

The Honourable John Horgan
Premier of British Columbia

The Honourable George Heyman
Minister, Environment and Climate Change

The Honourable Carole James
Minister, Finance

May 11, 2020

RE: Opportunities to build back better by using CleanBC to support progress on equity and affordability, service delivery and a sustainable economy

Dear Premier Horgan, Minister Heyman, and Minister James,

Thank you for taking the time to meet with the Climate Solutions Council and your invitation to provide advice on the government's approach to supporting British Columbians and our business community in achieving a resilient recovery. The Council includes a diverse membership of individuals spanning business, First Nations, labour, municipal government, academia and the environmental community—this **broad representation is, in our view, a major strength in delivering on our mandate to provide advice to the B.C. government. This initial advice reflects the expertise and diversity of our full council.**

Like most British Columbians, we have experienced—whether firsthand or through the experiences of our families, friends and communities—the impacts of COVID-19 and are anxious for things to return to normal. British Columbians have lost loved ones and thousands have lost their livelihoods. But we have also been paying attention to issues and members of society whose plight has entered the spotlight, from the treatment and pay of our frontline workers, to conditions in long-term care facilities looking after our elders, to the fragility of our local food system and supply chains. Similarly, we have had new and better experiences, from cleaner air in our cities, to enhanced feelings of community solidarity and trust in government to protect and serve our best interests.

These observations and experiences lead us to believe that in charting B.C.'s recovery we shouldn't simply try to get things back to the pre-COVID-19 status quo, **we should aspire for better.** As outlined in CleanBC, "by working together, we can meet the increasing demand for an economy that is productive and forward-looking, while reducing pollution and protecting our climate." **Over the next decade and beyond, we need to transition from fossil fuels to clean electricity, renewable natural gas, hydrogen, and other near zero emissions fuels for how we get around, heat our homes, and fuel our industry—making things better and more affordable for British Columbians.**

To achieve this will require enhanced collaboration with Indigenous Peoples, municipal and federal leaders, as well as our neighbouring states and provinces. The prospect of linking with and benefiting from additional federal resources is, we believe, enhanced by ensuring B.C.'s approach is oriented towards achieving multiple objectives, including reduced pollution and support for low-carbon economic opportunities. When it comes to stimulus, this means seeking out specific projects that are both **“shovel ready” and “shovel worthy.”**

We want to thank you for supporting TransLink and transit services to ensure people have access to safe public transit systems in order to restart the economy.

We reiterate our advice to continue moving ahead with programs, policies, and regulations committed to in Phase 1 of CleanBC, as well as delivering on other commitments. Key actions from Phase 1 of CleanBC include strengthening the low-carbon fuel standard, implementing Zero Emission Vehicle Act regulations, legislating the renewable gas standard, continuing with carbon price increases, and funding CleanBC programs oversubscribed in the past.

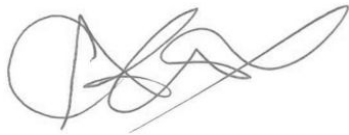
We acknowledge that the implementation of CleanBC has both costs and benefits to businesses. Many of these short-term initiatives to support CleanBC implementation can play an important role to stimulate job creation, ensuring investment in clean growth continues through challenging economic times while also addressing the competitiveness concerns of industry (in particular, the emission-intensive, trade-exposed sectors). The development of a low-carbon industrial strategy was also a key commitment in CleanBC, and this work **needs to proceed with urgency** to improve the competitiveness of B.C.'s industries.

We also strongly emphasize that all stimulus and climate action programs include meaningful capacity for Indigenous communities and ensure that Indigenous community-owned companies are central in stimulus initiatives. We recognize that many Indigenous communities don't have access to revenue tools to finance capacity development to access many new and existing government programs.

To maximize both the economic and job-creating benefits of post-COVID-19 stimulus, investments related to CleanBC should be both accelerated and increased. By increasing the pace and scale of these programs, B.C. can both create more stable employment opportunities and achieve additional emission reductions that assist in getting the province on track for our 2030 climate change targets. Appended to this letter is our initial advice for how these twin goals can be achieved through efforts targeting buildings, transportation, and industry.

As a next step, we would like to work with provincial staff to refine these ideas, helping estimate the required investments, benefits and timeframe that would inform your decision-making around B.C.'s recovery. We look forward to following up with additional ideas in the near future and discussing our advice with you in more detail.

Sincerely,



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Buildings

The energy used in homes and buildings—for heating and air conditioning, hot water, and running appliances and office equipment—accounts for nearly 10% of greenhouse gas emissions in the province. Buildings have long life spans—longer than those of power plants, cars, and appliances. The consequences of inefficient buildings can last generations, so we have some important choices to make today about how we build and maintain them.

