate increases will be below the projected rate of BC inflation for the next five years. The BCUC will be setting BC Hydro rates starting this year.
- The Transformative Review – the second phase – will take a longer-term and broader view. It will be informed by new Government strategies, including CleanBC, and is intended to position BC Hydro for long-term success within a rapidly evolving international and continental energy sector.
- Phase 2 will inform the development of BC Hydro's Integrated Resource Plan, which will be submitted to the BCUC by early 2021.

### **Phase 2 Review**

- The proposed Transformative Review has four areas of focus, reflecting Government's policy priorities as well as the opportunities and challenges facing BC Hydro.
- The first area of focus is "Thriving in an Evolving Electricity Sector", and would look at how BC Hydro can respond to – and benefit from – rapid changes in technology, business models, and customer expectations.
- The second area of focus is "Supporting CleanBC", which would look at how BC Hydro can support electrification of transportation, buildings, and industry to reduce greenhouse gas emissions.



- The third area of focus is “Leveraging Our Strengths”, and would look at how BC Hydro and Powerex can use their experience in energy trading and utility management to capitalize on new business opportunities for the benefit of their ratepayers.
- The fourth area of focus is “Opportunities for Indigenous Nations and Communities”, and would look at potential future opportunities or roles for Indigenous Nations and communities in the development, ownership, or operation of electrical infrastructure or services that would enhance Indigenous Nations’ participation in the energy sector.

### **Expert Involvement**

- The Transformative Review is a collaborative BC Hydro and Government process, with several outside expert advisors providing their perspective on the four areas of interest.
- This approach allows us to make full use of the expertise already in Government, BC Hydro, and Powerex while benefiting from a wide range of perspectives from outside experts.
- The process I am proposing would also seek public input on a draft report before recommendations are made to Government.
- The involvement of expert advisors may include participation in strategy workshops, providing advice to the working groups tasked with investigating the areas of interest, feedback on the interim and final reports, and engagement with Review decision makers (Advisory Group, Review Committee, Cabinet).
- The Ministry is planning to release the final report publicly in spring 2020. Most of the work where experts will add value is planned to occur between late fall and potentially into the new year.

### **Invitation and Next Steps**

- Government has not announced the Phase 2 Terms of Reference publicly yet, but I wanted to make this initial contact to let you know about this opportunity before an official Phase 2 launch. You would add a necessary voice to this process that will assist us getting to workable actions to ensure BC Hydro’s sustainability in the future for the benefit of all British Columbians.
- If you could get back to Les MacLaren, ADM of the Electricity and Alternative Energy Division, at 778-698-7183, or [Les.MacLaren@gov.bc.ca](mailto:Les.MacLaren@gov.bc.ca), in the next couple of days with your response that would be greatly appreciated. If you are interested in the Phase 2 Review, Les will have his staff follow-up with you on next steps.
- Thank you.

## **Appendix 2: Biographies of Preferred Expert Advisors**

s.22

### **Liisa O'Hara – Former BCUC Commissioner**

Liisa O'Hara served as Commissioner to the BCUC for 10 years. As BCUC Commissioner, Liisa participated in oversight of the Province's natural gas and electricity utilities, the regulation of rates, and the development of new facilities. As Commissioner, she also developed a strong interest in clean energy solutions.s.22

s.22

### **Leah Lawrence – President and Chief Executive Officer of Sustainable Development Technology Canada**

Leah Lawrence is a lifelong advocate for engineering, entrepreneurship and the environment and the President and CEO of Sustainable Development Technology Canada (SDTC). She is a past Chair of the Calgary Chamber of Commerce and the past President of the Association of Professional Engineers and Geoscientists of Alberta (APEGA). In 2018, she received the Centennial Leadership Award, APEGA's highest distinction for a member who has achieved exemplary achievements in their career. Leah has her Bachelor of Applied Science from the University of Regina and her Master of Economics from the University of Calgary. She is also a Fellow of the Canadian Academy of Engineering and a Fellow of Engineers Canada.

### **Stephen Koch – Director of Emerging Issues, Canadian Electricity Association**

Stephen Koch works with senior Canadian Electricity Association members and industry experts to identify, predict, and prepare for technological innovations and potentially disruptive market changes across the energy sector. s.22

s.22

### **Margaret Kenequanash – Chief Executive Officer – Wataynikaneyap Power (Ontario)**

Margaret Kenequanash oversees Wataynikaneyap Power, which is owned by 22 First Nation communities. Margaret devotes her energy to connecting remote First Nation communities to the provincial power grid, and promoting the success of Wataynikaneyap Power's unprecedented partnership between First Nations and Fortis Ontario Inc. With more than 25 years of experience, Margaret has worked with First Nation Tribal Councils in senior positions, was Chief of North Caribou Lake First Nation, and has significant experience in the fields of financial, health and project management, as well as supporting community development initiatives.

### **David Bibby – Head of Global Digital Services – Finning International**

David Bibby is a future-focused technology executive with over 25 years of experience in strategic technology leadership within growth-oriented global organizations. He has been the Head of Global Digital Service (Finning Digital) at Finning International since January 2016. Prior to this, he has worked as the Vice President, Information Technology, at VanCity, and the Senior Vice President of Information Technology at Canaccord Genuity Corporation.

Launched in 2016 as an internal tech start-up, Finning Digital operates on the edge of Finning International, the world's largest Caterpillar dealer. Like much of the Canadian economy, Finning International was grappling with declining sales amidst falling oil and gas prices and lower demand from the mining sector. Its customers were looking for ways to decrease costs and increase efficiencies. Finning Digital is leveraging digital technology to connect machines, people and sites, transact business and provide new solutions to transform their customers' performance. They support Finning International in connecting data and technology with the expertise of employees world-wide to deliver an enhanced customer experience and improve customer outcomes. Finning Digital's initiatives include IoT or machine-to-machine technology, which allows intelligent computer systems to transmit data and respond accordingly in real time without any human interaction.

### **Blake Shaffer – Adjunct Assistant Professor – University of Calgary, Department of Economics**

Blake Shaffer has extensive experience in the energy sector, with a specific focus on electricity markets. Blake enjoyed a 15-year career that has taken him from the trading arm of BC Hydro, to Lehman Brothers and Barclays Capital in New York as a senior energy trader, and finally as Director of Energy Trading at Transalta Corporation in Calgary, Alberta. s.22

s.22

### **Caitlin Liotiris – Energy Strategies Consultant**

Caitlin Liotiris leads many of Energy Strategies' efforts in electricity market development, regional transmission planning and policy, and energy procurement arenas. Caitlin provides clients with a unique combination of technical capabilities and energy policy perspective. Her primary work efforts include advocacy at regional forums, performing market and regulatory evaluations, and facilitating the incorporation of new policies and market structures into the firm's modeling tools. She applies her leadership, management, and broad industry perspective in directing and enhancing Energy Strategies' strategic thinking, research, and analytical capabilities.

### **Dan Woynillowicz – Policy Director – Clean Energy Canada**

Dan Woynillowicz is an accomplished non-profit leader working to identify and implement climate solutions. An experienced analyst, strategist and advocate, he has significant knowledge and experience in the fields of energy and environmental policy. s.22

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### **Gwenne Farrell – former Vice President of MoveUP**

Gwenne Farrell worked as a Vice-President of MoveUp from May 2005 until November 2018. Previous to that she worked as a Financial Analyst with BC Hydro. In the spring of 2007, Gwenne was also elected to the office of Secretary-Treasurer of Canadian Office and Professional Employees Union (COPE), Local 378's National Union. Gwenne chaired a number of MoveUP Committees, including the Health and Safety, Convention, and Arbitration Review and Education Committees. She sat on the New West District Labour Council Executive and the Canadian Labour Congress' Energy Task Force. Gwenne has a Bachelor's degree in Economics from Simon Fraser University.

**Mark Jaccard – Professor – Simon Fraser University School of Resource and Environmental Management**

Mark Jaccard has been a professor since 1986 in the School of Resource and Environmental Management at Vancouver's Simon Fraser University. The only exception is 1992 to 1997, when he took a leave of absence to serve as Chair and Chief Executive Officer of the BCUC.

His PhD is from the Energy Economics and Policy Institute at the University of Grenoble. He has published over 100 academic papers, most of these related to his principal research focus: the design and application of energy-economy models that assess the effectiveness of sustainable energy and climate policies. For this career research, he was named a Fellow of the Royal Society of Canada in 2009 and British Columbia's Academic of the Year in 2008. He has contributed to several major processes and assessments, including the Intergovernmental Panel on Climate Change (93-96 and 2010-2012), the China Council for International Cooperation on Environment and Development (1995-2001 and 2007-2009), Canada's National Roundtable on the Environment and the Economy (2006-2009), British Columbia's Climate Action Team (2007-2009), and the Global Energy Assessment (2008-2012).

In 2006, his book, Sustainable Fossil Fuels, won the Donner Prize for top policy book in Canada. At Simon Fraser University, he teaches graduate and undergraduate versions of an interdisciplinary course in energy and materials sustainability, covering basic physics, technologies, economics, policy and human cognition and behavior.

## MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES

### BRIEFING NOTE FOR DECISION

**I PREPARED FOR:** Honourable Michelle Mungall, Minister of Energy, Mines and Petroleum Resources

**II ISSUE:** CleanBC Home Improvement Financing

### III BACKGROUND:

The Clean BC Better Homes and Better Buildings programs provide incentives to encourage British Columbians to make energy efficiency and fuel switching upgrades to their homes and businesses. CleanBC committed to also providing “targeted low-interest financing” for energy efficiency and fuel switching.

Low-interest financing options include:

- On-bill financing (OBF) - where the utility acts as the financial lender and repayment is done as part of the utility bill. “Pay As You Save” is one specific OBF model premised on the idea that energy bill savings resulting from energy efficiency measures will cover the finance payments.
- Third party financing - where a financial institution (e.g. national bank, credit union or internet-based lender) works with government or utilities to offer specialized loans for energy efficiency upgrades.

In 2013, BC Hydro and FortisBC ran OBF pilots (upon Provincial direction through the *Clean Energy Act*) which were undersubscribed and costly. Given this experience and the commitment to launch a financing program this fiscal year, the Ministry has been exploring options for a third party financing model. In May, a Request for Information was issued to financial institutions seeking input on how best to structure a third party financing offer. The responses confirmed an interest among financial institutions in administering such an offer, indicated that an interest rate buy-down was the preferred credit enhancement mechanism, and recommended that multiple channels of access be considered, including through contractors. Ministry staff are now seeking direction to proceed to a Request for Proposals (RFP) from financial institutions to administer a third party financing offer.

### IV DISCUSSION:

The 2013 OBF pilots conducted in 2013 in Colwood (BC Hydro) and the Regional District of Okanagan-Similkameen (FortisBC) had poor uptake and disproportionately high implementation costs. The high costs were primarily attributed to the use of manual processing, whereas full provincial rollout would involve billing system upgrades that were expected to lower the cost per loan. FortisBC and BC Hydro estimated the information technology investment required for a provincial rollout would be \$1M for each utility. Both utilities currently have the same billing systems as in 2013, so upgrade costs today are expected to be similar.

Both BC Hydro and FortisBC are resistant to OBF given their negative past experiences. The utilities have argued that they do not have the expertise, processes, or software tools to optimally implement or run a financing program integrated with their billing systems. Significant investments in time as well as funding would be required.

The OBF Pay As You Save model is also not compatible with CleanBC as not all Better Homes and Better Buildings measures result in bill savings (e.g. some fuel switching to heat pumps can result in marginally higher energy bills). The third party financing model, on the other hand, is flexible, can build off existing loan infrastructure and processes, and can be implemented in a relatively short time-frame with no resistance from program partners.

Many of the features that have been identified as success factors by proponents of OBF can be achieved through third party financing:

- Attractive interest rates – the Province can buy down interest rates and has already secured CleanBC funds for this purpose;
- Ease of use and quick approval – financial institutions have on-the-spot approval systems and mobile tools in place already;
- Supplier buy-in – many contractors already use third party financing and will be happy to use a lower-interest option as a sales tool;
- Strong brand equity or trust in the provider – partnership with the Province can provide this trust; and
- Relaxed underwriting criteria – although the initial offer will likely only include an interest rate buy-down, future self-serve options can explore use of a loan loss reserve fund to increase lenders' risk tolerance.

Based on responses to the Request for Information and from preliminary engagement with key stakeholders (i.e. program partners and contractors), the Ministry is envisioning the following draft program design:

- Subsidized interest rate with no money down;
- Initial focus on the residential sector, with small business offers added in future; and
- Two primary channels of access: contractor-driven offer (where loan approval process is facilitated in a customer's home by a program registered contractor); and a self-serve web-based option to ensure broad access across BC.

An RFP for delivery of this service can be issued in June with a planned launch of fall 2019 for the initial residential offer, and spring 2020 for the small business offer.

## **V OPTIONS:**

### **Option 1: Proceed with third party financing RFP as planned**

#### **Pros:**

- Can be implemented in a relatively short time-frame, delivering on CleanBC commitments in the near-term.
- Can build off existing loan infrastructure, processes, and software, and therefore have relatively low administrative costs.
- Provides flexibility to develop multiple channels of access, e.g. through contractors and a self-serve web portal.

**Cons:**

- Participants cannot service loan payments directly through their utility bill.

**Option 2: Explore options for on-bill financing**

**Pros:**

- Participants can service loan payments directly through utility bill.
- Energy savings resulting from financed energy efficiency retrofits would directly offset on-bill loan payments.

**Cons:**

- Some participants using OBF for fuel-switching would not have energy savings to offset on-bill payments.
- OBF would encounter significant resistance from utilities, likely requiring regulatory amendments to drive implementation.
- OBF would require costly utility billing system upgrades, and development of lending expertise and software tools, resulting in higher overall administration costs.
- A launch date would likely be at least a year away.

**Option 3: Do not proceed with home improvement financing**

**Pros:**

- Conserves Ministry time and resources, allowing more focus on expansion of rebates to additional sectors.

**Cons:**

- Does not fulfill CleanBC plan commitment.
- Lost opportunity to influence homeowners that prefer financing energy efficiency improvements or fuel-switching.

**VI RECOMMENDATION: Option 1: Proceed with third party financing RFP as planned**

Approved / Not Approved



Honourable Michelle Mungall  
Minister of Energy, Mines and  
Petroleum Resources

July 3, 2019

Date

**DRAFTED BY:**

Katherine Muncaster, A/Dir, EEB  
778-698-7180

**APPROVED BY:**

Nat Gosman, A/Exec. Dir., BE ✓  
Les MacLaren, ADM, EAED ✓  
Dave Nikolejsin, DM ✓



## MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES

### BRIEFING NOTE FOR INFORMATION

**I PREPARED FOR:** Honourable Michelle Mungall, Minister of Energy, Mines and Petroleum Resources

**II ISSUE:** Phase 2 of the BC Hydro Comprehensive Review

### III BACKGROUND:

In May 2019, Cabinet approved the Terms of Reference for Phase 2 of the BC Hydro Comprehensive Review (Phase 2), which sets out four areas of focus: Supporting CleanBC; Thriving in an Evolving Electricity Sector; Leveraging Our Strengths; and Opportunities for Indigenous Nations and Communities. At the same time, Cabinet approved an internal Phase 2 process that would utilize the extensive knowledge of Ministry of Energy, Mines and Petroleum Resources (EMPR) and BC Hydro staff and would be supplemented by input from expert advisors.

BC Hydro and EMPR staff are preparing for the launch of Phase 2, which includes the public release of the Terms of Reference (Attachment 1), soliciting input from expert advisors, and initiating stakeholder engagement on the key trends and issues in the energy market.

### IV DISCUSSION:

#### Terms of Reference

The launch of Phase 2 will be announced through an InfoBulletin supplemented with updates on both the EMPR and Electricity and Alternative Energy Division (EAED) websites. The EMPR page will state the objective of the Phase 2 review, while the EAED website, which currently houses information on Phase 1, will be expanded to include information on Phase 2. It will include a link to the Terms of Reference and will refer to energy industry experts that will guide the Review (Attachment 2).

#### Expert Advisors

Eleven potential advisors were selected to provide input across a number of fields relevant to the four focus areas of Phase 2 (Attachment 3). Of these eleven, eight have agreed to participate (Liisa O'Hara, Mark Jaccard, David Bibby, Steven Koch, Blake Shaffer, Caitlin Liotiris, Dan Woynillowicz and Gwenne Farrell). Two individuals s.22 - are unavailable.s.22 will let Ministry staff know whether she will be available to participate in Phase 2 as an advisor during the week of July 2, 2019.

The bios for advisors that could replace s.22 are in Attachment 4.

At the outset, expert advisors will be asked to review a joint BC Hydro – EMPR Environmental Scan (EnviroScan), which describes the emerging energy trends and issues and to provide their views on which of the trends would be the most impactful / relevant to BC Hydro.

#### Additional Opportunities for Public Engagement

There is growing interest in understanding the Phase 2 Review process as well as organizations seeking opportunities to provide input into the Review. EMPR staff will arrange two 2-hour engagement sessions in late August/early September. Representatives from key stakeholder groups will be invited to attend either session where they will hear about Phase 2 process and Terms of Reference. At the two meetings, EMPR staff will solicit feedback from stakeholders on the following questions:

1. Do you have any suggestions on how BC Hydro can remain sustainable in the future while delivering benefits to all British Columbians?
2. Reflecting specifically on the Phase 2 Terms of Reference:
  - Do you have any suggestions on how to position BC Hydro for the future so that it can further support CleanBC?
  - With the changes occurring in the electricity sector, and what steps can BC Hydro take so that British Columbians can benefit from new technologies and markets?
  - Are there other areas of strength that BC can leverage with respect to (clean) energy trade?
  - What type of opportunities can BC Hydro provide Indigenous Nations within the energy sector?
  - Do you have any suggestions on how BC Hydro currently works with communities and whether there are alternate opportunities for the benefit of both parties?

Potential stakeholder groups include:

- BC Business Council
- BC Investment Management Corp.
- FortisBC
- Columbia Power Corp. / Columbia Basin Trust
- Clean Energy BC
- Brookfield Renewables
- Innergex
- City of Vancouver
- Association of Major Power Consumers
- Mining Association of BC
- Commercial Energy Consumers
- BC Old Age Pensioners' Organization
- Council of Forest Industries
- BC LNG Alliance
- Canadian Association of Petroleum Producers

- Pembina Institute
- BC Sustainable Energy Association / Sierra Club
- Suzuki Foundation

A similar but separate engagement process will be arranged with the following Indigenous groups:

- Assembly of FN
- Union of BC Indian Chiefs;
- First Nations Summit;

These stakeholders may also choose to provide written submissions to the Ministry for consideration.

## **V CONCLUSION:**

Government Communications and Public Engagement will be managing the roll out of the InfoBulletin announcing the BC Hydro Phase 2 Terms of Reference and updating EMPR websites. Contracting is well underway with the eight confirmed advisors, and additional experts could replace those who are not able to participate. Timely engagement on the energy trends and issues that will shape BC Hydro's future will provide interested stakeholders with an opportunity to be involved in Phase 2 at an early stage.

### **DRAFTED BY:**

Amy Sopinka, Dir., TIB, EAED  
778-698-7280

### **APPROVED BY:**

Paul Wieringa, Exec. Dir., EPB ✓  
Les MacLaren, ADM, EAED ✓  
Dave Nikolejsin, DM ✓

Attachments (4)

## **Attachment 1**

### **Terms of Reference**

#### **Comprehensive Review of BC Hydro – Phase 2**

##### **Context**

The 2017 Mandate Letter to the Minister of Energy, Mines and Petroleum Resources directs the ministry to undertake a Comprehensive Review of BC Hydro and to work with BC Hydro to develop a refreshed plan to keep rates affordable over the long-term.

In June 2018, Government announced a two-phase approach for carrying out the Minister's mandate:

- Phase 1 - examine opportunities to keep BC Hydro's rates affordable by increasing BC Hydro's revenues, reducing its costs and protecting ratepayer interests by re-empowering the British Columbia Utilities Commission (BCUC) to oversee BC Hydro's costs and activities; and
- Phase 2 - explore global energy sector shifts and provincial strategies that could transform the way BC Hydro does business.

