In line with its mandate, B.C.’s Climate Solutions Council has two critical items it wishes to bring to your attention. Recent ministry modelling shows that B.C. is not at present on track to meet its 2030 greenhouse gas (GHG) emissions target and will need to find an additional 8-11 million metric tonnes of emissions reductions beyond what is currently contemplated in CleanBC by 2030. To address this gap, the Council has undertaken its own modelling work and has advice on actions B.C. can take to achieve these targets while supporting sustainable economic growth and advancing an ambitious climate agenda that leaves no one behind. The modelling demonstrates that the 2030 target is achievable. Meeting or exceeding the 2030 target is a critical milestone in achieving a net zero target by 2050.

Achieving the British Columbia government’s 2030 GHG emissions target

To address the gap between B.C.’s 2030 emissions target and the estimated 2030 emissions that would result from the current slate of policies in its CleanBC initiative, the Council (in collaboration with CAS staff) engaged Navius Research Inc to model emission reduction pathways. While modelling, by its nature, is not precise, it is the best tool available to inform our advice. Navius evaluated policy options for achieving additional GHG reductions relative to CleanBC by:

- Identifying low cost emission reduction opportunities;
- Evaluating two different policy approaches to achieve low cost emission reductions; and
- Identifying the policy ambition required to meet the target under both policy approaches.

The two different policy approaches were:

Policy 1: A carbon price on the economy at a rate sufficient to meet 100% of the 2030 target;  
Policy 2: A set of sector-specific flexible regulations in buildings, transportation, electricity and industry that reach the 2030 target.

Policy Approach 1 demonstrates that if carbon pricing were the only policy that increased in stringency above its CleanBC level, the price would need to rise from its $50 level in 2022 by annual increments of at least $15 per year.

Policy Approach 2 holds the carbon price constant at $50 and then requires increasing the stringencies of existing CleanBC flexible regulations more quickly than under current policy. The modelling suggests the following policy changes as the most effective approaches to emission reductions:
● The zero-emission vehicle mandate should increase from its CleanBC level of 30% of new vehicle sales in 2030 to 40% and perhaps higher. In practice, leading jurisdictions are setting 100% zero emission targets for all new vehicles for dates ranging from 2025 to 2035.
● The low carbon fuel standard would need to increase from a 20% reduction in life-cycle carbon intensity in 2030 to about a 40% reduction. A shift of this magnitude is enabled by a larger drop in transportation carbon intensity due to the more rapid adoption of electric vehicles and the fuel-switch by more trucks to HDRD (a biodiesel); and
● A reduction in the carbon intensity of natural gas (through biomethane and perhaps hydrogen) by increasing the 2030 clean gas portfolio standard from the CleanBC 15% to about 25%.

Strengthening policy design to optimize climate and economic impacts

While the modelling work informs achievable pathways to the targets, government needs to strengthen the policy design details to optimize those potential reductions and reduce barriers to British Columbians and B.C. businesses that want to do the right thing by transitioning to clean energy. We offer three examples to help illustrate this point:

● The BC Hydro Phase 2 review contains promising work but needs to be finalized and recommendations released. The draft recommendations can cost effectively accelerate the switch to electricity for buildings, transportation and industry. BC Hydro’s current rates and connection policies are an unnecessary barrier to electrification.
● The carbon tax rate needs to change from a uniform rate for all liquid fuels to one that recognizes the different carbon intensity of renewable fuels (as has been done for renewable natural gas) to incentivize fleet operators to transition to renewable fuels.
● The Low Carbon Fuel Standard (LCFS) should be a significant economic and carbon reduction opportunity in British Columbia. The ambiguity in the current rules for generating LCFS credits for electric mobility needs to be eliminated to enable the broad spectrum of companies and organizations to undertake investment and benefit from LCFS credits.

In summary, the Council thus strongly recommends the British Columbia government:

1) Commit in 2021 to one of the pathways or an appropriate combined package of the policies to meet the 2030 emission target (e.g. Policy Approach 1, Policy Approach 2, or a mix of the two approaches), while ensuring policies and actions incorporate equity, Indigenous peoples, engagement and competitiveness to ensure success.