In B.C., the green buildings sector provides more than 23,000 jobs. B.C. is a North American hub of Passive House construction—an international standard for energy efficiency.

Increased investments in green buildings can meet multiple government objectives: economic recovery, housing supply and affordability, climate mitigation, climate adaptation, and public health. Renovations and retrofits in particular are effective tools for economic recovery because they create a high number of jobs per dollar invested, employ a range of low-skill and high-skilled labour, use mostly local labour and materials, and create employment where people live.

CleanBC sets the province on the course that all new construction will be net-zero ready by 2032, commits to having energy standards for existing building upgrades by 2024, and provides incentives for retrofitting homes and buildings. These are areas where enhanced measures and targeted stimulus should be taken.

1. Accelerate Construction of Climate-Friendly Units of Affordable Housing

Land values, labour costs, and interest rates have all decreased recently, which provides an ideal context to accelerate the pace toward reaching 114,000 new units set as a target in B.C.'s [30-point plan](#) for Housing Affordability. This would align with the Federation of Canadian Municipalities' recommendation to the federal government to expedite the remaining investments under the National Housing Strategy.

To align with CleanBC, these new housing developments should be energy efficient with zero emissions heating and hot water systems, and constructed using low carbon materials and practices such as wood and modular construction. They should also include climate adaptation measures, such as overheating protection and wildfire-proofing. A number of municipalities have also signaled their willingness to consider fast-tracking projects that offer high community amenity and/or high affordability, which could expedite a wave of construction for affordable and climate-friendly housing.

2. Increase Energy Upgrades in Housing

There is an opportunity to develop a large scale building retrofit program which would put many small and medium businesses, and construction and trades people back to work, as well as making energy bills more affordable for families and businesses. **The incentives available for single family homes under Better Homes BC should be increased and adjusted** to encourage deeper retrofits at each home, prioritizing fuel switching, efficiency, and climate adaptation. Additional top-up should be provided to low and medium income households to ensure equity.

Helping existing affordable housing to become more energy efficient and transition to renewable energy for space and water heating is an excellent opportunity to support the province's CleanBC, housing, and affordability objectives. This **can be accomplished by increasing the incentives—and the total amount of funds—available through the Better Buildings BC programs for non-profits** so that they are sufficient to cover the cost of improving energy efficiency, transitioning off of fossil fuels (particularly if the site requires electrical service upgrades), and integrating regionally-relevant climate adaptation measures, such as fire-resistant roofs or flood protection. Grants to convert baseboard-heated buildings to high efficiency heat pumps would increase the demand for heat pumps, reduce energy poverty, and provide cooling to protect tenants' health during heat waves.

Further, much of B.C.'s non-profit housing is not eligible for Capital Renewal Funding, including housing societies outside of operating agreements and co-ops. They, like market rental owners, must borrow to cover the base cost of upgrades. Providing a separate granting stream for affordable housing owners that are not eligible for Capital Renewal Funding to help pay for basic renovation costs would increase uptake of the grants designed to achieve significant cuts in carbon pollution. Property Assessed Clean Energy Financing for residential and commercial buildings is another tool that the government should enable that would spur a growth in retrofits throughout the province.

3. Transitioning Public Sector Buildings off of Fossil Fuels

There is a long list of public sector buildings including schools, community centres, and recreational facilities that have been identified for seismic and/or energy upgrades. Increasing funding to the Carbon Neutral Capital Program and CleanBC Communities Fund would help to advance the timeline on these retrofits, many of which have completed design work and are seeking funding. Further, support should be targeted for the public sector buildings pursuing more significant energy and carbon performance improvements and incorporating seismic upgrades at the same time if appropriate.

4. Invest in Workforce and Supply Chain Development

There is a lack of capacity in B.C. for designers and contractors with the skills needed to build high-performance new buildings and undertake significant retrofits (specifically building envelope improvements and heat pump installations). New financial support for upgrading these skills should be an important component of B.C.'s recovery plan, and can be informed by the findings of the CleanBC Workforce Readiness work. Existing programs can be quickly deployed through training institutions, professional bodies, and trade unions. The province should work with Indigenous communities on Indigenous-focussed training support, and should leverage existing retrofit training programs and collaborate with industry associations to support delivery of training across the province. Contractors must be incentivized to become Program Registered Contractors on Better Buildings BC website. Local manufacturers and suppliers needed to produce or source high performance building components such as windows, doors, heat pumps, and mass timber need to be supported and attracted to B.C.