Phase 1 of the Comprehensive Review of BC Hydro is now complete. On February 14, 2019, the Province released a final report on this first phase, which details actions to ensure sound financial and regulatory oversight of BC Hydro, and a five-year rate forecast reflecting cost and revenue strategies to keep rates affordable.

In December 2018, Government released its CleanBC plan, a combined economic development, energy and climate strategy. CleanBC offers a pathway that will enable our Province to seize opportunities for innovation and growth. To meet the goals in CleanBC, we must increase our use of cleaner energy, including electricity generated from renewable sources, to shift away from our reliance on fossil fuels for transportation, industry, and buildings. CleanBC's actions will get British Columbia (BC) approximately 75% of the way to legislated 2030 greenhouse gas (GHG) reduction targets. Achieving the remaining 25%, and ultimately the 2040 and 2050 targets, will require additional clean energy.

##### **Objective**

The objective of the Comprehensive Review's second phase is to develop recommendations for how BC Hydro can accomplish the provincial policy objectives laid out in the CleanBC plan,

including how BC Hydro can support meeting BC's legislated 2030, 2040, and 2050 GHG reduction targets in a manner that ensures BC Hydro sustainability in the future for the benefit of British Columbians.

The Review will consider the potential impacts of North American energy and market trends, the needs of current and future BC Hydro customers, evolving technologies and utility structures, the affordability of electricity to consumers, and opportunities to involve indigenous peoples and communities.

The recommendations from the Phase 2 Review will be used to inform BC Hydro's Integrated Resource Plan that will be filed with the BCUC in early 2021.

## **Governance**

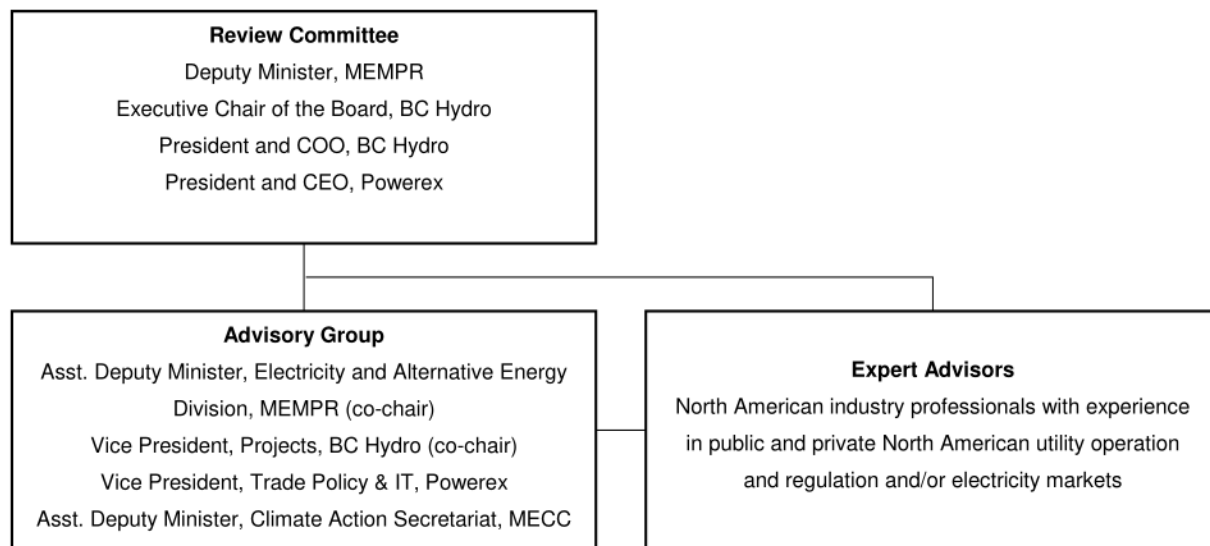
Overseeing the Phase 2 Review process will be a Review Committee consisting of:

- Deputy Minister of the Ministry of Energy, Mines and Petroleum Resources (MEMPR),
- Executive Chair of the BC Hydro Board of Directors,
- President and Chief Operating Officer (COO) of BC Hydro, and
- Chief Executive Officer (CEO) of Powerex.

This Review Committee is responsible for ensuring that the objective of the second phase of the Review is met.

An Advisory Group consisting of senior staff from MEMPR, Ministry of Environment and Climate Change (MECC), BC Hydro, and Powerex will provide advice to the Review Committee, draft material for their consideration and prepare a final report that includes the recommendations of the Review Committee. Industry experts that have extensive experience in public and private North American utility operation, regulation, and/or electricity markets will inform and guide Review Committee recommendations.

## Governance Chart - Phase 2 Review:



## **Areas of Interest**

The Review Committee, with the support of the Advisory Group and advice from industry experts, is tasked with addressing questions within four areas of interest, with the goal of gathering the information necessary to develop a final report with recommended actions for the utility.

### **1. Supporting CleanBC**

CleanBC is central to reducing GHG emissions while also meeting BC's energy and economic development goals. Any recommended changes to BC Hydro must achieve the electrification goals set out in CleanBC to meet our legislated 2030 GHG reduction targets and lay the groundwork for additional GHG emissions reductions to meet the Province's legislated 2040 and 2050 emissions targets. Achieving the electrification targets will support the production of lower carbon natural resources for export. The Review will identify additional opportunities to reduce GHG emissions through fuel-switching, electrification, energy efficiency and conservation and will include responses to the following questions:

- What is required to ensure that new customer demand for access to clean electricity from the grid is achieved in an efficient, cost-effective, and timely manner?

- How should the costs of this new access be allocated between existing and new customers? Is there a role for government(s) in financing the infrastructure to provide this access?
- What can/should BC Hydro do to encourage fuel switching to increase the use of clean electricity as an alternative to fossil fuels and reduce GHG emissions?
- How can BC Hydro and the Province's CleanBC Better Homes/Better Buildings program coordinate further to address climate change by reducing GHG emissions and meeting CleanBC objectives?

## **2. Thriving in an Evolving Electricity Sector**

The Phase 2 Review final report will describe the trends in technology, changes in electricity markets and transformative approaches used by other electric utilities (e.g. distributed generation, microgrid and digital utilities). Recommendations will address how BC Hydro must adapt to a broad range of future scenarios and evolve its existing structure, services, and assets in support of ensuring BC Hydro's sustainability for the benefit of all British Columbians. At a minimum, the Phase 2 Review final report will address the following questions:

- Which industry trends are most likely to have an impact on BC Hydro?
- What actions are needed to ensure that BC Hydro is able to benefit from new markets and integrate new technologies while keeping rates affordable?
- Are there opportunities for BC Hydro to provide customers with more energy choices and information?
- Are changes needed to BC Hydro's governance structure to allow the utility to pursue new business opportunities?

## **3. Leveraging Our Strengths**

BC Hydro's wholly-owned subsidiary Powerex currently buys and sells electricity in other markets throughout the Western Interconnection. The Phase 2 Review will consider whether there are opportunities to enable increased participation in external markets to the benefit of BC Hydro ratepayers. The Phase 2 Review final report will make recommendations that consider each of the following questions:

- What constraints, if any, reduce Powerex's ability to trade electricity in the Western Interconnection today or in the future?
- Is there an opportunity or actions that can be taken that will enable Powerex to expand its business in markets outside of BC, further leveraging BC Hydro's clean generation and/or Powerex's expertise in energy markets?
- How should cost effective clean energy located outside of BC be considered in BC Hydro's planning and operations?
- Is there an opportunity to own and/or operate assets outside of BC Hydro's current service area that would benefit BC Hydro's ratepayers?

#### **4. Opportunities for Indigenous Nations and Communities**

In support of BC's commitment to reconciliation with Indigenous Peoples, the Review will consider future opportunities or new roles for Indigenous Nations in the development, ownership, or operation of electrical infrastructure or services. In relation to BC Hydro's existing business and proposed new lines of business, the Phase 2 Review final report will include recommendations to enhance Indigenous Nations' participation in the energy sector. The Review will also consider how BC Hydro currently works with communities and explore alternatives.

For each of these four areas of interest, the Expert Advisors will provide advice on opportunities for program and rate design, changes to BC Hydro's governance structure and regulatory framework, and other opportunities for improved organizational readiness to enhance BC Hydro's financial and operational sustainability to keep rates affordable over the long term.

#### **Process**

The Review Committee and Advisory Group will undertake the Review June 2019 to November 2019 utilizing the advice of the Expert Advisors as and when needed. In late fall 2019, stakeholders and Indigenous Peoples will be asked to provide feedback on interim Phase 2 results.



A final report will be completed in early 2020 and will outline the Review Committee's recommendations on policy, governance, and strategy to ensure BC Hydro's sustainability and ability to contribute to CleanBC and other Government policy objectives.

## **Attachment 2**

### **BC Hydro Review Phase 2**

Draft language to update the EMPR and EAED webpages when TOR is released publicly

#### **UPDATE #1**

Link: <https://www2.gov.bc.ca/gov/content/governments/organizational-structure/ministries-organizations/ministries/energy-mines-and-petroleum-resources>

#### **Phase 2 of the Comprehensive Review of BC Hydro**

Learn more about the steps being taken to create a strategy, for the benefit of British Columbians, for BC Hydro to continue to provide its customers with clean energy at competitive rates through the continuing evolution of BC Hydro in response to changes in climate, consumer demand, technology and British Columbia's commitment to reconciliation with Indigenous Nations.

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#### **UPDATE #2**

Link: <https://www2.gov.bc.ca/gov/content/industry/electricity-alternative-energy/electricity/bc-hydro-review>

#### **Phase 2 of the Comprehensive Review of BC Hydro**

The objective of Phase 2 of the Comprehensive Review of BC Hydro is to create a strategy, for the benefit of British Columbians, for BC Hydro to continue to provide its customers with clean energy at competitive rates through the continuing evolution of BC Hydro in response to changes in climate, consumer demand, technology and British Columbia's (BC's) commitment to reconciliation with Indigenous Nations.

Following completion of Phase 1 of the Review of BC Hydro in February 2019 (see below for more information), Government initiated Phase 2 in June 2019. This second phase will be a broad, transformational review that will examine some of the significant changes and shifts taking place in the British Columbia and continental energy sectors and will produce recommendations to strategically position BC Hydro and the Province for long-term success, including BC Hydro's role in achieving the electrification goals set out in CleanBC. Phase 2 will leverage BC Hydro's strengths and focus on:

- BC Hydro's role in supporting CleanBC and meeting the Province's legislated 2030, 2040, and 2050 greenhouse gas reduction targets;

- future opportunities or new roles for Indigenous Nations and for communities in the energy sector;
- integrating new technologies and electricity market trends into BC Hydro's structure, services and assets while keeping rates affordable; and
- new opportunities for BC Hydro to expand its business in markets outside BC to the benefit of ratepayers.

Phase 2 will be guided by the [Comprehensive Review of BC Hydro Phase 2 – Terms of Reference](#). The Ministry of Energy, Mines and Petroleum Resources will work with BC Hydro; energy industry experts with extensive experience in North American utility operation, technology, regulation and electricity markets; and the Ministry of Environment and Climate Change Strategy, to produce an interim report before the end of the year.

Indigenous Nations and organizations, stakeholders and the public will have the opportunity to provide comments and feedback on the interim report.

A final report with recommendations will be completed in early 2020.

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**[The following language will be posted on a separate page on the EAED site]**

### **Phase 1 of the Comprehensive Review of BC Hydro**

The first phase of the review was completed in February 2019.

Government worked with BC Hydro to identify cost savings, efficiencies, new revenue streams and other changes to keep electricity rates low, while ensuring sound regulatory and financial oversight of BC Hydro and enabling implementation of government policy priorities.

Phase 1 was an internal review, carried out by an advisory group consisting of staff from the Ministry of Energy, Mines and Petroleum Resources, the Ministry of Finance and BC Hydro. This work was guided by the [2018 Comprehensive Review of BC Hydro Phase 1 – Terms of Reference \(PDF, 282 KB\)](#).

The key outcomes of Phase 1 are:

1. A new five-year (April 1, 2019 – March 31, 2024) rates forecast that reflects cost and revenue strategies to keep rates affordable; and
2. A regulatory framework that enhances the British Columbia Utilities Commission's (BCUC's) oversight of BC Hydro.

For further information on the outcomes, please read the [Comprehensive Review of BC Hydro: Phase 1 Final Report \(PDF, 828 KB\)](#).

Among other things, the Phase 1 Final Report has informed BC Hydro's April 1, 2019 – March 31, 2021 Revenue Requirements application, which was filed with the BCUC at the end of February 2019.

## **Indigenous Engagement on the Standing Offer Program**

As a result of Phase 1, BC Hydro's Standing Offer Program (SOP) will be indefinitely suspended. The Province understands that a significant number of Indigenous Nations in British Columbia have expressed interest in developing or partnering on clean energy projects under this program. The Province is seeking to engage with Indigenous Nations and organizations to explore how the indefinite suspension of the SOP may affect the economic interests of individual Indigenous Nations, and to explore alternate opportunities to meet those interests, where they exist.

For further information, please visit the [BC Government's Engagement on the SOP Suspension website](#).

## **Independent Report on BC Hydro's Purchase of Power from Private Power Producers**

Through a separate process, the Minister of Energy, Mines and Petroleum Resources contracted with an independent consultant, Ken Davidson, to examine the factors that have influenced BC Hydro's purchases of electricity from private power producers. The report also looks at the impact these purchases have had on BC Hydro costs and rates.

For more information, read the [Review of BC Hydro's Purchase of Power from Independent Power Producers Report \(PDF, 1.6 MB\)](#).

## **Attachment 3 – Biographies of Expert Advisors**

### **Liisa O’Hara – Former BCUC Commissioner**

Liisa O’Hara served as Commissioner to the BCUC for 10 years. As BCUC Commissioner, Liisa participated in oversight of the Province’s natural gas and electricity utilities, the regulation of rates, and the development of new facilities. As Commissioner, she also developed a strong interest in clean energy solutions. s.22

s.22

### **Stephen Koch – Director of Emerging Issues, Canadian Electricity Association**

Stephen Koch works with senior Canadian Electricity Association members and industry experts to identify, predict, and prepare for technological innovations and potentially disruptive market changes across the energy sector. s.22

s.22

### **David Bibby – Head of Global Digital Services – Finning International**

David Bibby is a future-focused technology executive with over 25 years of experience in strategic technology leadership within growth-oriented global organizations. He has been the Head of Global Digital Service (Finning Digital) at Finning International since January 2016. Prior to this, he has worked as the Vice President, Information Technology, at VanCity, and the Senior Vice President of Information Technology at Canaccord Genuity Corporation.

Launched in 2016 as an internal tech start-up, Finning Digital operates on the edge of Finning International, the world’s largest Caterpillar dealer. Like much of the Canadian economy, Finning International was grappling with declining sales amidst falling oil and gas prices and lower demand from the mining sector. Its customers were looking for ways to decrease costs and increase efficiencies. Finning Digital is leveraging digital technology to connect machines, people and sites, transact business and provide new solutions to transform their customers’ performance. They support Finning International in connecting data and technology with the expertise of employees world-wide to deliver an enhanced customer experience and improve customer outcomes. Finning Digital’s initiatives include IoT or machine-to-machine technology, which allows intelligent computer systems to transmit data and respond accordingly in real time without any human interaction.

**Blake Shaffer – Adjunct Assistant Professor – University of Calgary, Department of Economics**

Blake Shaffer has extensive experience in the energy sector, with a specific focus on electricity markets. Blake enjoyed a 15-year career that has taken him from the trading arm of BC Hydro, to Lehman Brothers and Barclays Capital in New York as a senior energy trader, and finally as Director of Energy Trading at Transalta Corporation in Calgary, Alberta. s.22

s.22

**Caitlin Liotiris – Energy Strategies Consultant**

Caitlin Liotiris leads many of Energy Strategies' efforts in electricity market development, regional transmission planning and policy, and energy procurement arenas. Caitlin provides clients with a unique combination of technical capabilities and energy policy perspective. Her primary work efforts include advocacy at regional forums, performing market and regulatory evaluations, and facilitating the incorporation of new policies and market structures into the firm's modeling tools. She applies her leadership, management, and broad industry perspective in directing and enhancing Energy Strategies' strategic thinking, research, and analytical capabilities.

**Dan Woynillowicz – Policy Director – Clean Energy Canada**

Dan Woynillowicz is an accomplished non-profit leader working to identify and implement climate solutions. An experienced analyst, strategist and advocate, he has significant knowledge and experience in the fields of energy and environmental policy. He joined Clean Energy Canada in December 2012 as Policy Director. s.22

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### **Gwenne Farrell – former Vice President of MoveUP**

Gwenne Farrell worked as a Vice-President of MoveUp from May 2005 until November 2018. Previous to that she worked as a Financial Analyst with BC Hydro. In the spring of 2007, Gwenne was also elected to the office of Secretary-Treasurer of Canadian Office and Professional Employees Union (COPE), Local 378's National Union. Gwenne chaired a number of MoveUP Committees, including the Health and Safety, Convention, and Arbitration Review and Education Committees. She sat on the New West District Labour Council Executive and the Canadian Labour Congress' Energy Task Force. Gwenne has a Bachelor's degree in Economics from Simon Fraser University.

### **Mark Jaccard – Professor – Simon Fraser University School of Resource and Environmental Management**

Mark Jaccard has been a professor since 1986 in the School of Resource and Environmental Management at Vancouver's Simon Fraser University. The only exception is 1992 to 1997, when he took a leave of absence to serve as Chair and Chief Executive Officer of the BCUC.

His PhD is from the Energy Economics and Policy Institute at the University of Grenoble. He has published over 100 academic papers, most of these related to his principal research focus: the design and application of energy-economy models that assess the effectiveness of sustainable energy and climate policies. For this career research, he was named a Fellow of the Royal Society of Canada in 2009 and British Columbia's Academic of the Year in 2008. He has contributed to several major processes and assessments, including the Intergovernmental Panel on Climate Change (93-96 and 2010-2012), the China Council for International Cooperation on Environment and Development (1995-2001 and 2007-2009), Canada's National Roundtable on the Environment and the Economy (2006-2009), British Columbia's Climate Action Team (2007-2009), and the Global Energy Assessment (2008-2012).

In 2006, his book, Sustainable Fossil Fuels, won the Donner Prize for top policy book in Canada. At Simon Fraser University, he teaches graduate and undergraduate versions of an interdisciplinary course in energy and materials sustainability, covering basic physics, technologies, economics, policy and human cognition and behavior.

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## **Attachment 4**

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## MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES

### BRIEFING NOTE FOR DECISION

**PREPARED FOR:** Honourable Michelle Mungall, Minister of Energy, Mines and Petroleum Resources

**ISSUE:** Government Response to the British Columbia Utilities Commission's Report from Phase 2 of the Electric Vehicle Charging Service Inquiry

#### BACKGROUND:

There are over 20,000 zero-emission vehicles (ZEVs) on British Columbia (BC) roads today. To meet the targets set out in the *Zero-Emission Vehicles Act* (ZEV Act), the Ministry of Energy, Mines and Petroleum Resources (EMPR) expects, at a minimum, 120,000 ZEVs on BC roads by 2025, 350,000 by 2030, and over 1.6 million by 2040.

Analyses performed in other jurisdictions show that investments in electric vehicle (EV) charging infrastructure have a direct and positive impact on ZEV sales. At the end of June 2019, there were 292 public direct current (DC) fast-charging stations at 139 locations in the province. Tesla owns and operates approximately one-half of the current DC fast-charging stations (136 at 14 locations), which are reserved for Tesla vehicles. Sixty-nine of the remaining stations are owned and/or operated by BC Hydro and FortisBC. EMPR anticipates that a minimum of 300 new DC fast-charging stations will be required along primary and secondary highways and major roads to allow British Columbians to travel throughout the province in their EVs. In the long-term, significantly more DC fast-chargers will be necessary.