2) Direct staff to strengthen and optimize existing policies to maximize emission reduction and strengthen economic opportunities.

The Council reiterates that British Columbia remains 8-11 million metric tonnes short of its 2030 emission target, but that there are concrete actions the government can take to meet its target, which could contribute to job creation, economic opportunities and increased equity and reconciliation in
B.C. The Council also stresses the importance of how these policies are considered and implemented is critical to success. Please review Appendix 1 and 2 for details on these key considerations.

The Council has a productive relationship with the staff in your ministry and we look forward to working with you over the mandate. We would be pleased to advise you at any time to further climate action and clean economic growth, realizing CleanBC and B.C.’s 2030 targets.

Regards,

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Karen Tam Wu, Regional Director for British Columbia, Pembina Institute
Jill Tipping, President & Chief Executive Officer, BC Tech Association
Joie Warnock, Assistant to the President, Unifor
Appendix 1: Advice to support B.C.’s climate action and clean economic growth

The following section summarizes Council advice related to how best implement CleanBC and advance an ambitious climate agenda that leaves no one behind.

Equity
While climate action ultimately improves our health and economic position across society, all policies have impacts, particularly in the shorter-term. We have seen that climate change disproportionately impacts lower income households, women, marginalized communities, and youth. The distribution and scale of impacts associated with climate action policies will differ across society, sectors, regions, and the type of policies that are implemented.

Understanding potential consequences of proposed policies highlights the vital importance of program design. Government must ensure that climate policies are created to be fair and inclusive, and that policies address inequities and alleviate impacts while effectively reducing carbon pollution.

Indigenous Peoples
As the British Columbia government moves to meet the 2030 targets, it is essential that the government meaningfully and appropriately engage Indigenous governing bodies on all policy and program choices. The government must make every effort to collaborate with and support First Nations, with priority for advancing Indigenous peoples, rights, and reconciliation.

Engagement
Government must ensure that climate policies are put through a rigorous engagement process to ensure impacts – intended and unintended – are transparently assessed, communicated, and understood. As the province moves forward with both the implementation of the current CleanBC plan and additional actions required to achieve legislated GHG reduction targets, the government needs to ensure the evaluative process has a commensurate commitment to effective engagement. Understanding and addressing potential consequences of proposed policies is complex, with the evaluation process requiring a deeper, iterative engagement with experts and impacted groups.

Competitiveness and emissions-intensive trade-exposed industries
In B.C., the emissions-intensive trade-exposed (EITE) industries pay the full amount of the carbon tax on their total combusted emissions, but carbon taxes paid above $30 per tonne are returned to industry via the CleanBC Program for Industry. The impact of the $0-30 carbon tax on EITE industries needs to be addressed to prevent carbon leakage to other jurisdictions.

We recommend the government improve the program for EITE industries so that it adequately addresses the competitiveness risks that B.C.’s trade exposed industries face while driving down the sector’s emissions to help meet British Columbia’s 2030 emission target. The Council has initiated this work in parallel with the British Columbia Business Council and expects to provide advice to government shortly.
Appendix 2: Offsets and the previous Climate Solutions and Clean Growth Advisory Council

The previous Climate Solutions and Clean Growth Advisory Council did not provide advice to the government on offsets. However, in the 2019 *Climate Solutions and Clean Growth Advisory Council: Final Report*, the Council did recommend that:

“The B.C. government should be a proactive voice, with the government of Canada, to ensure that any Internationally Traded Mitigation Outcomes (ITMOs – a specific type of international offset mechanism) have a high degree of credibility and transparency. Irrespective of future decisions regarding the use of ITMOs, the B.C. government should also continue to identify and implement opportunities to close the gap to its 2030 targets.”

Opportunities to use offsets to meet climate targets

The Council would like to take this opportunity to reaffirm its expectation that the B.C. government meet or beat its legislated 2030 climate targets. The Council notes that while offsets may assist the B.C. government in meeting 2030 targets, it is also a mechanism and opportunity for the government to exceed its 2030 targets and meet its goal of net zero by 2050. The following provides the Council’s review of offset principles, benefits and challenges.