Industry

Along with actions to reduce GHG emissions, CleanBC provides an effective blueprint to grow our economy. A strong economy means thriving industry, a well-educated and diverse workforce, good jobs and sustainable growth. For the past decade and beyond, B.C. industries have worked to reduce their carbon footprint, and have become models internationally for how to lower emissions and contribute to the economy through good jobs, healthy government revenues and benefits to Indigenous peoples. A key goal is to ensure that B.C.'s leadership on climate change does not materially impair B.C.'s business competitiveness. Competitive industries are able to continue jobs, revenues and other benefits, and can attract the investment needed to further reduce their emissions. It would be unhelpful to the global fight against climate change if low-carbon intensity B.C. operations are shut down, with the same production activities replaced elsewhere with higher GHG emissions

The following ideas, building on CleanBC, identify enhanced measures and targeted stimulus that should be taken to position B.C., during economic recovery, as a destination for continued investment to meet the growing global demand for low-carbon products, services, and pollution-reducing technologies.

1. SME Technology Adoption for Clean Outcomes

The province should introduce programs to help B.C.'s non-tech small and medium-sized enterprises (SMEs) to adopt smart technologies to measure and reduce their GHG reductions. Such programs would provide educational materials, case studies, guidance on best practices and mentorship to increase awareness of the idea that 'clean is the side effect of smart'. Programs would also provide green audits and mechanisms to help lower the

barriers of implementation of smart solutions to focus on reducing the 30% of GHG emissions currently attributed to SMEs. By enabling homegrown B.C. technology SMEs to validate the GHG reductions their solutions deliver, the program would also provide important market validation, allowing them to build this into their value propositions and growth plans.

2. Waste Utilization Incentive Program

The update to the BC Bioenergy Strategy presents an opportunity across several sectors to accelerate the use of waste to generate energy or biofuels. In forestry, an immediate opportunity would be to stimulate the collection, transportation, and processing of harvest residuals to create biofuels and renewable gas—this should also include the application of demonstration type technologies that are currently cost challenged. This concept could be executed by providing direct funding for specific projects or alternatively, these activities could be incentivized by creating a new biomass tax credit that applies to those that utilize agricultural, municipal or forest waste. Existing agencies, such as Forest Enhancement Society of BC, could be engaged to help deliver the program.

3. Clean Industry Recovery Fund as Part of the Canadian International Innovation Program

The CleanBC Industry Fund (CIF) criteria should be adjusted to create a separate recovery fund to stimulate investment in emissions reduction projects which focus on job creation, brownfield and greenfield projects, and new technology demonstration projects (e.g. electric frac spreads for natural gas drilling). This would be a separate fund to the CleanBC Industry Incentive Program and CIF that is currently in progress, and available to applicants as quickly as possible with funding large enough to support “shovel ready” projects not now covered by the CIF. As companies face COVID related capital spending cuts, this additional funding would allow companies to continue with more discretionary spend on emissions reductions projects, allocate jobs to process improvements and application of new technology, and drive investment in potentially larger emissions reductions projects (e.g. Carbon Capture and Storage early work, switching out of gas turbines at facilities, changing fleet vehicles to EVs, and site specific process improvements). It would also allow companies to re-engage contractors, including Indigenous partnerships, on projects that may have been recently deferred or cancelled.

This recovery program would be available to those who currently qualify under CIF but would be administered through a separate process that would be easily accessible to potential applicants, have clear requirements and application process, and have a speedy and clear decision-making process. Verification would occur as per the CIF program design. This time-limited recovery program should run for approximately one year and could be extended subject to the readiness of emissions reduction projects and the ongoing impacts of the pandemic.

4. Industrial Electrification Infrastructure Recovery Program

Accelerate shovel ready industry electrification projects. The desired outcome would be to create jobs on the front end of project execution, while laying the foundation for electrification project development as B.C. emerges from this crisis. While larger infrastructure projects can have a long lead time for full development, surveying and studying routes, and environmental assessment work would be possible in the short term. Projects within existing operations, such as retrofitting or expanding capacity, should be executed more expediently. This acceleration could be enabled by the creation of a government, multi-stakeholder and Indigenous temporary project team. There is an opportunity to expand this collaboration if early indications of success.

5. Indigenous Clean Energy Initiative and Indigenous Community Owned Utilities

The Indigenous Clean Energy Initiative provides early support to develop Indigenous communities' capacity and readiness to advance local or regional clean energy projects. Indigenous communities are benefiting from the provincial investment into clean energy development through the Indigenous Clean Energy Initiative. An augmented focus on Indigenous clean energy and exploration of new business models can be a catalyst for economic development across the Province.