The lack of a positive business case has limited private investment in DC fast-charging infrastructure. Installation of a DC fast-charging station costs a minimum of \$100,000. Rates for DC fast-charging are generally \$9 per half hour or \$0.35 per kilowatt/hour. At this rate and current EV ownership levels, revenue obtained from station users would not be sufficient to cover the costs associated with installing, operating and maintaining a DC fast-charging station at most sites within the province. BC Hydro and FortisBC have both received third-party funding - largely from Natural Resources Canada (NRCan) and the Province's Clean Energy Vehicle Program - to offset their DC fast-charging station installation costs.

Individuals or businesses providing EV charging services (EVCS) for compensation are public utilities under the *Utilities Commission Act* (UCA) and subject to BC Utilities Commission (BCUC) oversight. After receiving a rate design application from FortisBC related to its Accelerate Kootenays DC fast-charging project, the BCUC announced in January 2018 that it would be undertaking a general inquiry to explore the potential regulatory issues in the EVCS market that may have broader stakeholder impacts (the Inquiry).

The BCUC completed Phase 1 of the Inquiry and publicly released a report of its findings on November 26, 2018. Following the release of that report, the Minister approved a BCUC

order that exempts landlords, strata corporations, and individuals who are not otherwise public utilities (collectively, “exempt utilities”) from parts of the UCA with respect to the delivery of EVCS.

Phase 2 of the Inquiry focused on the role of “traditional” public utilities, such as BC Hydro and FortisBC (collectively, “non-exempt utilities”), in the delivery of EVCS. These non-exempt utilities were not captured in the exemption order arising from Phase 1 of the Inquiry and are therefore still subject to full BCUC oversight with respect to their investments in EVCS. The BCUC released its report from Phase 2 of the Inquiry on June 24, 2019 (Phase 2 report). With the release of the Phase 2 report, the Inquiry is now complete.

## **DISCUSSION:**

### **a. Summary of Phase 2 Findings**

EMPR actively participated in the Inquiry as an intervener and submitted written evidence and arguments to inform the BCUC’s deliberations. Throughout both phases of the Inquiry, EMPR consistently expressed its belief that, without additional investment in EV charging infrastructure from non-exempt utilities, provincial greenhouse gas (GHG) reduction targets for the transportation sector, and the ZEV sales targets set out in the CleanBC plan and ZEV Act, would not be met. Other jurisdictions with aggressive ZEV adoption targets, including California and Quebec, have concluded that public utility involvement is critical to ensuring adequate EV charging infrastructure. MEMPR also consistently expressed its position that recovery of some or all of the costs of EVCS investments from ratepayers may be appropriate because all ratepayers benefit from increased load and GHG reductions associated with increased EV adoption.

In the Phase 2 report, the BCUC agreed with EMPR that there are opportunities for the participation of non-exempt utilities in the EVCS market. The BCUC also found that there may be circumstances that justify non-exempt utility ratepayers bearing the risk of EVCS investments; however, the BCUC indicated that careful consideration should be given to any non-exempt utility EVCS investments because of the potential for unfair impacts on exempt utilities and undue risk to ratepayers.

The Phase 2 report outlined two possible approaches to regulation of non-exempt utility involvement in the EVCS market. Both approaches involve some form of Government direction to the BCUC, either via legislation or regulation. The BCUC did not make recommendations to Government on which approach to adopt, but did make recommendations regarding how each approach could be implemented.

The first option identified by the BCUC is a “non-prescriptive” approach to regulation. Under this approach, the BCUC would continue to review and approve all non-exempt utility investments in EVCS, but would be guided in this review by any broad or high-level policy direction that Government may wish to provide (e.g., direction to prioritize the need for electrification of transportation infrastructure when considering non-exempt utility proposals for EVCS investments). To be binding on the BCUC, any broad policy direction would need to be enshrined in legislation or regulation.

The BCUC recommended a series of actions to implement the non-prescriptive approach, including:

- Non-exempt utilities must develop EVCS Resource Plans, which would need to be reviewed and approved by the BCUC before EVCS investments are made. The BCUC would develop filing guidelines for the contents of EVCS Resource Plans.
- Non-exempt utilities must develop separate rates and tariffs for users of DC fast-charging stations, which must be reviewed and approved by the BCUC.
- Non-exempt utilities must also develop specific tariffs for the provision of electricity to operators of DC fast-charging stations. These new tariffs must also be reviewed and approved by the BCUC.

The second option the BCUC identified is a more prescriptive approach to regulation, which would either eliminate or significantly reduce the BCUC's powers to review and approve non-exempt utility EVCS investments. Under this approach, Government could direct the BCUC to allow cost-recovery in rates of either a particular non-exempt utility EVCS investment, or a class of EVCS investments that meet a common set of criteria. This approach could be implemented via direction to the BCUC under section 3 of the UCA, or an amendment to the Greenhouse Gas Reduction (Clean Energy) Regulation (GGRR) under the *Clean Energy Act*.

The GGRR allows utilities to implement prescribed undertakings for a specified time period without seeking the prior approval of the BCUC for programs that lead to GHG reductions. If Government chooses to adopt this approach, the BCUC recommends that non-exempt utilities be limited to EVCS investments in areas where exempt utilities are not likely to invest and that the quantum of allowed investment is limited to ensure that exempt utilities are not unfairly impacted and that non-exempt utility ratepayers are not at undue risk.

## **b. Analysis of Approaches**

EMPR favours the more prescriptive approach to regulation, because it can be implemented relatively quickly and provides non-exempt utilities with certainty regarding the costs that can be recovered. BC Hydro and FortisBC estimate that the non-prescriptive approach to regulation would take a minimum of two years to implement, because each implementation action (development of EVCS Resource Plan guidelines, review of EVCS Resource Plans, and review of tariff changes) would require a separate BCUC proceeding.

If Government were to support the first, non-prescriptive approach, both FortisBC and BC Hydro advise that they will have to stop work on DC fast-charging station installations until such time as these BCUC proceedings were complete and BCUC approval of EVCS Resource Plans was obtained. Over the next year, with funding support from NRCan, FortisBC plans to install 23 stations and BC Hydro plans to install between 15 and 20 stations. Those installations would have to be put on hold, which could mean the loss of NRCan funding. BC Hydro advises that they will also have to hold off on planning for future installations, which were to include stations along the highway corridor between Prince George and Kitimat.

Any delay in implementing non-exempt utility plans to install additional DC fast-charging stations throughout the province would be a significant concern to EMPR, federal government funding partners and other stakeholders. Rapid deployment of additional DC fast-charging

stations in northern and rural regions is needed to make ZEVs feasible throughout the province. EMPR believes that the prescriptive approach could be implemented in such a way that it addresses concerns expressed by the BCUC in the Phase 2 report, while still allowing non-exempt utilities to continue with investments in DC fast-charging stations over the next several years. This could be accomplished via a regulation that prescribes a set of criteria that must be met for non-exempt utilities to recover the cost of DC fast-charging investments in rates. Those criteria could include:

- the DC fast-charging station is available for use by members of the public. There is no intention to capture DC fast-charging stations that may be installed by public utilities exclusively for use by commercial or fleet customers;
- the DC fast-charging station must meet industry-recognized open source protocols;
- installation of the DC fast-charging station must occur within a prescribed time period;
- the total non-exempt utility investment in DC fast-charging stations, including purchase, installation, maintenance and/or operating costs, must be under a prescribed cost threshold;
- along highway corridors, the DC fast-charging station must be at least a minimum prescribed distance from other DC fast-charging stations (e.g., no closer than 40 km from the nearest station along the same corridor); and/or
- in urban areas, the cost of DC fast-charging investments can only be recovered in rates if the ratio of DC fast-charging stations to population is under a prescribed ratio (e.g., one station per 25,000 population).

Making rural and northern investment prohibitive?

Within the prescribed approach, Government could also consider providing direction to the BCUC with respect to the approval of rates for operators and/or users of DC fast-charging stations. Without this type of direction, the BCUC may reject a rate application from a non-exempt utility that does not allow the utility to fully recover the costs of providing the service from its users or does not have an economic rationale (e.g., increasing load).

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s.13 The BCUC granted interim approval of FortisBC's proposed DC fast-charging rates (\$9 per half hour) in January 2018 but FortisBC has requested that the proceeding to consider permanent approval be adjourned pending Government's response to the Inquiry.

There are several options for how this direction could be structured. Government could direct the BCUC to approve specific DC fast-charging rate schedules. This type of direction would eliminate the need for a BCUC proceeding and provide non-exempt utilities the certainty they require to continue with DC fast-charging investments planned for over the next two years.

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- rates for a DC fast-charging service may be just and reasonable even if they do not fully recover a public utility's cost of providing the service; and

- rates for DC fast-charging services should be comparable throughout the province and among public utilities offering this service.

This approach is not without risk. The BCUC could determine that other factors (e.g., impact on ratepayers) weigh against approval of BC Hydro's proposed DC fast-charging rates. This approach also requires a BCUC proceeding to consider the DC fast-charging rate application, which could delay BC Hydro's plans for station installation.

### **c. Consultation**

Under either approach, EMPR staff will need to consult further with interested stakeholders before bringing forward any legislative or regulatory changes for Government consideration. Thirty-nine interveners participated in the Inquiry and this group may expect, and would likely welcome, the opportunity to provide feedback to EMPR as it develops the details of any proposed legislative or regulatory changes. To focus the engagement and maximize its value, stakeholders could be asked to comment on specific aspects of proposed legislation or regulations (e.g., cost-recovery criteria). Alternatively, EMPR could limit its consultation to discussions with BC Hydro and FortisBC, which are the two non-exempt public utilities with EVCS investment plans who will be most impacted by Government's response to the Phase 2 Report.

### **OPTIONS:**

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## RECOMMENDATION:

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Approved / Not Approved



Honourable Michelle Mungall  
Minister of Energy, Mines and Petroleum Resources

September 11, 2019

### DRAFTED BY:

Shannon Craig  
Electricity Policy Analyst  
778-698-7016

### APPROVED BY:

Paul Wieringa, ED, EAED ✓  
Dan Green, A/ADM, EAED ✓  
Peter Robb A/DM ✓

## **Appendix A – Draft Consultation Plan (CLIFF 107325)**

### **Background:**

- After receiving a rate design application from FortisBC related to its Accelerate Kootenays DC fast-charging project, the British Columbia Utilities Commission (BCUC) announced in January 2018 that it would be undertaking a general inquiry to explore the potential regulatory issues in the electric vehicle (EV) charging services (EVCS) market that may have broader stakeholder impacts (the Inquiry).
- Phase 2 of the Inquiry focused on the role of “traditional” public utilities, such as BC Hydro and FortisBC (collectively, “non-exempt utilities”), in the delivery of EVCS. The BCUC released its report from Phase 2 of the Inquiry on June 24, 2019 (Phase 2 report).
- In the Phase 2 report, the BCUC agreed with MEMPR that there are opportunities for the participation of non-exempt utilities in the EVCS market.
- The Phase 2 report outlined two possible approaches to regulation of non-exempt utility involvement in the EVCS market. The BCUC did not make recommendations to Government on which approach to adopt, but did make recommendations regarding how each approach could be implemented.
- Government proposes to implement a “prescriptive” approach to regulation of non-exempt public utility involvement in the EVCS market, which would include direction to the BCUC in relation to:
  - cost-recovery of EVCS investments; and
  - approval of BC Hydro DC fast-charging rates.

### **Goals/Objectives:**

- To seek input from the 39 registered BCUC EV inquiry interveners on implementation of the prescriptive approach to regulation of non-exempt public utilities providing EVCS services.
- To update interveners on Government’s response to the Phase 2 Report.
- To reduce potential for criticism from exempt public utilities and other stakeholders by providing an opportunity for input before Government’s response is finalized.

### **Potential Challenges:**

- Any regulatory changes need to be in place by the end of 2019 in order to avoid delays to non-exempt public utility investments in EVCS. This means that only a limited time period can be allowed for intervener input.
- Other stakeholders with an interest in EV charging may wish to provide input. Although there will be no restriction against input from other stakeholders, only interveners will be directly invited to provide input.

### Key Messages:

- We thank the BCUC for its timely and thorough inquiry into the regulation of EVCSs as more and more people make the switch to EVs to save money and reduce emissions.
- The BCUC's findings and recommendations have been considered by Government as we take the next steps to define a legislative and/or regulatory framework that will support the expansion and improvement of charging services.
- Based on the experience in other jurisdictions, additional investment in EV charging infrastructure from public utilities will be required if we are going to achieve the EV sales targets mandated in our new *Zero-Emission Vehicle Act*.
- All ratepayers will benefit from a reduction in greenhouse gas emissions, from increased electricity sales and revenues, and from increased economic opportunities and development associated with public utility investment in EV charging infrastructure.
- Public utilities, including BC Hydro and FortisBC, plan to make EV charging infrastructure investments over the next two years, supported by funding from the Province and Natural Resources Canada.
- In order to avoid any delay in these investment plans, Government favours a prescriptive approach to regulation. The prescriptive approach would provide public utilities with the certainty to proceed with these investments, while continuing to protect the interests of ratepayers and exempt public utilities.
- As an intervener in the BCUC's EV inquiry, your input will be valuable as Government considers how best to implement the prescriptive approach.

### Implementation Strategy:

	Task	Completion Date
1.	Cover letter and questionnaire developed by EAED	September 6
2.	Cover letter and questionnaire reviewed by GCPE	September 11
3.	Cover letter and questionnaire distributed by EAED via email to interveners (return deadline of October 4)	September 13
4.	EAED develops and submits drafting instructions to Legislative Counsel	September 13
5.	EAED reviews intervener feedback and submits any additional drafting instructions to Legislative Counsel based on intervener feedback	October 11
6.	EAED works with Legislative Counsel and MAG to finalize proposed regulations	October 18

## MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES

### BRIEFING NOTE FOR INFORMATION

**PREPARED FOR:** Honourable Michelle Mungall, Minister of Energy, Mines and Petroleum Resources

**ISSUE:** Next Steps for Phase 2 of the Comprehensive Review of BC Hydro

#### BACKGROUND:

In 2018, Cabinet approved a two-phase Comprehensive Review of BC Hydro (Review). The results of the Phase 1 Structural Review were announced in February 2019. Phase 1 resulted in restoring regulatory oversight of BC Hydro by the BC Utilities Commission (BCUC), and a new 5-year rate forecast with cumulative rate increases below the projected rate of inflation.

In July 2019, Terms of Reference for the Phase 2 Transformational Review were released. Phase 2 has a longer-term outlook and is considering how BC Hydro can support CleanBC, and how BC Hydro can be positioned for enduring success in a rapidly changing energy sector. The Phase 2 Review is being undertaken by Government and BC Hydro officials, with support from nine Expert Advisors. Key drivers of future change have been identified:

- Disruptive technologies, such as the falling cost of wind and solar power generation, and the ability to control both generation and load;
- Changing customer demands, spurred by the growth in information technology;
- CleanBC and the imperatives of reducing greenhouse gas emissions while growing a clean economy;
- Reconciliation, and the *Declaration of the Rights of Indigenous Peoples Act* (DRIPA); and
- Competition from new entrants into traditional utility business areas.

A series of actions have been identified to respond to these drivers. The Phase 2 Review has grouped these actions under four Strategic Themes:

- Focus on the customer;
- Supplier of Choice by transitioning to a 100% Clean Delivery Standard;
- Leveraging BC Hydro's flexible generation system; and
- New partnerships with Indigenous Nations.

The BC Assembly of First Nations (BCAFN) and a number of Indigenous leaders (Judith Sayers, President of the Nuu-chah-nulth Tribal Council; Chief Patrick Michell of Kanaka Bar Indian Band; and Joel Starlund, executive director of the Gitanyow Hereditary Chiefs) have voiced concerns over the process for the BC Hydro Review, and a perceived lack of opportunity for meaningful Indigenous engagement.

The BCAFN raised their concerns with Minister Mungall at their annual general meeting in September 2019, and passed a resolution calling for government to "immediately overhaul" the

terms of reference for the review such that there is “meaningful and substantive engagement” with First Nations and organizations “at all levels of the review.”

## **DISCUSSION:**

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### Interim Report

The delay of the Interim Report provides an opportunity for targeted engagement with Indigenous leaders in December and January to, in part, address criticism of the Review. The engagement would be framed around issues Government has heard in recent years that Indigenous Nations are interested in, such as revenue sharing and involvement in electricity infrastructure, and would seek feedback on how Indigenous Nations would like to be involved in responding to the Interim Report, the Final Report, and implementation of the Review. A draft Indigenous Engagement Plan is attached.

Stakeholders looking for an Interim Report in December (as set out in the Terms of Reference) would be told that government is doing some additional Indigenous engagement, and that an Interim Report will be released for comment in late January.

To date, the Ministry and BC Hydro have been working on an Interim Report with lots of background and detail, including recommendations on key actions. s.12; s.13

s.12; s.13

**CONCLUSION:**

The delay to the release of the Review Interim Report until January 2020 provides the Ministry and BC Hydro with the opportunity to seek direction on key actions and legislation, and to engage with Indigenous leaders and nations in response to their criticism of the Review process.

**Attachment:** Draft BC Hydro Phase 2 Indigenous Engagement Strategy

**DRAFTED BY:**

Les MacLaren, ADM  
778-698-7183

**APPROVED BY:**

Dave Nikolejsin, DM ✓

## Appendix: BC Hydro Review Phase 2– Indigenous Engagement

### Timeline

Oct. 21-25	<b>COMPLETE</b> - Brief minister on policy options for Interim Report <b>COMPLETE</b> - Brief the Review Committee on P&A material
Mid-late Nov.	<b>COMPLETE</b> - Pre-brief Minister, Premier's Office, and Premier <b>COMPLETE</b> - Provide direction from PO to Review Committee
Mid-Dec.	Direction from Premier and Ministers on key actions and legislation
Mid-Dec.-Jan.	Targeted discussions with select Indigenous Representatives Engagement with additional select Indigenous organizations and nations on the process prior to the release of the Interim Report.
Mid-Jan.	Ministers (Mungall, Heyman, James) approval of Interim Report
Late Jan.	Release of Interim Report Beginning of 60-day review and engagement period
Feb.- Mar. 2020	Engagement with Indigenous Nations Engagement with Stakeholders
April 2020	Release of the Phase 2 Final Report, and introduce implementing legislation

## Governance Structure



## BC Hydro Phase 2 Review – Indigenous Engagement

### 1. Background

- In June 2018, the Province announced plans for a comprehensive, two-phase review of BC Hydro, with the goal of containing rate increases, controlling costs, and positioning BC Hydro for future success. Phase 1 has been completed: \$1.1 billion of BC Hydro debt was written-off, the Standing Offer Program indefinitely suspended, and the independence of the BC Utilities Commission oversee BC Hydro was restored, including the responsibility for approving BC Hydro's Integrated Resource Plan. BC Hydro is forecasting rate increases below the rate of inflation for the next 5 years.
- Phase 2 was initiated in July 2019, guided by publicly available Terms of Reference (Appendix A) which provides the objectives, governance structure and process. The objective of Phase 2 is to create a strategy, for the benefit of British Columbians, for BC Hydro to continue to provide its customers with access to reliable clean energy at competitive rates through the continuing evolution of BC Hydro in response to changes in climate, consumer demand, technology and BC's commitment to reconciliation with Indigenous Nations.
- The areas of focus in the Phase 2 Terms of Reference include:
  1. Supporting Clean BC;
  2. Thriving in an evolving electricity sector;
  3. Leveraging our strengths; and
  4. Opportunities for Indigenous Nations and Communities.



- More specifically “Opportunities for Indigenous Nations and Communities” will examine:
  - Future opportunities or new roles for Indigenous Nations in the development, ownership, or operation of electrical infrastructure or services.
  - Recommendations on how to enhance Indigenous Nations’ participation in the energy sector.
  - Consideration of how BC Hydro currently works with communities, and alternative approaches going forward.

## 2. Phase 2 Review Objectives

- To achieve quality economic growth that increases productivity and raises the standard of living in all regions of the province, and creates the opportunity to support:
  - Avoidance or reduction of GHG emissions;
  - Indigenous reconciliation; and
  - Affordable electricity rates.
- To create a unified alignment with BC Hydro’s objectives, listed above, with an additional focus on Indigenous interests that will:
  - Build Indigenous support for BC Hydro business;
  - Advance reconciliation and United Nations Declaration on the Rights of Indigenous Peoples, supporting self-determination that is a foundation for First Nations peoples; and
  - Help to achieve free prior and informed consent for BC Hydro’s projects and activities, supporting BC Hydro as it moves from a transactional approach to a long term sustained engagement and that creates mutual benefits.