Characteristics of high-quality offsets

A survey of global best practices identifies high-quality offsets as those meeting the following conditions:

- Offsets must represent real, actual emission reductions.
- Emission reductions must be additional / incremental to what would have occurred in the absence of the offsets payment.
- Offsets must represent emission reductions that are permanent and non-reversible, or if they are reversible, this should be accounted for.
- Sufficient data quantity and quality must be available to ensure emission reductions are verifiable by an independent auditor.
- Emission reductions must be quantifiable through reliable measurement or estimation.
- Offset ownership is enforceable and undisputed where enforcement mechanisms exist to ensure that all program rules are followed, and the program’s integrity is maintained.
- Offsets must provide co-benefits over and above emissions reductions that assist with the reconciliation and self-determination of Indigenous peoples or assist with other equity and inclusiveness goals.
- Offsets must be limited in their role to meet climate targets to ensure that government's focus is predominantly on reducing the emissions from transportation, buildings and industry, and
that they are not used to meet more than some percent of the outstanding gap to a national or sub-national climate target.

- The emissions reductions from offsets must be discounted to reflect the likelihood that some will not be additional despite the best efforts to meet additionality expectations.
- B.C. should not participate in carbon markets without assurance that human rights and the rights of Indigenous peoples will be protected.
- Where possible, offsets used to meet climate targets must be located within a jurisdiction with equal or stronger climate policy.

The Council recognizes that:

- Carbon offsets have been enabled under international law since the 1997 Kyoto Protocol (first used internationally in 2001) and may be enabled under Article 6 of the Paris Agreement to develop a global carbon market to help nations meet their climate targets. There was no agreement reached at COP25.
- Carbon offsets have been used in B.C. since 2009 to assist with British Columbia’s Carbon Neutral Government obligations under the Carbon Neutral Government Regulation.
- CleanBC does not specifically enable or endorse carbon offsets as a means to meet provincial climate targets beyond carbon neutral government operations.
- A number of new and expanded projects that would add to B.C.’s overall emissions have been proposed or are currently in federal or provincial environmental assessment processes. Several of these project proponents are considering the use of offsets; however, these discussions are preliminary.
- In 2019, the Canadian Council of the Ministers of the Environment (CCME) endorsed the Pan Canadian Greenhouse Gas Offsets Framework to provide guidance to jurisdictions that are developing or operating an offset program, with a longer-term goal of having a consistent suite of requirements and transferability across Canada.
- The federal government is also developing the Federal Greenhouse Offset System to encourage cost-effective domestic GHG emissions reductions and removals from activities that are not covered by carbon pollution pricing or that go beyond legal requirements.
- The province has made a strong commitment to reconciliation by enacting the B.C. Declaration on the Rights of Indigenous Peoples Act in accordance with the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).
- Some B.C. Indigenous Nations are interested in stewardship activities in their territories and are looking at forest / land-use carbon offsets to provide medium-term revenue streams.

With the above considerations in mind, the Council would like to note that there are benefits and challenges of employing offsets to meet climate targets, which are summarized as follows:

Benefits of offsets:
• Provides opportunities for entities / emitters to reduce their carbon footprint that otherwise would not be able to afford to do so (e.g. using offset funding to switch remote communities off of diesel power generation).

• Provide opportunities for verified offsets to be utilized while new technologies to reduce GHG emissions are developed and implemented.

• Provides opportunities for entities / emitters to remain viable that would not otherwise be able to do so without offsets (e.g. preventing a facility from closing or locating in a jurisdiction with weaker climate policies).

• Provides opportunities for Indigenous peoples and landowners to derive revenue from stewardship projects on their lands.

Challenges with offsets
• Can be a disincentive for an entity / emitter to invest in carbon reduction (i.e. they buy offsets instead of reducing emissions).

• Can be administratively complex, costly and open to manipulation.

• Some offsets will not be additional (i.e. the projects would have happened without the offset payment).

• Certain types of offsets (e.g. forestry / land use) may not be permanent due to natural or human-caused disturbance (e.g. forest fires, drought) or may take many years to sequester carbon (e.g. planting trees).