Transportation

CleanBC includes a number of critical transportation-related regulations—such as the Zero Emission Vehicle Standard and Low Carbon Fuel Standard (LCFS)—and programs that support cleaner fuels, cleaner vehicles, and measures that get people out of their cars and onto public transit, and walking and cycling. However, transportation-related emissions in B.C. account for nearly 38% of provincial pollution in 2018, and increased by more than a million tonnes between 2017 and 2018.

Consequently, accelerating and/or enhancing CleanBC policies and programs to deliver action more quickly represents an important opportunity to turn this trend around, and can begin making progress towards the 6 million tonnes of pollution reduction anticipated from the transportation sector by 2030. B.C.'s clean transportation sector, which includes a diversity of jobs ranging from bus drivers to electricians who install EV charging to software developers, employs more than 20,000 British Columbians, and is primed for further growth..

1. Creating Safe Active Transportation Opportunities

With vehicle trips down significantly because of COVID-19, there's an important near-term opportunity to convert some of the available road space to make it safer for physically-distant walking and cycling. Road closures in communities such as Victoria, Vancouver and New Westminster offer local examples, and cities such as Portland, Oakland, Paris, Milan and

Auckland have already articulated ambitious plans to place a higher priority on walking and cycling through a variety of approaches as part of their recovery plans. As is being done in New Zealand, the B.C. government should provide financial support for these road space conversion projects to encourage local governments to act on them quickly. B.C. has developed a strong active transportation strategy and we recommend that there be full funding to implement B.C.'s Active Transportation Strategy quickly and at scale.

Similar approaches can create more space for shops and restaurants, which will make it easier for them to re-open their businesses with sufficient space for staff and patrons to follow physical distancing protocols. This will be especially important if those protocols remain in place in some form for an extended period until a vaccine or treatment is discovered.

2. Accelerating Electric Vehicle Charging Infrastructure

The demand for EV charging continues to grow as households and businesses increasingly make the switch to electric vehicles. The electrified transportation sector in B.C. today employs thousands of workers, from electrical contractors and engineers, to EV charging distribution to sales and service professionals. Investment in public charging infrastructure will help to meet the growing demand for EVs and help make them an option for people without access to home-charging. As part of its COVID-19 recovery plans, the province should accelerate and increase planned investments in public fast charging and Level 2 charging throughout the province in partnership with the federal government, utilities, local governments and businesses. It's also noteworthy that, if managed effectively, the additional electrical load from EV charging has the potential to help lower electricity rates for all B.C. households and businesses.

An ongoing challenge with electric vehicles is that many British Columbians don't yet have the means of affording one. Continuing implementation of the Zero Emissions Vehicle Act will help bring in more lower cost and used EVs into B.C. To further improve the availability of EVs for all British Columbians, the province's incentive program should be adjusted to be income-tested as California has done, and the province should apply a surcharge to gas and diesel vehicles (a feebate) at price points where there is already excellent availability of electric vehicles, creating a revenue stream to support the sustained delivery of purchase incentives, which remain a necessary complement to the ZEV Standard.

3. Increasing Clean Fuel Supply

B.C. is home to two producers of liquid biofuels. Consolidated Biofuels (Delta) processes used cooking-oil into biodiesel, and Parkland Refinery (Burnaby) co-processes animal fats to produce renewable gasoline and renewable diesel. Both facilities source their fuel feedstocks from within B.C. The government should assess whether there are opportunities to support increased utilization or expansion of this production capacity, and support for Indigenous communities' economic development to be a part of clean fuel production opportunities.

In addition to sustained support for hydrogen refueling infrastructure and incentives for ZEV specialty vehicles, including hydrogen, the government should consider targeted support for made-in-B.C. production of zero carbon hydrogen (including green hydrogen produced using electricity, or blue hydrogen produced from natural gas and capturing and storing carbon pollution). Increased use of hydrogen as a clean fuel enables compliance with the Low Carbon Fuel Standard and serves to reduce emissions from freight, which have been increasing. In addition to its use in the transportation system, it can be blended into B.C.'s natural gas distribution system as a source of renewable natural gas (RNG), to help achieve the province's 2030 RNG target.

It should also be noted that EV charging infrastructure delivers clean fuel that contributes toward compliance with the Low Carbon Fuel Standard, hence accelerated buildout of this infrastructure can support the objectives of the standard while reducing compliance costs.

4. Electrifying Public Transit

The B.C. government, in coordination with the federal government, should support the efforts of both BC Transit and TransLink to build infrastructure to increasingly electrify their bus fleets, replacing end-of-life diesel buses with electric buses. Supporting this transition requires additional financial support—through loans or grants—for significant new and upgraded infrastructure, both to ensure access to sufficient electricity and to design and adapt depots to accommodate charging.