### 3. METHOD FOR A SUCCESSFUL ENGAGEMENT:

#### Stage 1(a): September 2019 – COMPLETE

##### Pre-Interim Report / Overview of the Terms of Reference and Approach

##### **Objective: Present the Terms of Reference and Layout the Approach**

- Early discussions with the Climate Solutions and Clean Growth Advisory Council provided input on Terms of Reference and Approach. There are two Indigenous representatives on this committee:
  - Kathryn Teneese, Ktunaxa Nation; and
  - Former Chief Aaron Sumexheltza, Lower Nicola Indian Band; and
- The Minister of Energy, Mines and Petroleum Resources (Minister) attended the BCAFN Annual General Meeting and spoke to government's intent that Indigenous engagement would be integral to the Review.

##### **Issues / Concerns:**

- A meeting was offered in September, in Vancouver, and the First Nations Summit was the only Indigenous organization to attend.
- Invitees included:
  - First Nations Leadership Council
  - BC Union of Indian Chiefs
  - BC Assembly of First Nations
  - First Nations Energy and Mining Council
  - Métis Nation British Columbia
  - BC Modern Treaty Alliance
- Indigenous organizations and nations have described the Review process as inadequate.
- Concerns, to date, expressed by the BCAFN:
  - Lack of engagement on Phase 1.
  - Lack of engagement on ToR for Phase 2.
  - No formal representation of First Nations or Indigenous Organizations in the Phase 2 governance structure.
  - No opportunity to participate in decisions that might flow from Phase 2.

## **Stage 1(b): Pre-Interim Report –early December 2019 to January 2020**

### **Objective – TARGETED Early Engagement - early December 2019 to January 2020:**

#### **Principles for Engagement:**

- To clarify the ToR and the approach being taken with the Interim Report and development of a final report (e.g. capture ideas and help to facilitate a conversation).
- Subject to direction from the Minister and PO, EMPR will meet with key/targeted Indigenous people and provide a description, at a high level, of what may be released in the Indigenous Opportunities section of the Interim Report.
- To describe some of the opportunities based on what has been heard from Indigenous nations at various BC Hydro and government negotiations and engagements over the years.
- Appendix 2 provides an overview of the ADM Speaking Bullets/Notes for these meetings.
- The targeted early engagement will also provide an opportunity for Indigenous people and nations to advise government on a process for engagement on:
  - (a) the Interim Report; and
  - (b) development and implementation of a Final Report.
- Formal Engagement will occur for 60 days after the Interim Report has been released, and this engagement will inform the content of the Final Report expected to be released in spring of 2020.
- Invite Indigenous organizations and nations to participate in BC Hydro's engagement in spring of 2020 on development of the Integrated Resource Plan.

#### **Issue:**

- Government can only engage with a small cohort of Indigenous nations and organizations due to the short timeline.
- Government expects to hear issues related to the cancellation of the Standing Offer Program. This is being managed in a separate stream of engagement and will not be included in the Interim or Final Report.

#### **Who to engage:**

1. Nuu-Chah-Nulth Tribal Council, Judith Sayers
2. Kanaka Bar, Chief Patrick Mitchell
3. Saulteau First Nation
4. First Nations Climate Initiative, Haisla/Lax Kw'alaams/Nisga'a/Metlakatla Nations
5. Squamish/Tsleil-Waututh/Musqueam Nations

#### **How to engage:**

Face-to-face or phone meetings with ADM or senior staff from EAED and SIAD as required.

**Engagement Report:**

- EMPR to provide a comprehensive overview of the each of the engagement sessions (see Appendix 3).

**Stage 1(c) Pre-Interim Report - Early December 2019 to January 2020****Objective – Broader Pre-Engagement before the Interim Report released:****Principles for Engagement:**

- Clarify the ToR and the approach being taken with the Interim Report and development of a Final Report (e.g. capture ideas and help to facilitate a conversation).
- Advise Indigenous organizations and nations that the engagement process will occur for 60-days after the Interim Report has been released. This will provide the opportunity to give advice and guidance on what has been included and what might be missing, all of which to addressed in a final report.
- Provide the Indigenous organizations and nations the opportunity to direct government on how to undertake engagement for:
  - the Interim Report; and
  - the development and implementation of a Final Report.
- Invite Indigenous organizations and nations to participate in BC Hydro's engagement on the development of the Integrated Resource Plan.

**Issue:**

- Government can only engage with a small cohort of Indigenous nations and organizations due to the short timeline.

**Who to engage:** See Appendix 4.

**Opportunities for Engagement:**

- Face-to-face meetings, when available, and phone calls with executive level staff.
  - Leverage regularly scheduled BC Hydro meetings with Nations
  - Leverage regularly scheduled government to government table meetings

**Engagement Report:**

- EMPR to provide a comprehensive overview of the each of the engagement sessions (see Appendix 3).

## Stage 2: Interim Report – February and March 2020

### **Objective – To engage on the Interim Report and development of a Final Report:**

#### **Available Funding:**

- To date, EMPR has received approval for up to \$<sup>16</sup> in funding to support Phase 2 Indigenous engagement.

#### **Principles for Engagement:**

- To engage as directed by Indigenous organizations and nations in Stage 1.
- To better understand, from Indigenous organizations, what they view as the opportunities and barriers on key areas of the Interim Report and what are the positive and potential impacts from an economic, social or cultural viewpoint.
- To direct Indigenous organizations and nations to BC Hydro's engagement plan for developing the Integrated Resource Plan.
- What else should be included?

#### **Who to Engage:**

- Will be based on feedback from Stage 1.

#### **Opportunities for Engagement:**

- Will be based on the feedback that government receives in Stage 1.
- Additional engagement opportunities:
  - Regularly scheduled BC Hydro
  - Regularly scheduled government to government table meetings
  - CleanBC workshop in late January 2020 – opportunity for high-level overview of the Interim Report and how to be involved in the Final Report and Implementation, post CleanBC Forum.
  - Regional workshops
  - Webinars
  - Web/mail

#### **Issues:**

- Some Indigenous communities may not trust the engagement process because they were not included in Stage 1, and therefore do not trust the process.

## Stage 3: Implementation of the Final Report - April 2020 forward

### **Objective– To Engage/Implement the Report:**

#### **Available Funding:**

- To be determined.

**Principles for Engagement:**

- To seek input from Indigenous organizations and nations on how they would like to be engaged on the implementation of the Final Report.
- To engage based on the feedback that government receives in Stage 1 and 2.

**Who to Engage:**

- Will be determined by the feedback that government receives in Stage 1 and 2.

**Opportunities for Engagement:**

- Will be based on what government hears in Stage 1 and 2; and
- Will include additional engagement opportunities, such as:
  - Regularly scheduled BC Hydro meetings with Indigenous nations
  - Regularly scheduled government to government table meetings
  - Regional workshops
  - Webinars
  - Web/mail

**Issues:**

- Some Indigenous communities may not trust the engagement process because they were not included in Stage 1.

### Overview: Full Engagement Plan

	Stage 1 (a)	Stage 1 (b) and (c)	Stage 2	Stage 3
<b>Available Funding</b>	N/A		s.16	unknown
<b>Principles of Engagement</b>		<ul style="list-style-type: none"> <li>• After direction from PO and Ministers, EMPR and SAID will meet with key Indigenous people.</li> <li>• Provide the opportunity to give advice and guidance on what has been included and what might be missing from the report.</li> <li>• Provide Indigenous Nations and organizations with the opportunity to advise government on a process for engagement on:               <ul style="list-style-type: none"> <li>(a) the Interim Report;</li> <li>(b) the development of a Final Report</li> </ul> </li> <li>• Invite Indigenous organizations and nations to participate in BC Hydro's engagement plan for developing the IRP</li> </ul>	<ul style="list-style-type: none"> <li>• Clarify the ToR and the approach being taken with the Interim Report (e.g. capture ideas and help to facilitate a conversation).</li> <li>• Provide the opportunity to give advice and guidance on what has been included and what might be missing from the report.</li> <li>• Invite Indigenous organizations and nations to participate in BC Hydro's engagement plan for developing the IRP.</li> </ul>	<ul style="list-style-type: none"> <li>• Seek input from on how they would like to be engaged on the implementation of the Final Report.</li> <li>• Engage based on what government has heard in Stage 1 and 2.</li> </ul>
<b>Participants in</b>		<ul style="list-style-type: none"> <li>• Nuu-Chah-Nulth Tribal Council, Judith Sayers</li> <li>• Kanaka Bar, Chief Patrick Mitchell</li> </ul>	<ul style="list-style-type: none"> <li>• As determined in Stage 1</li> </ul>	<ul style="list-style-type: none"> <li>• As determined in Stage 1</li> </ul>

<b>Engagement Process</b>		<ul style="list-style-type: none"> <li>• Saulteau First Nation</li> <li>• First Nations Climate Initiative, Haisla/Lax Kw'alaams/Nisga'a/Metlakatla Nations</li> <li>• Squamish/Tsleil-Waututh/Musqueam Nations</li> </ul>		
<b>Opportunities for Engagement</b>		<ul style="list-style-type: none"> <li>• Face-to-face meetings, when available, and phone calls with executive level staff.</li> <li>• Leverage regularly scheduled BC Hydro meetings.</li> <li>• Leverage regularly scheduled G2G meetings.</li> <li>• Regional workshops, webinars, web/mail</li> </ul>	<ul style="list-style-type: none"> <li>• Face-to-face meetings, when available, and phone calls with executive level staff.</li> <li>• Leverage regularly scheduled BC Hydro meetings.</li> <li>• Leverage regularly scheduled G2G meetings.</li> <li>• Regional workshops, webinars, web/mail</li> </ul>	<ul style="list-style-type: none"> <li>• Will be based on what government hears in Stage 1 and 2; and</li> <li>• Leverage regularly scheduled BC Hydro meetings.</li> <li>• Leverage regularly scheduled G2G meetings.</li> <li>• Regional workshops, webinars, web/mail</li> </ul>
<b>Issues</b>		<ul style="list-style-type: none"> <li>• Government can only engage with a small cohort of Indigenous nations and organizations due to the short timeline.</li> <li>• Government expects to hear issues related to the cancellation of the Standing Offer Program. This is being managed in a separate stream of engagement and will not be included in the Interim or Final Report.</li> </ul>	<ul style="list-style-type: none"> <li>• Some communities may not trust the process because they were not included in Stage 1.</li> </ul>	<ul style="list-style-type: none"> <li>• Some communities may not trust the process because they were not included in Stage 1.</li> </ul>



## APPENDIX 1:

### BC Hydro Comprehensive Review – Phase 2

[https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/electricity/bc-hydro-review/bch\\_review\\_phase\\_ii\\_tor\\_190716\\_public\\_clean.pdf](https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/electricity/bc-hydro-review/bch_review_phase_ii_tor_190716_public_clean.pdf)

DRAFT

## **APPENDIX 2: SPEAKING POINTS/BULLETS FOR EMPR**

- I understand that there have been concerns about Government's Phase 2 review of the BC Hydro and the Terms of Reference.
- The approach taken was to keep the ToR broad to ensure that there were opportunities to review all of the ideas coming forward by Indigenous organizations and nations.
- The interim report is only intended to help to facilitate a conversation and capture some of the high-level opportunities and concepts based on what we have heard from Indigenous peoples over the years during various BC Hydro and government engagement sessions.
- The information that we will gather from the upcoming engagement sessions will support the content for the final report which is expected to be released in spring of 2020.
- Some of the concepts that government and BC Hydro have heard over the years includes:
  - A revenue sharing framework with Indigenous nations.
  - Indigenous ownership and/or partnerships for new radial transmission assets.
  - Creating an institution or Limited Partnership that will enable Indigenous nations to undertake energy sector opportunities
  - Work in coordination with the Province and Canada, to identify potential models to further assist off-grid communities to reduce their reliance on diesel powered generation.
  - To have BC Hydro engaged with Indigenous nations in the strategic and operational planning and decision making, with a focus at the community level in areas where BC Hydro has existing assets and planned activities.
- Anything that is proposed will require a Cabinet approval therefore collaboratively we will need to develop framework for developing those concepts/opportunities that come forward by Indigenous nations and organizations.
- What are your thoughts?
- The interim report will be available in late January for comment period of 60-days.
- How would you recommend that government engages with Indigenous people on the Interim Report, both on what they think of what has been included and what might be missing?

**APPENDIX 3:**  
**Overview of Engagement for Stage 1b and 1c**  
**“What We Heard”**

**Date:**

**Indigenous Attendees:**

**Government Attendees:**

**Request feedback on the overview of the process to date?**

**Opportunities identified for Indigenous Nations and Communities?**

- Future opportunities or new roles for Indigenous Nations in the development, ownership, or operation of electrical infrastructure or services.
  - Indigenous ownership and/or partnerships for new radial transmission assets.
- Recommendations on how to enhance Indigenous Nations’ participation in the energy sector.
  - A revenue sharing framework with Indigenous nations.
  - Creating an institution or Limited Partnership that will enable Indigenous nations to undertake energy sector opportunities
- Consideration of how BC Hydro currently works with communities, and alternative approaches going forward.
  - Working in coordination with the Province and Canada, to identify potential models to further assist off-grid communities to reduce their reliance on diesel powered generation.
  - BC Hydro engaging with Indigenous nations in strategic and operational planning and decision making, with a focus at the community level in areas where BC Hydro has existing assets and planned activities.

**Other strategic themes for consideration:**

- Emerging trends, key drivers and regulations
- Strategic themes: focus on the customer, 100% clean delivery standard, leveraging BC’s flexible clean hydro system

**Next steps:**

- Engagement on the Interim and Final Report; and
- Implementation Report.

**APPENDIX 4:**  
**Opportunities for Engaging with Indigenous Nations and Organizations**

Region	FN Organization/Community	Date of meeting(s)
Southwest	First Nations Leadership Council	TBD
	First Nations Summit	TBD
	Union of BC Indian Chiefs	TBD
	First Nations Energy and Mining Council	TBD
	First Nations Major Project Coalition	TBD
	Alliance of BC Modern Treaty First Nations	TBD
	Nuu-Chah-Nulth Tribal Council	TBD
	Kwantlen	3 <sup>rd</sup> Tuesday of every month (BCH)
	Tsleil Waututh	Late Jan/Early Feb (BCH)
	Squamish	Monthly meeting (BCH)
	Musqueam	Bi Monthly meeting (BCH)
South-central/east	NNTC	December 19 <sup>th</sup> , 2019 – Kamloops (BCH)
	Kanaka Bar	TBD
	Secwepemc	TBD (BCH)
	ONA	TBD (BCH)
	Ktunaxa	TBD (BCH)
	St'at'imc	April 2020 (BCH)

Northwest	Haisla Nation	TBD
	Lax Kw'alaams	TBD
	Nisga'a Government	TBD
	Metlakatla	TBD
Northeast	Doig River First Nation	January / February 2020 (BCH)
	Halfway River First Nation	January / February 2020 (BCH)
	McLeod Lake Indian Band	January / February 2020 (BCH)
	Saulteau First Nation	January / February 2020 (BCH)
	Blueberry River First Nation	January – March 2020 (BCH)
	West Moberly First Nation	January – March 2020 (BCH)

## NATURAL RESOURCE SECTOR – JOINT MINISTRY INFORMATION NOTE

Date: June 17, 2019  
CLIFF: ENV 345624

**PREPARED FOR:** Mark Zacharias, Deputy Minister, Ministry of Environment and Climate Change Strategy  
Dave Nikolejsin, Deputy Minister, Ministry of Energy, Mines and Petroleum Resources

**ISSUE:** CleanBC Program for Industry Eligibility and Compliance

### BACKGROUND:

The CleanBC Program for Industry (CPI) was introduced in December 2018, with two objectives: to facilitate greenhouse gas (GHG) emission reductions while supporting industrial competitiveness. It is funded through incremental carbon tax revenue (i.e. the portion above \$30/tonne) paid by large industrial facilities. Payment decisions for the CPI are based, in part, on the facility-level GHG data that is required to be submitted by industrial operations each year under the *Greenhouse Gas Industrial Reporting and Control Act* (GGIRCA). These reporting requirements have been in place since 2010.

The CPI has two initiatives:

- **CleanBC Industry Fund (CIF):** that invests directly into industrial emission reduction projects, making industries cleaner and more competitive; and
- **CleanBC Industrial Incentive Program (CIIP):** that reduces carbon-tax costs for industrial operations whose products meet world-leading emissions intensity benchmarks.

**CIF eligibility:** The CIF is available to operators of British Columbia (BC) industrial reporting operations that report their emissions under GGIRCA. In order to be eligible to submit a proposal to the CIF, an initial Expression of Interest (EOI) must have been submitted for the 2019 funding year. The Request for Proposal (RFP) requires that the applicant must have submitted the required emissions reports for the past 3 years by May 31, 2019. Operators of reporting operations, irrespective of their compliance status in early 2019, had the opportunity to meet this mandatory requirement of the RFP.

**CIIP eligibility:** The CIIP is available to industrial reporting operations that report emissions under GGIRCA, excluding those facilities within the following sectors: electricity import operations, sewage and waste treatment, natural gas distribution, fossil fuel electricity generation and electricity transmission. These sectors were excluded due to factors such as low amount of taxable GHGs, high complexity in benchmarking the sector's products, and low competitiveness concerns.

Industrial operations are required to report emissions under GGIRCA if they emit more than 10,000 tonnes carbon dioxide equivalent a year. These emission reports are due May 31 of the following year and are submitted through the federal Single Window Reporting System. Most facilities in BC will also have emission reporting obligations with the federal government. The reporting requirements and processes are similar, reducing the administrative effort for the operator.

**DISCUSSION:**

Climate Action Secretariat (CAS) engaged multiple times with industry stakeholders and industry associations, including meetings and calls with oil and gas, mining and natural gas transmission industry associations. Presentations including information on program design, eligibility and evaluation criteria were provided. An intentions paper about the CleanBC Program for Industry was released in July 2018 and the CleanBC plan was released to the public in December 2018. In addition, relevant Ministries (e.g. Jobs, Trade and Technology, Energy, Mines and Petroleum Resources, Municipal Affairs and Housing, Agriculture) were also briefed on the program. Through this engagement, operations were provided with the necessary information regarding program eligibility. Industry stakeholders who were reporting operations at the time of engagement would have also been contacted directly about the program via email. Any industry operator who was not part of the GGIRCA reporting program and unknown to CAS staff at the time would not have been contacted directly, however may have been informed through their industry association regarding CPI.

The first year of program implementation is a transition year for both CIF and CIIP. Transition-year eligibility and program details differ slightly from subsequent years for the program, allowing time for facilities to adjust to the program and for appropriate program elements to be designed. The 2019/20 budget allocates \$56 million to the CPI for the transition, based on data reported in 2017 emission reports. This amount does not include carbon tax paid by any operator who had not reported emissions under GGIRCA for the 2017 reporting year (as of May 31, 2018) as the calculation of carbon tax paid by industrial operators was based on GGIRCA reporting data.

s.12; s.13; s.21

s.12; s.13; s.21

s.12; s.13

**Contact:**

*ADM: Jeremy Hewitt*

*Div: Climate Action  
Secretariat*

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**Prepared by:**

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*Branch/Region: Clean  
Growth/Victoria*

*Phone: 236-478-1417*

<b>Reviewed by</b>	<b>Initials</b>	<b>Date</b>
DM	MZ	July 2, 2019
DMO	KK	June 25, 2019
ADM	JH	June 25 2019
A/ED	AF	June 17, 2019
PRGM Dir./Mgr.	DD	June 14, 2019





May 16, 2019

Heather Wood  
Secretary to Treasury Board  
Treasury Board Staff  
Ministry of Finance  
PO BOX 9469 Stn Prov Govt  
Victoria BC V8W 9V8

Re: Release of \$10 million in Budget 2019/20 funds for Clean Energy Vehicle Program

Dear Colleague:

I am writing to request interim access to \$10 million (M) of the \$90.847M that was approved as part of Budget 2019 but frozen pending a report back to the Secretary of Treasury Board. Our interim request is due to higher than anticipated uptake of the Clean Energy Vehicle incentive program.

s.12; s.13

s.12; s.13

Our interim request to release \$10M will be added to the vehicle incentive budget as soon as approved, such that there will not be a gap in the incentive program between the 2018/19 funding and the new 2019/20 funding.

I have provided background of our request in Appendix 2, and I have attached a substantive portion of the report back in Appendix 3: the proposed new CEV Program design, approved by the Honourable Michelle Mungall, Minister of Energy, Mines and Petroleum Resources. It demonstrates our advanced progress in meeting the stipulations regarding access to the base budget funding.

We are confident that the \$10M funding will be sufficient to enable the program to continue until our comprehensive report back is ready for your review.

Sincerely,

Les MacLaren

## **Appendix 1: Online “Counter” as at May 16<sup>th</sup>, 2019**

Copyright

## **Appendix 2: Background**

### **Budget 2019:**

Budget 2019 approved \$90.847M in base budget funding for the Clean Energy Vehicle (CEV) Program and the development and implementation of zero-emission vehicle legislation. This funding is frozen pending a report-back to the Secretary of Treasury Board regarding the specific parameters and delivery partners for each sub-program under the CEV Program expansion, and the breakdown of funding toward new full time equivalent (FTE) resources.

Budget 2019/20 also approved-in-principle \$29.46M in access to 2019/20 Contingencies subject to a report-back to the Chair of Treasury Board regarding base budget funding spend across sub-programs and projected spending needs over the remainder of the fiscal year.

### **CleanBC:**

CleanBC committed to continuing the CEV Program while implementing the Zero-Emission Vehicle Act (ZEVA). Targets committed to in CleanBC and ZEV Act are that ZEV sales will increase reaching 10% of new light-duty vehicle sales by 2025, 30% by 2030, and 100% by 2040. The ZEV Act is currently in Committee Stage in the Legislature, and Government's commitment is to implement the legislation in this spring 2019 sitting. ZEV sales as a portion of new light-duty vehicle sales in B.C. were just over 4% in 2018, and have reached approximately 6% in the first quarter of 2019.

The vehicle incentive is the flagship of the Clean Energy Vehicle Program. The vehicle incentives have currently been operating on \$57 million in funds from the September 2017 Budget Update (\$27 million) and two subsequent approved access to contingencies (\$10M in September 2018, and \$20M in December 2018). Starting in mid-2018, the program started seeing higher demand on the vehicle incentives; demand in 2018 was up 220% over 2017. In the latter half of calendar year 2018, and into early 2019, the demand on the vehicle incentives has been approximately \$5 million per month, or approximately \$200,000 per day.

### **Federal Incentives:**

In the March 2019 federal budget, the federal government announced that it would be implementing a \$5,000 incentive effective May 1, 2019 that would be additional to any provincial incentives in the market. Since May 1, the demand on the vehicle incentives has jumped to approximately \$400,000 per day, resulting in the vehicle funds running out sooner than anticipated.

**Appendix 3: Briefing Note – Clean Energy Vehicle Program - Design and Delivery for  
Fiscal Year 2019 (Attached)**

**MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES  
BRIEFING NOTE FOR DECISION**

**I PREPARED FOR:** Honourable Michelle Mungall, Minister of Energy, Mines and Petroleum Resources

**II ISSUE:** Clean Energy Vehicle Program – Design and Delivery for Fiscal Year 2019

**III BACKGROUND:**

There are six main barriers to increased zero-emission vehicle (ZEV) adoption: lack of vehicle supply (both availability and variety); higher up-front costs for consumers; lack of charging / refuelling infrastructure; lack of public awareness; and technological advancement and specialized skills training. The Ministry is applying a market transformation approach to transition the transportation sector to ZEVs, starting first with measures and investments to address market barriers and develop a solid consumer base, and following with regulatory standards to manage fiscal impacts and prevent a return to lower-quality technologies.

British Columbia (BC) currently has the highest rate of CEV adoption in Canada, at over 4 per cent (%) of new light-duty vehicle sales, and one of the largest charging and hydrogen fuelling infrastructure networks, despite making much lower incentive investments than Quebec's and Ontario's (now ended) similar programs. Consumer awareness of ZEVs in BC is higher than the rest of Canada, and customer uptake in both the vehicle and infrastructure incentive programs regularly exceeds projections.

**Budget 2019 Direction**

Table 1 in Appendix A summarizes the CleanBC ZEV program offerings to be delivered by the Ministry, and approved funding allocations in Budget 2019. Funds are frozen pending a report-back to Treasury Board on the key parameters and delivery partners for each sub-program, interactions with any Federal programs, and the breakdown of funding towards new staff resources.

The CleanBC Transportation Budget 2019 submission committed to centralize ZEV program offerings, along with information on measures and quarterly reporting on progress, onto one central online hub and under one CleanBC brand for the public and stakeholders. This would make the ZEV offerings easier to access for consumers, and streamline and coordinate program information across delivery partners and funders.

Budget 2019 only approved one year of vehicle incentives, and deferred funding decisions for 2020 – 2022 to Budget 2020 based on a better understanding of program uptake, performance, and other funding sources such as the federal government. The Budget 2020 submission will need to include options for the continuation of the vehicle incentives, including a reduction of incentives, and a transition to either a PST exemption or incentive delivery by utilities.

**Federal Budget 2019**

The 2019 Federal Budget committed to a two-year, cross-Canada, point-of-sale vehicle incentive program. Program details announced April 17, 2019 indicate vehicles with battery

capacities over 15 kWh will receive a \$5,000 incentive, while vehicles with a battery capacity below 15 kWh will receive a \$2,500 incentive. This aligns with BC's current incentive design. The Manufacturer Suggested Retail Price (MSRP) Federal vehicle eligibility thresholds will be set as follows: for vehicles with six seats or less, base level MSRP limits of \$45,000 up to a maximum trim-level MSRP of \$55,000; and for vehicles with more than six seats, base level MSRP limits of \$55,000 up to a maximum trim-level MSRP of \$60,000.

Purchases made after May 1, 2019 will be eligible for incentives. Federal staff anticipate that they will only have their third-party program infrastructure in place by July or August. Until the third-party system is established, customers will still have access to the incentive at the point-of-sale, but dealers will be required to submit applications for the incentive to the federal government directly for reimbursement.

The federal government is also proposing to deliver a public Level 2 charging station program. It intends to consult with provinces and stakeholders in spring 2019 on the program design. At this time, it is anticipated that the program will only support publicly-accessible charging stations as opposed to privately-owned charging stations. Although Ministry staff do not currently foresee significant overlap with the CleanBC home and workplace charging incentives, they will continue to coordinate with the federal government, and may propose program modifications in the future to better leverage federal funding and reduce any program overlap.

#### **IV DISCUSSION:**

The new ZEV targets set by the Province in legislation, along with the expanded ZEV program commitments in CleanBC, require taking the program and outreach efforts to the next level. There is a significant need to streamline the customer experience, while ensuring all relevant stakeholders (automakers, dealers, utilities, infrastructure providers, local governments, and ZEV interest groups) are working together to achieve the ambitious targets. There is also a need to consider the level and scope of provincial vehicle incentives in the context of the new federal vehicle incentives.

There are five key decisions required to finalize the CleanBC ZEV program design for fiscal year 2019/2020:

1. Delivery model;
2. Marketing funds;
3. Vehicle price eligibility for provincial incentives;
4. Base vehicle incentive levels; and
5. Affordability incentive mechanism.

The design of the current CEV Program is detailed below in the context of the above-noted five decision areas.

#### **Current CEV Program (Status Quo)**

##### **1. Delivery Model**

The CEV Program offerings are delivered on behalf of the Province by numerous delivery agents to reduce internal administration costs and extend program reach, by leveraging their administration systems, existing public and business relationships, and in-kind contributions.

However, the CEV Program currently suffers from lack of a coordinated communications strategy and mixed branding across the suite of program offerings.

Customer experience for receiving the light-duty vehicle incentives is streamlined at the point-of-sale by working directly with the BC New Car Dealers Association (NCDA). These are marketed as Government of BC CEVforBC incentives. Home and workplace infrastructure incentives are delivered through a separate application process post-installation, resulting in a less streamlined experience for consumers than the vehicle incentives. These are marketed as Government of BC incentives delivered by Plug-In BC.

Public fast charging and hydrogen fuelling investments are marketed as Government of BC investments, but delivered by Natural Resources Canada and the Canadian Hydrogen Fuel Cell Association, respectively, to allow for a streamlined process for proponents accessing provincial and federal funding. The medium- and heavy-duty vehicle incentives are offered as mail-in rebates for consumers and marketed as Government of BC Specialty Use Vehicle incentives delivered by Plug-In BC.

While the [www.gov.bc.ca/cleanenergyvehicleprogram](http://www.gov.bc.ca/cleanenergyvehicleprogram) site provides one online platform for consumers to find information on all CEV Program offerings, it is not a marketing site, and largely re-directs customers to a variety of other sub-program websites, namely: CEVforBC; Plug-In BC; the Advanced Research and Commercialization Program of BC; and the Canadian Hydrogen and Fuel Cell Association. The result is a disjointed experience for consumers on ZEVs and what programs might be available in BC.

## 2. Marketing funds

Overall marketing funding from the Province to-date for the suite of CEV Program offerings has been quite limited at approximately \$300,000 per year across all sub-programs, and not well coordinated across the various sub-programs in terms of look and feel. Approximately \$100,000 per year is allocated to marketing of the CEVforBC vehicle incentives and delivering consumer ride-and-drive events around the province. Approximately \$200,000 per year is allocated to the development and dissemination via partners of public awareness information and materials on ZEVs, and to support public outreach activities and ride-and-drives led by local governments and community organizations.

For targeted public education and outreach, the Province has an existing agreement with the Fraser Basin Council, with funds already allocated, that runs until March 31, 2021, for the Emotive outreach program. Emotive is a partnership program, borne out of a need to help grass-roots-level ZEV outreach activities have consistent messaging and strategies without being tied to one organization. Through Emotive, the Province develops consistent ZEV outreach materials on behalf of local governments and community organizations to support their public outreach on ZEVs including events and ride-and-drives. The Emotive program also provides financial support and guidance to community-run ZEV events. Because of the existing agreement and funds with the Fraser Basin Council and community organizations, the Province is not in a position to cancel the Emotive program.

## 3. Vehicle price eligibility threshold

Vehicle incentives are only available on ZEVs with a base model Manufacturer Suggested Retail Price (MSRP) below \$77,000. The CleanBC Transportation Budget 2019 submission committed to reduce the vehicle MSRP eligibility threshold from \$77,000 to \$65,000.

#### 4. Base vehicle incentive levels

Hydrogen fuel cell vehicles receive a \$6,000 incentive, battery-electric and plug-in hybrid electric vehicles with batteries over 15 kWh receive a \$5,000 incentive, while those with batteries below 15 kWh receive a \$2,500 incentive.

#### 5. Affordability incentives

The current program does not offer affordability incentives. The CleanBC Transportation Budget 2019 submission proposed an affordability incentive of \$2,000/ZEV on top of the base ZEV incentives if the Province was not pursuing a used ZEV PST exemption.

### **V OPTIONS:**

Options for the CleanBC ZEV program design for fiscal year 2019/2020 are detailed below.

#### 1. Delivery Model

**Option 1 (Recommended):** ZEV program under one CleanBC brand: Province-BC Hydro partnership on marketing. Other delivery partners offering back-end administration where necessary for ease of consumer access (e.g. NCDA on vehicle incentives, FortisBC on infrastructure within their territory) or ensuring funds are outside of the Government Reporting Entity within the fiscal year (e.g. NRCan on public charging stations).

##### **Considerations:**

- Streamlines the ZEV customer experience by providing customers with a single access point for comprehensive ZEV incentive and program information;
- Leverages utility experience and program marketing expertise to ensure robust adoption of ZEVs to meet CleanBC targets;
- Maintains vehicle incentives for customers at point-of-sale by using the NCDA as the back-end administrator;
- Both BC Hydro and FortisBC have indicated an interest in partnering with the Province on the ZEV program. This model involves the marketing of the vehicle incentives branded as Province-BC Hydro only;
- To ensure Province-wide coverage of the CleanBC transportation programs, FortisBC would still need to be involved in delivering infrastructure programs within their service territory. For these programs, the Province-BC Hydro co-branding would need to be carefully coordinated with any separate FortisBC messaging;
- Ensures Budget 2019 funds are expended outside the Government Reporting Entity within fiscal year 2019 by maintaining some back-end administration role for third party delivery agents. Where funds can be spent within the fiscal year (e.g. home and workplace charging incentives, some fleet and medium/heavy-duty projects), funds would be allocated directly to BC Hydro for programs. Where that is not possible (e.g. public fast charging, hydrogen fuelling, some fleet and medium/heavy-duty program components), the Province will need to continue to work with third parties to allocate the funds to projects over time; and
- GCPE-HQ is planning on having the one-stop web portal available for the launch of the incentives in May / June 2019, with expansion of the portal to include the other program areas in time for fall 2019.



**Option 2:** ZEV program under one CleanBC brand: Province-utility (BC Hydro & Fortis) partnership on marketing, with other delivery partners only offering back-end administration where necessary for ease of consumer access (e.g. NCDA on vehicle incentives) or ensuring funds are outside of the Government Reporting Entity within the fiscal year (e.g. NRCan on public charging stations).

**Considerations:**

- Same benefits as Option 1, with the exception of including FortisBC from marketing.
- BC Hydro has indicated a concern with co-branding with FortisBC on ZEVs, as it could put its own brand at risk because of the association of FortisBC with fossil fuels through their natural gas offerings. GCPE-HQ and BC Hydro will need to agree on the final branding and one-stop-shop online portal design that can leverage the positive BC Hydro brand but still ensure provincial coverage across the two utility territories.

**Option 3:** Status Quo

**Considerations:**

- Not aligned with the CleanBC Transportation Budget 2019 submission intent to streamline program offerings under one CleanBC brand.
- Does not leverage full potential of utility partners.

**2. Marketing Funds**

**Option 1 (Recommended):** Seek Treasury Board approval for additional marketing funding for ZEV programming, either through GCPE-HQ or by re-profiling a portion of the existing ZEV program funding. BC Hydro also provides an increased contribution.

**Considerations**

- Higher cost than current planned GCPE-HQ investment. Total estimated marketing investment of \$2.2 million - \$2.8 million in 2019: Government contribution of \$1.9 million - \$2.3 million, and BC Hydro contribution of \$585k - \$785k.
- GCPE-HQ is planning to build the central online portal for ZEV programming and is currently proposing to brand it as [www.goElectricbc.ca](http://www.goElectricbc.ca). This will ultimately become the one stop shop for all ZEV program offerings in BC once all program elements were launched. For the June 2019 re-launch of the vehicle incentives the site will focus on incentives.
- One risk with the “Go Electric” contemplated by GCPE-HQ is the alienation of hydrogen (although hydrogen fuel cells are electric drive) and other low-carbon fuels (e.g., biofuels) from the public discourse on CleanBC transportation programs. This could hamper the ability of the Ministry to effectively promote and increase the adoption of the range of zero- and low-carbon fuels needed to meet the CleanBC targets. There may be an opportunity for the Ministry to intervene in the branding exercise to support a more fuel-neutral approach.
- Some local governments have indicated an interest in being able to top-up the provincial home and workplace charging incentives for their residents. These local

governments have indicated a preference for one-stop online portal where their incentives could be advertised and accessed by customers along-side CleanBC and utility incentives. This further emphasizes the value of the one-stop online portal.

- GCPE-HQ is also planning production and media buy for ZEV broadcast/digital advertising for late spring 2019. BC Hydro is planning a campaign around infrastructure, focused on “Dave’s electric road trip” around the province, for the fall of 2019.
- Any information related to incentives that are delivered through Emotive events would have the CleanBC branding, and, under the new model, BC Hydro has indicated they could work with Emotive partners to improve delivery of outreach activities.
- Aligned with BC Hydro proposal.
- GCPE-HQ has indicated that Treasury Board might be reluctant to approve more marketing funds out of the program budget. In this case, the Province would work with BC Hydro within the limits of the current combined funds available and scale the marketing efforts accordingly.

**Option 2:** Use existing approved marketing budgets between GCPE, BC Hydro and the ZEV programming. Await direction from GCPE-HQ on potential need to request re-allocation of ZEV program budgets to support greater marketing efforts.

#### **Considerations**

- Total estimated marketing investment of <\$1 million in 2019, including: BC Hydro planned \$285k; ZEV programming \$300k (a portion of which for Emotive); and GCPE-HQ planned spending on website, production and media buy for ZEVs.
- Still has same online portal and Spring 2019 marketing spend by GCPE-HQ, but lower ongoing funding towards marketing and outreach.
- This amount is already a significant increase from previous ZEV program marketing budgets.
- Provides higher investment than previous years towards ZEV program marketing, without needing to propose additional marketing budgets to Treasury Board.

### 3. Vehicle price eligibility for provincial incentives

**Option 1 (Recommended):** Reduce the MSRP eligibility threshold for base vehicle incentives to \$65,000, as per the CleanBC Transportation Budget 2019 submission. Allow the Minister to exempt some early-market vehicles from the eligibility threshold, such as hydrogen fuel cell vehicles and upcoming electric pick-up trucks.

#### **Considerations**

- One set threshold is less complicated to communicate to industry and consumers.
- Larger SUVs, pick-up trucks, and the longer-range ZEVs are expected to still be priced above \$45,000 as they come to market. Consumers in this market segment are expected to be more difficult to encourage to move into a ZEV.
- Placing the price eligibility cap at \$65,000 allows the Province to support customers only willing to purchase SUVs or light trucks in this early market where there a limited ZEV options. This ability to ensure customer affordability in these bigger vehicle classes will be critical to achieving the CleanBC targets in rural and northern regions.
- It reduces the price threshold slightly from the current \$77,000, indicating a move towards directing more funds towards the more affordable ZEVs.
- This would eliminate the Volvo plug-in hybrids that offer a low all-electric range and currently only make up a fraction of the ZEV program expenditures.
- Hydrogen fuel cell vehicles are still priced over \$70,000. In order to support their entrance into the ZEV market, it is proposed to keep the price eligibility threshold at \$77,000 for hydrogen fuel cell vehicles.

**Option 2:** Align the MSRP threshold with the federal limits: for vehicles with six seats or less, \$45,000 base-level MSRP up to \$55,000 for higher trim levels; for vehicle with over six seats, \$55,000 base-level MSRP up to \$60,000 for higher trim levels.

#### **Considerations**

- Federal eligibility requirements are more complicated for industry and consumers to understand, although general messaging on incentives in BC would be simplified (i.e. “aligned with federal incentives”).
- This would remove some more luxury brands such as BMW, Volvo, and Mercedes-Benz from the incentive program.
- This would reduce fiscal pressures of the program.
- It would reduce the overall ability of the program to support SUVs and pick-up trucks, a key market segment necessary for growth in ZEV uptake in BC.
- Lastly, it would remove any hydrogen fuel cell vehicles from the customer program, although these vehicles would still be eligible under the hydrogen fleets program for commercial fleet purchases.
- The Minister could allow exceptions to the threshold for early offerings in certain vehicle segments such as SUVs, pick-up trucks, and hydrogen fuel cell vehicles.

#### 4. Base vehicle incentive levels

**Option 1 (Recommended):** Allow full stacking of the incentives, such that vehicles that receive a federal incentive could also receive the full \$5,000 in provincial funding, resulting in a maximum combined incentive of \$10,000/ZEV.

##### **Considerations**

- Allows continuity and simplicity of the provincial vehicle incentives through 2019.
- Aligns with the Quebec approach. Quebec has indicated that they will be allowing full stacking of the incentives for the foreseeable future, resulting in a \$13,000/ZEV incentive.
- Meets the expectations of the public to-date that the incentives would be stacked.
- The higher incentives might be more important at this stage of market transformation as the program moves beyond the early movers to try to influence the broader, and more hesitant, general public.
- Does not allow the Province to benefit from some cost-savings on vehicle incentives.

**Option 2:** As soon as possible, implement a stacking rule on the vehicle incentives. For vehicles eligible for the federal incentive, the maximum combined incentive would be \$8,000 for vehicles with batteries above 15 kWh, and \$4,000 for vehicles with batteries below 15 kWh (i.e. a provincial contribution of \$3,000 and \$1,500, respectively). For vehicles priced above the federal threshold limits but still within the provincial threshold limits (\$65,000), maintain the current status quo (\$6,000; \$5,000; and \$2,500).

##### **Considerations**

- Allows customers purchasing the most affordable ZEVs to receive higher incentives than previously, while still maintaining continuity of the current level of incentives on vehicles not eligible for the federal incentive.
- Allows the Province to reduce fiscal pressures on the ZEV program, the savings of which can be re-allocated to the affordability incentive, infrastructure investments, or other government priorities.
- Increases complexity of communicating the program to consumers.
- For clarity, public materials on the provincial incentives will need to indicate a lower provincial incentive on vehicles priced below \$45,000 - \$60,000, and the higher provincial incentive for vehicles above the federal levels. This could generate some criticism of more provincial funding going towards higher priced vehicles than lower-priced vehicles.
- The Province could be criticised for pulling back support for the ZEV market in BC while at the same time introducing the *Zero Emission Vehicle Act*, even though BC's ZEV adoption rate is the highest in Canada at lower incentive levels.
- Until the revised provincial rules are approved and launched in the late May/early June time frame, customers purchasing ZEVs will have access to a combined maximum \$10,000/ZEV incentive. The program will likely experience increased customer complaints over the summer months from customers who were unable to get in during the short transition window.

**Option 3:** Remove the provincial vehicle incentive for vehicles that receive the federal incentive.

**Considerations**

- Provides a cost savings.
- Would be viewed negatively by stakeholders and the public, as the Province backing out of commitments made in CleanBC.

s.12; s.13

s.12; s.13

## VI RECOMMENDATIONS:

CleanBC ZEV program design for fiscal year 2019/2020:

Design Element	Recommendation	Decision
1. Delivery Model	Option 1: ZEV program under one CleanBC brand: Province-BC Hydro partnership on marketing, other delivery agents on back-end administration where necessary (e.g. NCDA for incentives at point-of-sale, FortisBC for infrastructure in their service territory)	Approved / Not Approved
2. Marketing funds	Option 1: Seek Treasury Board approval for additional marketing funding for ZEV programming, either through GCPE-HQ or by re-profiling a portion of the existing ZEV program funding. (\$1.9 - \$2.3M)	Approved / Not Approved
3. Vehicle price eligibility	Option 1: Reduce the MSRP eligibility threshold for base vehicle incentives to \$65,000, as per the CleanBC Transportation Budget 2019 submission. Allow the Minister to exempt some early-market vehicles from the eligibility threshold, such as hydrogen fuel cell vehicles and upcoming electric pick-up trucks.	Approved / Not Approved
4. Base vehicle incentive	Option 1: Allow full stacking of the incentives, such that vehicles that receive a federal incentive could also receive the full \$5,000 in provincial funding, resulting in a maximum combined incentive of \$10,000/ZEV.	Approved / Not Approved
s.12; s.13		



Honourable Michelle Mungall  
Minister of Energy, Mines, and Petroleum Resources

### DRAFTED BY:

Christina Ianniciello, Dir, CTB  
250-952-2613

### APPROVED BY:

Dan Green, ED, AEB ✓  
Les MacLaren, ADM, EAED ✓  
Dave Nikolejsin, DM ✓

### Appendices:

Appendix A Budget 2019 ZEV Program  
Appendix B BC Hydro EV Partnership Proposal

## Appendix A

**Table 1: Budget 2019 – ZEV Program**

<b>CleanBC Transportation Budget 2019</b>		<b>2019/20</b>	
<b>\$ thousands</b>	<b>Base</b>	<b>Contingency</b>	<b>Total</b>
<b>EMPR - CEV Program expansion: Light-Duty Vehicles</b>			
Basic vehicle incentives	\$ 41,506	\$ 10,000	\$ 51,506
Affordability top-up vehicle incentives	\$ -	\$ 9,460	\$ 9,460
Home & workplace charging incentives	\$ 4,807	\$ -	\$ 4,807
Public fast charging & hydrogen stations	\$ 20,000	\$ -	\$ 20,000
Fleet challenge	\$ 6,000	\$ -	\$ 6,000
Public outreach	\$ 300	\$ -	\$ 300
New EMPR Staff (2 FTEs)	\$ 315	\$ -	\$ 315
<b>EMPR Subtotal</b>	<b>\$ 72,927</b>	<b>\$ 19,460</b>	<b>\$ 92,388</b>
<b>EMPR - CEV Program expansion: Medium/Heavy-Duty, Port/Airport ground equipment, Bus, Marine, Rail, etc.</b>			
Pilot projects	\$ 5,000	\$ -	\$ 5,000
Vehicle incentives	\$ 2,500	\$ -	\$ 2,500
Infrastructure & Fuels investments	\$ 2,500	\$ -	\$ 2,500
New EMPR Staff (2 FTEs)	\$ 315	\$ -	\$ 315
<b>EMPR Subtotal</b>	<b>\$ 10,315</b>	<b>\$ -</b>	<b>\$ 10,315</b>
<b>EMPR - CEV Program expansion: General</b>			
CEV Jobs Training	\$ 1,000	\$ -	\$ 1,000
CEV Advanced Research & Commercialization	\$ 5,000	\$ 10,000	\$ 15,000
Research, Analysis, Reporting	\$ 300	\$ -	\$ 300
<b>EMPR Subtotal</b>	<b>\$ 6,300</b>	<b>\$ 10,000</b>	<b>\$ 16,300</b>
<b>CleanBC Transportation Programs TOTAL</b>	<b>\$ 89,542</b>	<b>\$ 29,460</b>	<b>\$ 119,002</b>
<b>EMPR - Zero-Emissions Vehicle Act (ZEVA)</b>			
Studies, Enhancement to online reporting tool	\$ 500	\$ -	\$ 500
New EMPR Staff (5 FTEs)	\$ 805	\$ -	\$ 805
<b>CleanBC Transportation - ZEVA TOTAL</b>	<b>\$ 1,305</b>	<b>\$ -</b>	<b>\$ 1,305</b>



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## **BC Hydro Briefing Note**

### **EV Partnership Proposal**

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## Treasury Board – Report

**Minister:** Honourable Michelle Mungall

**Ministry:** Energy, Mines and Petroleum Resources

**Date:** June 4, 2019

Ministry Document #: 03 19/20

**Issue:** Clean Transportation Strategy Budget 2019 Report

### Summary

The Ministry of Energy, Mines and Petroleum Resources (Ministry) is seeking Treasury Board approval for the design of the Clean Energy Vehicle Program and *Zero Emission Vehicles Act* expenditures related to Budget 2019 approved funding.

s.12; s.13

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s.12 ; s.13



s.12; s.13

Contact: Dave Nikolejsin, Deputy Minister  
(250) 952-0504

Honourable Michelle Mungall

June 7, 2019

Date Signed





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s.12 ; s.13



## Treasury Board Submission – Report Back

**Minister:** Honourable Michelle Mungall

**Ministry:** Energy, Mines, and Petroleum Resources

**Date:** 23/09/2019

Ministry Document #: 11-19/20

**Title:** Report Back on the CleanBC Building Innovation Fund

### Issue:

As part of CleanBC, government committed to offering incentives through the CleanBC Building Innovation Fund Program (BIF) to support innovative low-carbon and energy efficient building technologies and practices in British Columbia (BC).

\$1.8 million in Contingencies was allocated to the BIF as part of Budget 2019, with access conditional on a report back to Treasury Board. The first intake of the BIF ran from May 9, 2019 to July 31, 2019. A total of 49 applications were received with funding requests of \$13.8 million.

An inter-ministry review committee selected 14 projects for funding based on criteria including potential for market transformation, potential for broader greenhouse gas (GHG) reductions, and organizational capacity. The Ministry of Energy, Mines and Petroleum Resources (EMPR) is seeking Treasury Board approval for the release of \$1.8 million in Contingencies to fund these 14 projects through the BIF.

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s.12 ; s.13



**Public, Stakeholder & Other Consultation:**

All necessary consultations have taken place, including consultations with other relevant ministries and organizations.

**Appendixes:**

Appendix A – Selected Projects

Appendix B – News Release

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Contact: Dave Nikolejsin, Deputy Minister  
(250) 952-0504

  
Honourable Michelle Mungall

October 2, 2019  
Date Signed



## Appendix A: Selected Projects

Applicant	Location	Project Title	Project Description	Funding Award
<b>Research Projects</b>				
University of Victoria	Victoria	Design solutions for deep energy and emissions retrofits of existing large buildings	This research project will identify and demonstrate design solutions for deep energy and emissions retrofits of existing industrial commercial, institutional, and multi-unit residential buildings.	\$30,000
Morrison Hershfield Ltd.	Province-wide	Improving thermal bridging models	This research project will assess computer-simulated heat loss from thermal bridging against laboratory testing and in-situ performance in order to improve B.C. Energy Step Code energy modelling calculations.	\$30,000
University of Victoria	Victoria	Vacuum insulation panel durability testing	This research project will test the durability and effectiveness of super-efficient vacuum insulated panels for building envelope construction, supported by analytical modelling and field performance data.	\$30,000
MCW Consultants	Vancouver	Wall assembly performance assessment	This research project will assess actual vs modelled U-values for high performance wall assemblies to inform improves guidelines for designers and builders.	\$28,049
British Columbia Institute of Technology	Burnaby	Blue-Green connected roof systems	Blue-Green (BG) connected roof systems are a novel climate adaptive technology that improves building energy performance and benefits the urban environment. This research project will design, build, instrument, and monitor a set of BG systems on test modules and benchmark their performance against various types of roof systems.	\$29,751
Subtotal Research Awards				\$147,800
<b>Commercialization Projects</b>				

s.12; s.13; s.21

Regenerative Applications Inc.	Province-wide	Building Demand 1 & 2	This commercialization project includes a contribution to the development of a suite of free software tools that will allow building professionals to visualize building designs in order to achieve optimal performance and costing outcomes.	\$75,000
SES Consulting Ltd.	Province-wide	Audette	This commercialization project includes a contribution to further develop a commercial energy auditing software tool to allow users to focus on heat pump systems. The software compiles smart meter data and smart (connected) building data in order to create a list of actionable energy and carbon reduction strategies. The enhanced software will allow for users to better understand the implications of installing heat pumps.	\$150,000
CORE Energy Recovery Solutions Inc.	Vancouver	High efficiency counter-flow HRVs and ERVs	This commercialization project will contribute to the development of high efficiency counter-flow HRV for the moderate climate zones of BC and counter-flow ERV (Energy Recovery Ventilation) exchangers for cold BC climate zones.	\$200,000
Winton Homes Ltd.	Prince George	Prefabricated Passive House Building Components for Northern BC Climates	This commercialization project includes a partnership between Design Smart Construction and Winton Homes Ltd. (part of the Sinclair Group) to model and engineer standardized prefabricated wall, floor, and roof components for a Northern BC climate zone targeting Passive House insulation and airtightness specifications, BC Energy Code Step 5, and Net Zero readiness.	\$250,000
Subtotal Commercialization Awards				\$825,000
<b>Demonstration Projects and Programs</b>				
Zero Emission Building Exchange	Vancouver	Net-Zero Energy Ready Homes	This demonstration program will provide incentives to energy-efficient, low-carbon, ground oriented dwellings in the Lower Mainland. It will also collect information from the planning, design, construction, and operation of these projects and share the lessons learned with the B.C. construction industry.	\$484,800



Pembina Institute	Lower mainland	Affordable Housing Renewal Program	This program aims to build capacity and demand for deep resiliency retrofits, with a focus on panelized envelope solutions. Leveraging program development and stakeholder engagement conducted over the past two years, this demonstration program will result in the deep resiliency retrofits of two to five low-rise social housing apartment buildings.	\$250,000
Lambda Science Inc.	Province-wide	StepWin	The project will demonstrate home design and modelling software (StepWin) through five or more regional pilot projects that assist local builders (at any early stage of development). StepWin will assist the builders reach and exceed their local government's BC Energy Step Code requirements and increase the dwelling's energy efficiency while reducing and mitigating building costs.	\$75,000
Stich Consulting & Design Inc.	Invermere	Invermere Passive House	This project involves building a Passive House (PH) office and show home in a rural area of BC to demonstrate above building code building practices and products.	\$17,400
Subtotal Demonstration Awards				\$827,200
<b>Total Awards</b>				<b>\$1,800,000</b>

British Columbia News

## **New CleanBC program boosts energy-saving innovation for buildings**

<https://news.gov.bc.ca/19688>

Thursday, May 9, 2019 2:00 PM

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## **Media Contacts**

**Kent Karemaker**

Media Relations

Ministry of Energy, Mines and Petroleum Resources

250 886-5400

## TREASURY BOARD STAFF BRIEFING NOTE

REQUEST NO.: 385819

T.B. MINOR MEETING DATE: NOVEMBER 7, 2019

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### TITLE: CLEANBC BUILDING INNOVATION FUND REPORT BACK

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#### ISSUE SUMMARY:

- The Ministry of Energy, Mines and Petroleum Resources (EMPR) has submitted a report on the CleanBC Building Innovation Fund (BIF) and requests approval to access \$1.8 million (M) in 2019/20 Contingencies (approved-in-principle in *Budget 2019*).
- Government has publicly committed \$1.8M in BIF funding for projects that accelerate the availability, acceptability, and affordability of low-carbon building solutions (i.e., advanced building designs, new construction methods, and ultra-efficient building components).
- The call for project proposals resulted in 49 applications from across the building sector in British Columbia, representing \$13.8M in funding requests. EMPR's committee-based review process has selected 14 projects totalling \$1.8M.
- BIF applications were due July 31, 2019. EMPR is awaiting TB decision to respond to applicants and notes that many of the projects have near-term time sensitivities.

#### *Previous Reviews of the Proposal*

- *Budget 2019* approved-in-principle \$1.8M from 2019/20 Contingencies for the BIF, subject to a report back to the Chair of Treasury Board (TB).

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s.12; s.13

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## **TREASURY BOARD STAFF BRIEFING NOTE**

**REQUEST NO.: CLIFF # 382724**

**T.B. MINOR MEETING DATE: JUNE 21, 2019**

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### **TITLE: CLEAN ENERGY TRANSPORTATION BUDGET 2019 REPORT BACK**

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#### **ISSUE SUMMARY:**

- The Ministry of Energy, Mines and Petroleum Resources (EMPR) is requesting the Chair of Treasury Board unfreeze its 2019/20 base budget allocation for CleanBC transportation initiatives as follows:

s.12; s.13

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s.12 ; s.13

## EMPR FOI EMPR:EX

---

**From:** MacLaren, Les EMPR:EX  
**Sent:** September 16, 2019 6:44 AM  
**To:** Nikolejsin, Dave EMPR:EX; Sanderson, Melissa EMPR:EX; Cuddy, Andrew EMPR:EX  
**Cc:** Boyd, Wes CSNR:EX; Gosman, Nat EMPR:EX  
**Subject:** FW: CleanBC - Better Homes/Buildings Participation Report (up to July 2019)  
**Attachments:** CleanBC BHBB F20 to July Summary Report - 2019-09-13 1600.pptx

Dave/Melissa/Andrew

I asked Nat to prepare a summary of progress for the CleanBC Better Homes/Better Buildings programs. Please see below and attached for your information. I plan to share this with CAS and TBS. We could add this to our Minister's eBinder and a Roundtable agenda to see if she has any questions/comments.

Les

---

**From:** Gosman, Nat EMPR:EX  
**Sent:** Friday, September 13, 2019 5:33 PM  
**To:** MacLaren, Les EMPR:EX  
**Subject:** CleanBC - Better Homes/Buildings Participation Report (up to July 2019)

Hi Les,

Per your request, please see attached the latest CleanBC Better Homes/Buildings Program Participation Report for the DMO/MO.

Some general commentary on the report for you below. Happy to insert this into a BN format if you like.

### **CleanBC Better Homes and Better Buildings Program Report Summary:**

This report summarises the CleanBC Better Homes and Better Buildings program incentive uptake trends from July 2018 to July 2019. The program was soft launched in July 2018 with the main launch taking place in September 2018. Program incentive uptake projections were designed to approximate seasonal uptake while ramping up to reach the program's three-year greenhouse gas (GHG) reduction target. Projected incentive uptake trendlines are shown as red lines in the figures, representing the average projected incentive uptake.

### **Better Homes Program Overview:**

Better Homes program uptake has been lower than projected but is starting to reach its overall monthly targets. Marketing for Better Homes in Q1 of this fiscal led to increased awareness of the program and in turn increased participation in May-July. Continued marketing in Q2 is expected to have similar results.

### **Better Homes Program Incentives:**

This summary focuses on three of the main incentives categories offered through the Better Homes program: air source heat pump (ASHP), natural gas furnace, and window/door incentives. Analysis of each incentive category is provided below.

- Air source heat pump incentives: uptake has been lower than projected but has been increasing steadily, with a significant increase in June and July during/following the Q1 marketing campaign. Lower than projected uptake is attributed to the following factors, all of which are informing future program design and marketing efforts:

- Low cost of natural gas is leading homeowners to favor natural gas furnaces
  - Aggressive marketing campaigns by FortisBC for natural gas furnaces
  - Lack of public awareness of the benefits of ASHP
  - Preference by contractors for gas furnaces
- Gas furnace incentives: uptake has been higher than projected and is increasing at close to the projected monthly rate.
  - Window/Door incentives: uptake had been lower than projected but increased substantially in June and July during/following the Q1 marketing campaign. On average, actual uptake is trending closely with program projections.

### **Better Buildings Program Overview:**

The CleanBC Better Buildings program includes four incentive offerings targeted at reducing GHGs: Custom Incentives, Custom-Lite Incentives, Social Housing Incentives and Gas Efficiency Incentives. Within these offerings, two main categories of incentives are available: energy study incentives and capital incentives. Generally, the estimated time from project approval to completion for energy study incentives is 6 months, while the estimated timeline for capital incentives is 18 months. These timing estimates will be refined over the course of the program as projects are completed. The Better Buildings program has reached its targeted subscription level for this fiscal year in two of the four program offerings (Custom Incentives and Gas Efficiency Incentives).

### **Better Buildings Program Incentives:**

In general, both energy study incentive and capital incentive approvals have been steadily trending upward. There has been a lag in capital incentive approvals in the Custom, Custom-Lite and Social Housing offerings. However, this lag has been offset by applicants to the FortisBC Commercial Performance Program.

### **CleanBC Better Homes and Better Buildings 2019/20 Q1 Spending:**

Total program spending in Q1 2019/20 was below projections by approximately \$0.64 million. Close to two thirds of this reduction in projected spending was due to lower than anticipated Better Homes incentives uptake, the majority being lower than projected air source heat pump incentive uptake. Q2 spending is expected to track closer to projections given increasing program participation trends.

Nat



**Nat Gosman** | A/Executive Director, Built Environment  
Electricity and Alternative Energy Division  
BC Ministry of Energy, Mines and Petroleum Resources  
O 778.698.7282 (new number)  
C 250.886.1755

# CleanBC Better Homes and Better Buildings Program

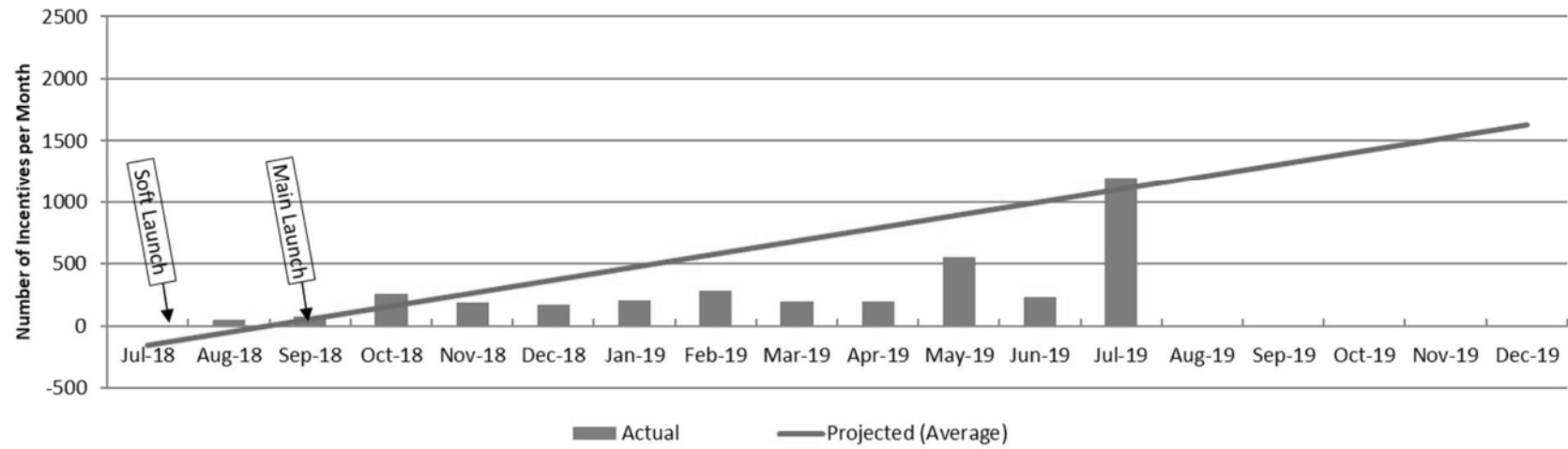
Participation Report  
up to July 2019

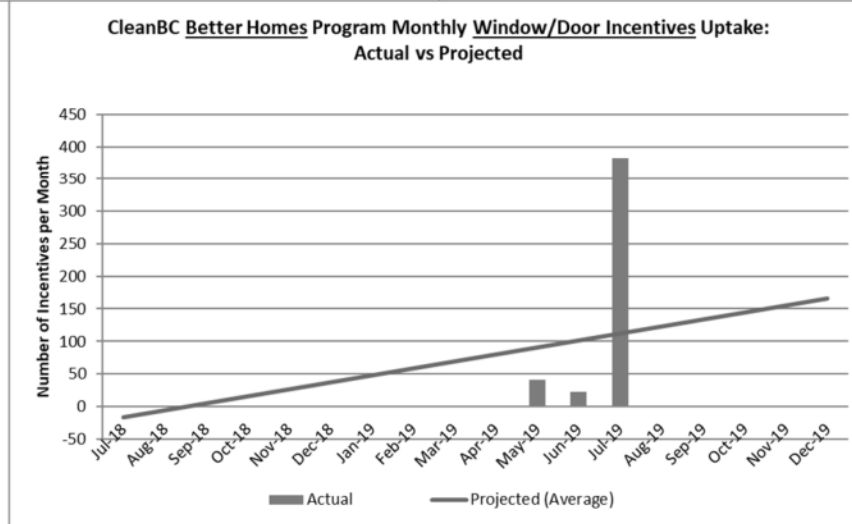
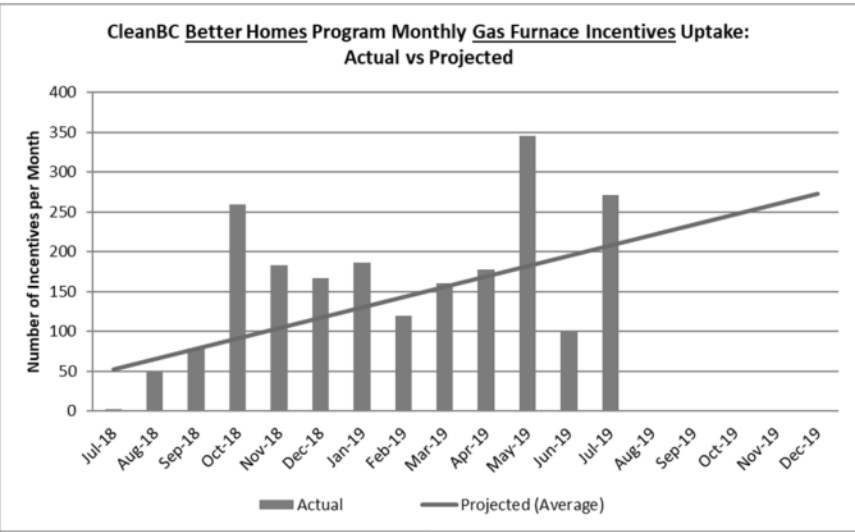
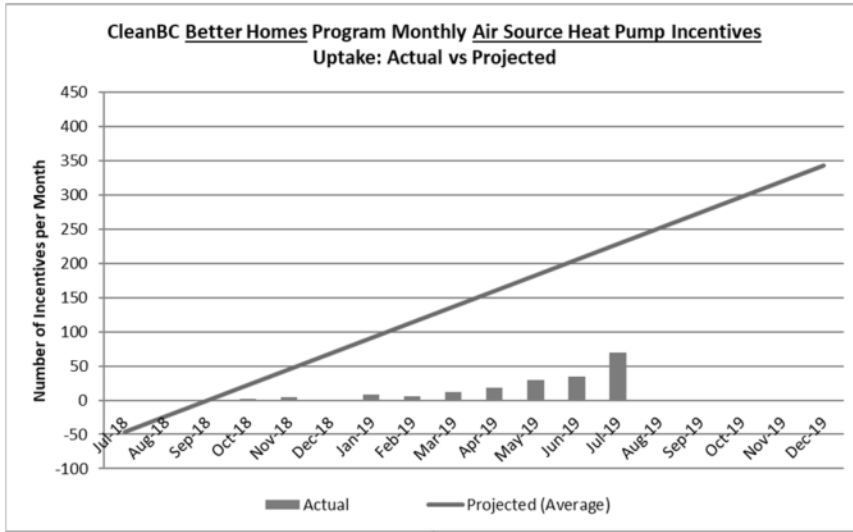


**cleanBC**  
our nature. our power. **our future.**

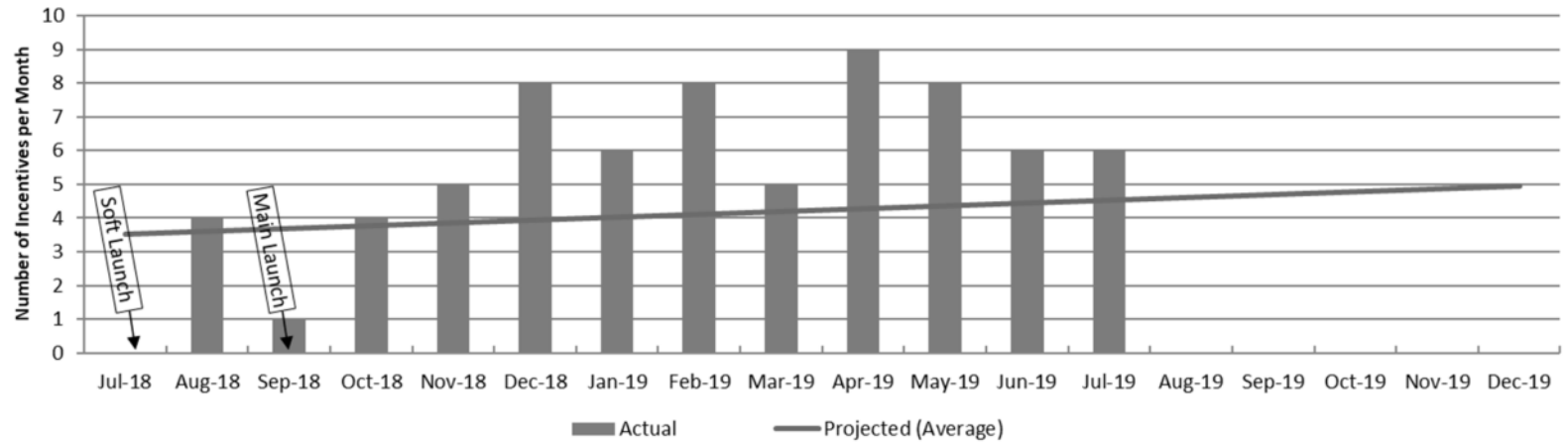


**CleanBC Better Homes Program Monthly Incentives Uptake:  
Actual vs Projected**

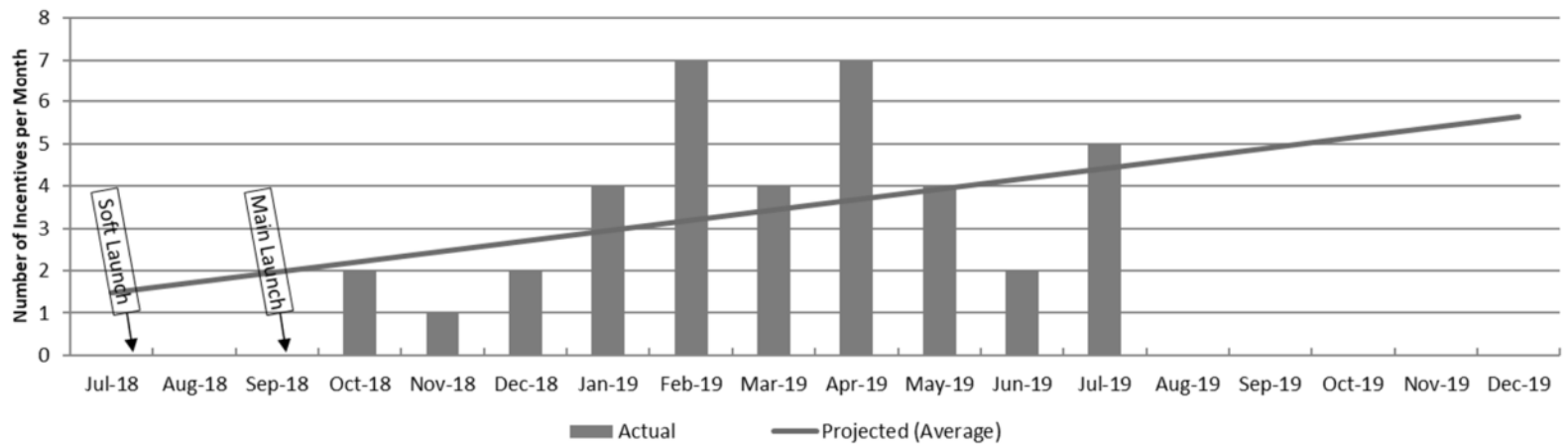


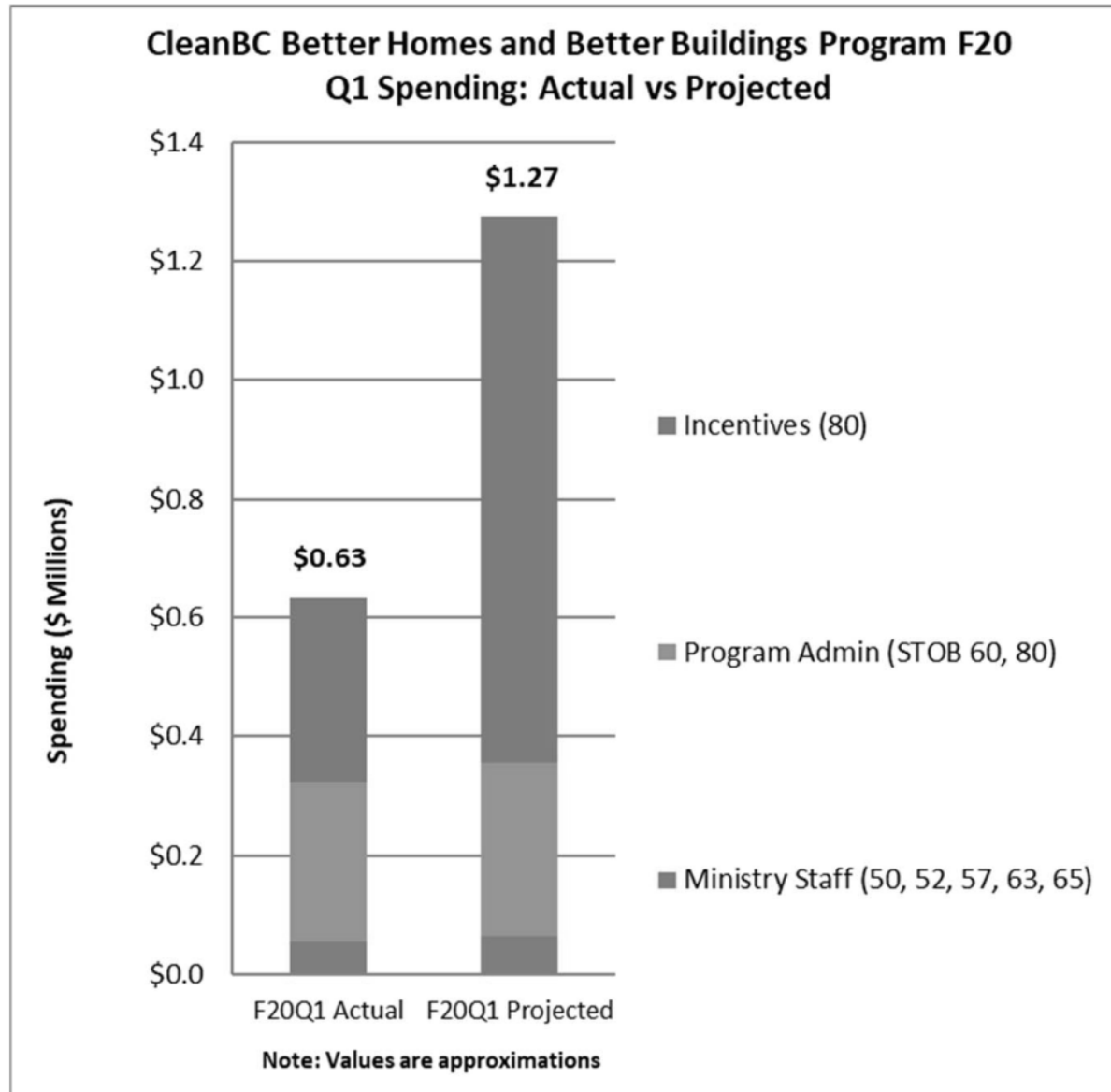


**CleanBC Better Buildings Program Monthly Energy Study Incentive Approval:  
Projected vs Actual**



**CleanBC Better Buildings Program Monthly Capital Incentive Approval:  
Projected vs Actual**





**F20 Q1 - CleanBC Better Homes and Better Buildings Program STOB Breakdown (Federal & Provincial Spending)**

STOB	Description		Actual Spend	% of Total	Notes
50	Base Salaries and Overtime		\$ 43,558	6.9%	
52	Employee Benefits (24.8%)		\$ 11,064	1.7%	
57	Public Servant Travel Expenses		\$ 160	0.0%	
60	Prof Serv-Oper and Reg		\$ -	0.0%	
63	Information Systems-Operating		\$ 410	0.1%	
	GCPE	GDX	\$ 410	0.1%	
65	Office & Business Expenses		\$ 65	0.0%	
67	Info Advert and Publ		\$ -	0.0%	
68	Stat Advert and Publ		\$ -	0.0%	
80	Shared Cost Arrangements		\$ 578,415	91.3%	
	BC Hydro	s.21			
	FortisBC				
	BC Housing				
TOTAL (F20 Q1)			\$ 633,672	100%	
Provincial Base			\$ 316,836	50%	
Federal Contribution (273165F)			\$ 316,836	50%	

## EMPR FOI EMPR:EX

---

**From:** Gosman, Nat EMPR:EX  
**Sent:** October 3, 2019 6:41 PM  
**To:** Parmar, Ranbir S CSNR:EX  
**Cc:** Roland, Michelle CSNR:EX; Boyd, Wes CSNR:EX; MacLaren, Les EMPR:EX; Muncaster, Katherine EMPR:EX; Amy, Chris EMPR:EX  
**Subject:** RE: AS REQUESTED: CleanBC - Better Homes and Better Buildings Update  
**Attachments:** CleanBC BHBB F20 to August Summary Report - 2019-09-27 1000.pptx

Hi Ranbir,

See below and attached regarding the MO's request for an update on the CleanBC – Better Homes and Better Buildings (BHBB) Program. The attached report is updated with results through the end of August and some stats on marketing/web traffic.

- \$15.3M in approved budget was allocated to BHBB in 2019/20, including \$3.9M in CleanBC base budget and \$11.4M in Low Carbon Economy Leadership Fund contingencies (split 50/50 with the feds).
- The BHBB program has spent/expecting invoices for \$2M through Q2 and is expecting an additional \$6-10M in expenditures through the end of fiscal, for a total of \$8-12M in BHBB expenditures in 2019/20. The range is a function of difficulty predicting incentive uptake mid-fiscal year. The business area will have a better forecast by end of Q3.
- Better Homes has disbursed 2,676 rebates in 2019/20 through Q2 and is forecasting an additional 6,436 rebates through the end of fiscal, for a total of 9,112 rebates in 2019/20.
- For context, Better Homes (formerly EfficiencyBC - Residential) disbursed 1,450 rebates in 2018/19.
- Better Buildings has approved 67 energy study and capital incentives through Q2 and is forecasting an additional 54 approved incentives the end of fiscal, for a total of 121 approved incentives in 2019/20.
- For context, Better Buildings (formerly EfficiencyBC – Commercial) approved 61 energy study and capital incentives in 2018/19.

A few points of commentary on BHBB to date and going forward:

- BHBB is a key market transformation initiative driving uptake of high efficiency, low-carbon heating systems to help meet B.C.'s 2030 GHG reduction target and to prepare the market for future building codes and standards.
- BHBB is a multi-year initiative, intended to drive increasing behavior change over time. The rate of this change is hard to predict, but continued market presence is key to success.
- The BHBB portfolio was designed to be nimble, allowing for piloting and continuous improvement over time to maximize participation.
- Despite minimal marketing, BHBB has seen steady month over month growth of incentive uptake in its first year. Program participation across most offers is now tracking to targets, though some incentives have been slower to gain traction.
- s.13; s.17
- Two thirds of forecast BHBB surplus this year is attributed to lower than projected BH air source heat pump incentive uptake as a result of:
  - delayed marketing efforts due to CleanBC rebranding
  - low cost of natural gas is leading homeowners to favor natural gas furnaces
  - lack of public awareness of the benefits of ASHP
  - aggressive marketing campaigns by FortisBC for natural gas furnaces
  - preference by contractors for gas furnaces

- Marketing for BH in Q1/Q2 lead to increased awareness of the program and a significant spike in participation from May-July. Continued marketing in Q3 is expected to have similar results.
- The total existing STOB 67 marketing budget for BHBB this fiscal is \$498,566. Relative to standard practice for program marketing this budget is modest, representing approximately 3% of the total approved program budget for 19/20. GCPE staff advise that 5% is minimum standard practice.
- A request to reprofile an additional \$500,000 of STOB 80 surplus to STOB 67 (bringing total to 6%) to more aggressively market the program this fiscal was rebuffed earlier this year.
- Increasing the budget for marketing and outreach activities to drive greater BHBB participation should be considered.
- s.13

Regards,  
Nat



**Nat Gosman** | A/Executive Director, Built Environment  
Electricity and Alternative Energy Division  
BC Ministry of Energy, Mines and Petroleum Resources  
O 778.698.7282 (new number)  
C 250.886.1755

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**From:** Parmar, Ranbir S CSNR:EX  
**Sent:** October 3, 2019 11:39 AM  
**To:** Gosman, Nat EMPR:EX  
**Cc:** Roland, Michelle CSNR:EX ; Boyd, Wes CSNR:EX ; MacLaren, Les EMPR:EX  
**Subject:** FW: AS REQUESTED: Conference Info

Hi Nat.

We have some follow-up questions from the MO and this came about as a follow-up to a debrief with the MO yesterday on our ministry savings package.

I have highlighted the specific questions that Wes received this morning in yellow below.

To keep things simple, do we have something already prepared that would address these 2 points specifically. Attached is a deck from July which we are trying to confirm if it has gone to the MO already? Also do you have a slide possibly that also would address bullet 2 the two budget numbers being quoted so they can see that as well?

As we need to get back to the MO very quickly, appreciate your input. Thanks.

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**From:** Boyd, Wes CSNR:EX  
**Sent:** October 3, 2019 11:31 AM  
**To:** Roland, Michelle CSNR:EX <[Michelle.Roland@gov.bc.ca](mailto:Michelle.Roland@gov.bc.ca)>; Parmar, Ranbir S CSNR:EX <[Ranbir.Parmar@gov.bc.ca](mailto:Ranbir.Parmar@gov.bc.ca)>  
**Subject:** RE: AS REQUESTED: Conference Info

Thanks Michelle, can you check if the Better Homes report has gone to MO?

Wes

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**From:** Roland, Michelle CSNR:EX  
**Sent:** October 3, 2019 11:19 AM  
**To:** Boyd, Wes CSNR:EX <[Wes.Boyd@gov.bc.ca](mailto:Wes.Boyd@gov.bc.ca)>; Parmar, Ranbir S CSNR:EX <[Ranbir.Parmar@gov.bc.ca](mailto:Ranbir.Parmar@gov.bc.ca)>  
**Subject:** RE: AS REQUESTED: Conference Info

Ok – we are on it.

We have the conference piece started, will get going on the other pieces. Everything will depend on how quickly folks get detailed forecasts back to us.

For Better Buildings - I have attached a report out that recently went to MO or perhaps it has not got there yet. Is this sufficient, if not I can check in with Nat to get further details.

Thanks,  
Michelle  
778-698-3752

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**From:** Boyd, Wes CSNR:EX  
**Sent:** October 3, 2019 10:37 AM  
**To:** Roland, Michelle CSNR:EX <[Michelle.Roland@gov.bc.ca](mailto:Michelle.Roland@gov.bc.ca)>; Parmar, Ranbir S CSNR:EX <[Ranbir.Parmar@gov.bc.ca](mailto:Ranbir.Parmar@gov.bc.ca)>  
**Subject:** RE: AS REQUESTED: Conference Info

Hi Michelle/Ranbir, I had a call from MO and he has this list attached from awhile back.....not sure when as it came from Ryan Forman.

MO would like:

- SRR – breakdown by STOB of O&G Division and what deferred. I suggested its mostly salaries and benefits that are lagging but need to double check.
- a listing of the conferences attended and the amounts, plus the conferences proposed to attended
- list of STOB 60 Professional Services contracts - to date and proposed
- ADM travel to date and projected and if possible in Province and Out of Province

For Les M shop:

- Status Update of Better Buildings program
- how much of the \$5.7m plus \$6m has been spent to date, plus number of rebates and projected

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**From:** Roland, Michelle CSNR:EX  
**Sent:** October 3, 2019 10:26 AM  
**To:** Boyd, Wes CSNR:EX <[Wes.Boyd@gov.bc.ca](mailto:Wes.Boyd@gov.bc.ca)>; Parmar, Ranbir S CSNR:EX <[Ranbir.Parmar@gov.bc.ca](mailto:Ranbir.Parmar@gov.bc.ca)>  
**Subject:** RE: AS REQUESTED: Conference Info

Hi,



This does not have any amounts associated with the conferences. We have an email out to the ADMs right now asking for confirmation of their forecasts. Does the attached satisfy the MOs questions or should we continue with pulling the amounts together?

Thanks,  
Michelle  
778-698-3752

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**From:** Boyd, Wes CSNR:EX  
**Sent:** October 3, 2019 10:11 AM  
**To:** Parmar, Ranbir S CSNR:EX <[Ranbir.Parmar@gov.bc.ca](mailto:Ranbir.Parmar@gov.bc.ca)>; Roland, Michelle CSNR:EX <[Michelle.Roland@gov.bc.ca](mailto:Michelle.Roland@gov.bc.ca)>  
**Subject:** FW: AS REQUESTED: Conference Info

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**From:** Cuddy, Andrew EMPR:EX  
**Sent:** October 3, 2019 9:53 AM  
**To:** Boyd, Wes CSNR:EX <[Wes.Boyd@gov.bc.ca](mailto:Wes.Boyd@gov.bc.ca)>  
**Subject:** FW: AS REQUESTED: Conference Info

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**From:** Cochrane, Marlene EMPR:EX  
**Sent:** July 9, 2019 12:24 PM  
**To:** Sanderson, Melissa EMPR:EX <[Melissa.Sanderson@gov.bc.ca](mailto:Melissa.Sanderson@gov.bc.ca)>  
**Cc:** Duncan, Kate EMPR:EX <[Kate.Duncan@gov.bc.ca](mailto:Kate.Duncan@gov.bc.ca)>; Cuddy, Andrew EMPR:EX <[Andrew.Cuddy@gov.bc.ca](mailto:Andrew.Cuddy@gov.bc.ca)>  
**Subject:** AS REQUESTED: Conference Info

Hi Melissa. I understand that you asked Ryan for the attached general information on Conferences. Dave has reviewed and approved. Thank you.

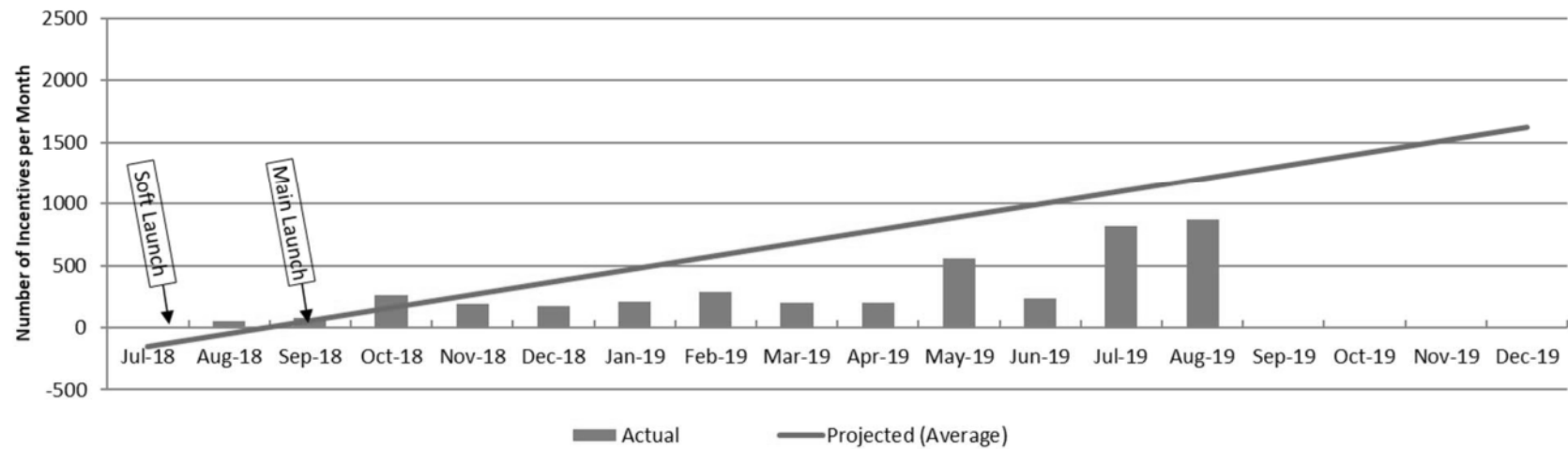
Marlene Cochrane  
Executive Coordinator | Deputy Minister's Office  
Ministry of Energy, Mines and Petroleum Resources  
Victoria | British Columbia  
Phone (778) 698 7254

# CleanBC Better Homes and Better Buildings Program

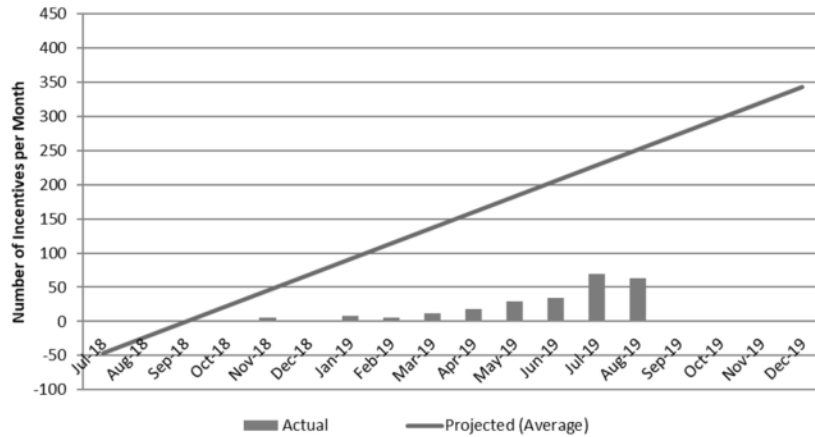
## F20 Participation Report through August 2019



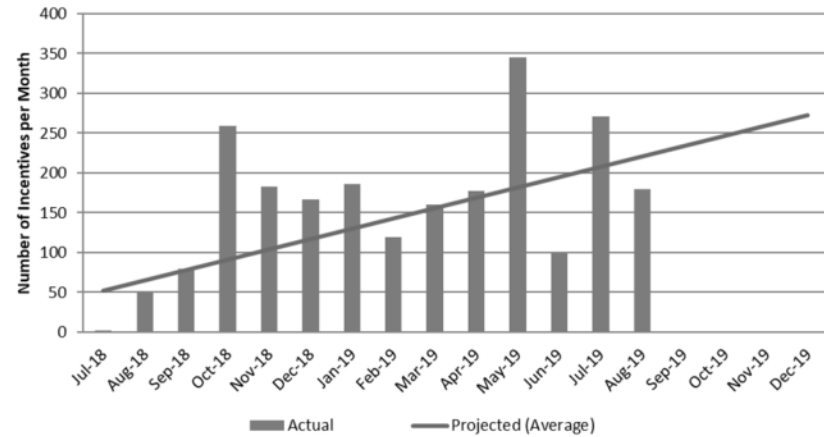
**CleanBC Better Homes Program Monthly Incentives Uptake:  
Actual vs Projected**



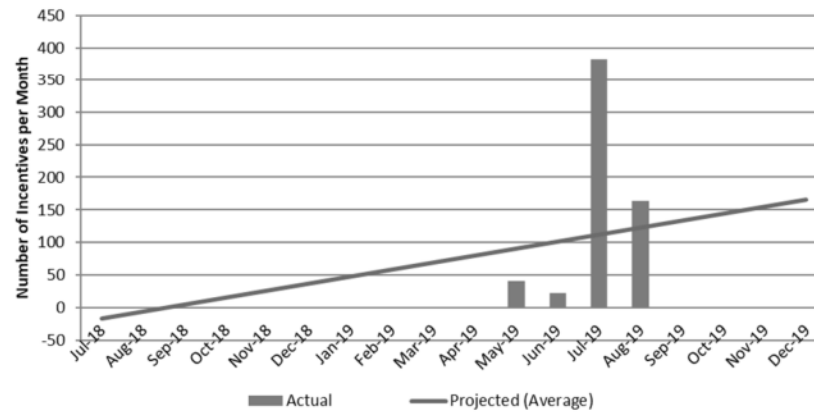
**CleanBC Better Homes Program Monthly Air Source Heat Pump Incentives Uptake: Actual vs Projected**



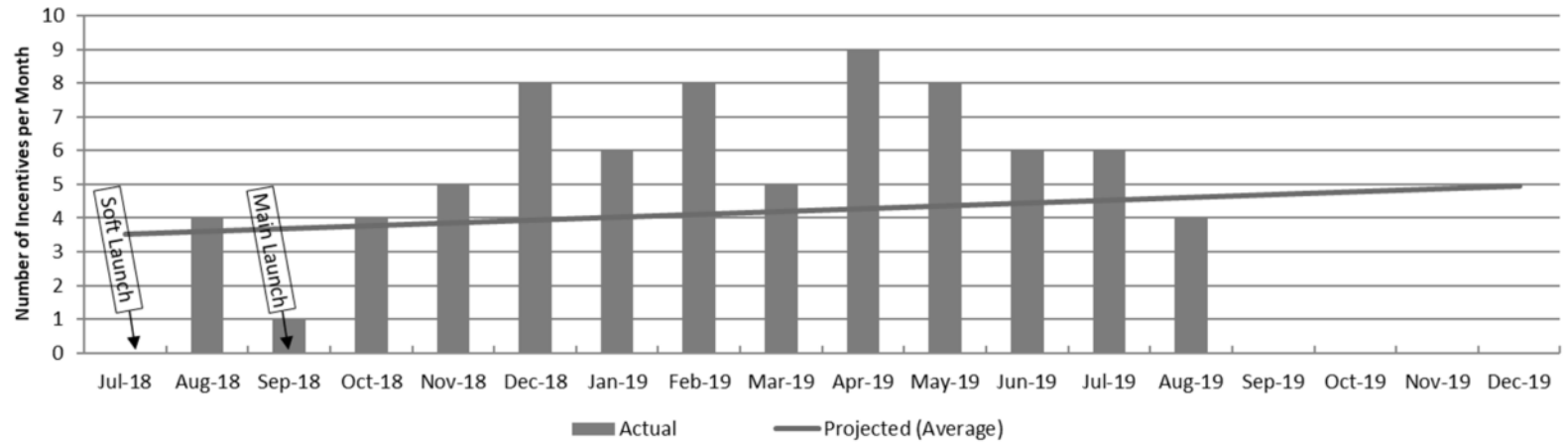
**CleanBC Better Homes Program Monthly Gas Furnace Incentives Uptake: Actual vs Projected**



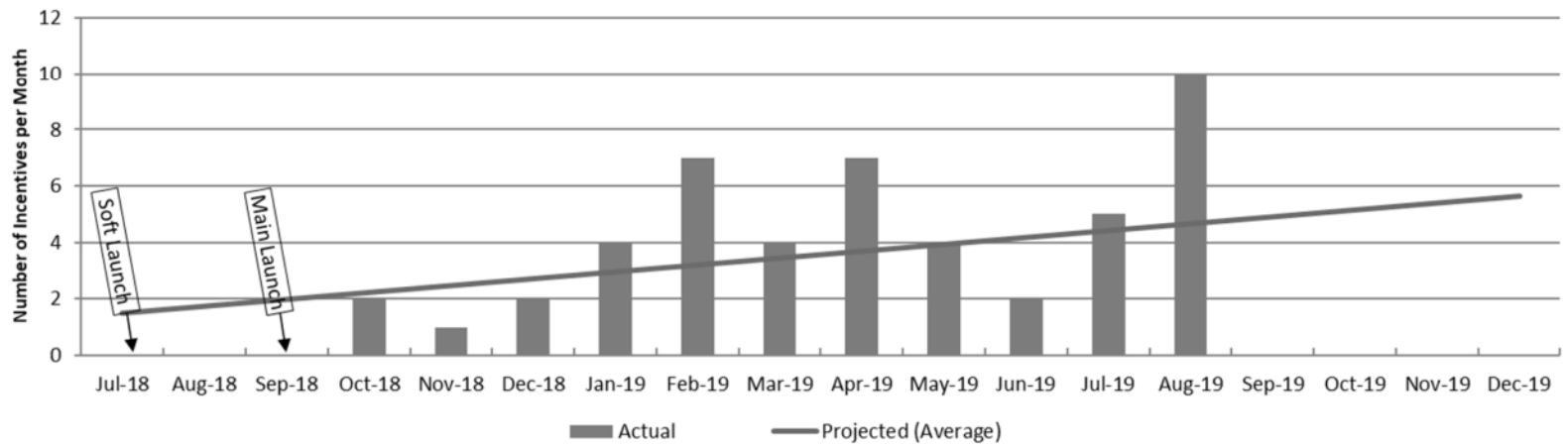
**CleanBC Better Homes Program Monthly Window/Door Incentives Uptake: Actual vs Projected**



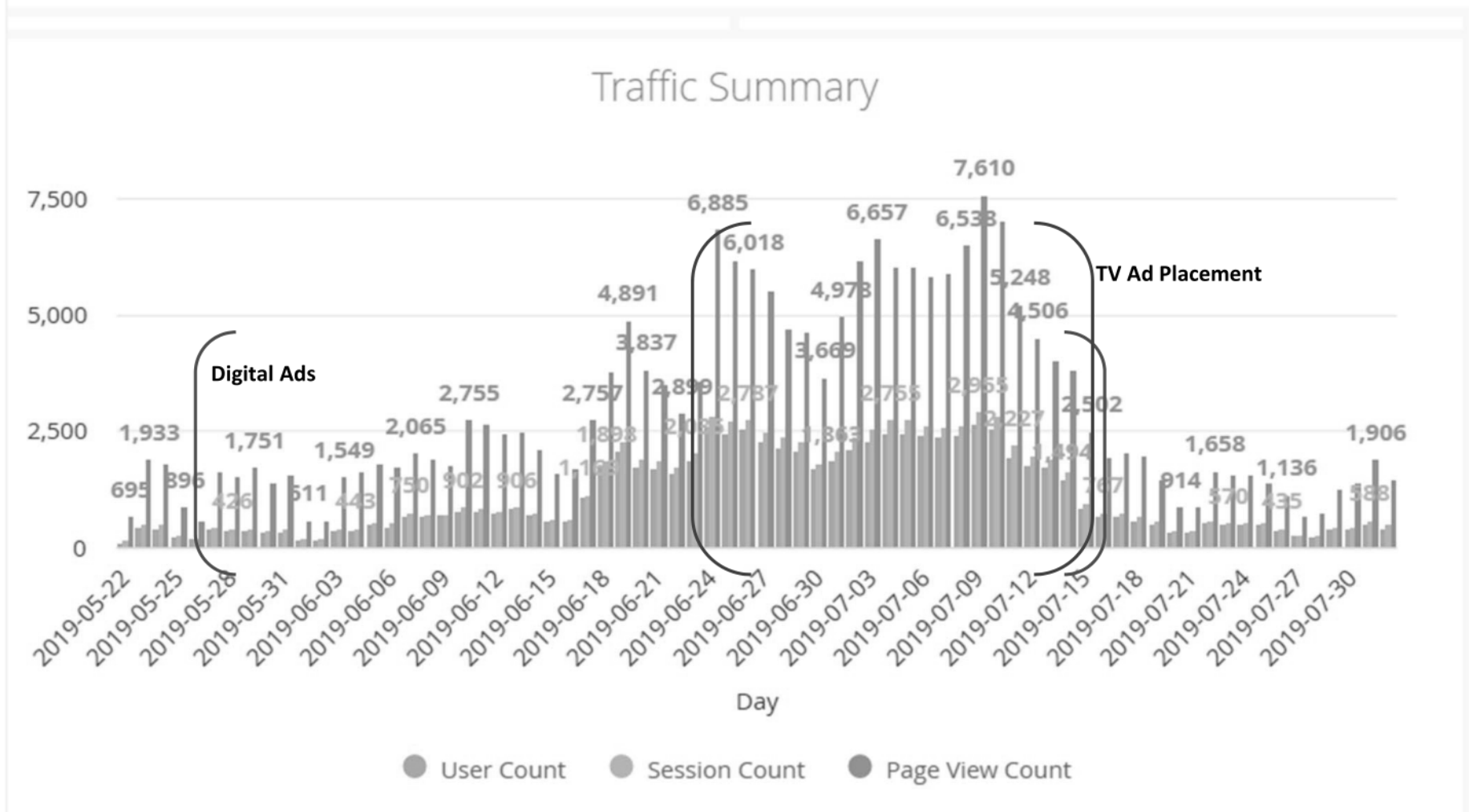
**CleanBC Better Buildings Program Monthly Energy Study Incentive Approval:  
Projected vs Actual**



**CleanBC Better Buildings Program Monthly Capital Incentive Approval:  
Projected vs Actual**



# Better Homes Marketing Campaign & Web Traffic



## Spring 19/20 Campaign:

- \$410K on TV Ad Placement (GCPE Funded)
- \$150K for Digital Ads (Better Homes Budget)

## Fall 19/20 Campaign:

- \$150K for Digital Ads (Better Homes Budget)
- \$68K for Direct Mailing