PEMBINA institute

January 25, 2021

Neil Dobson
Executive Director, CleanBC Implementation
Climate Action Secretariat
Ministry of Environment and Climate Change Strategy
(via CleanBC@gov.bc.ca)

Dear Mr. Dobson:

Re: Setting Sectoral Targets for Emissions Reductions

The Pembina Institute is pleased to submit feedback with respect to the government's consultation on sectoral targets design elements, as requested in December 2020, via the *Setting Sectoral Targets for Emissions Reductions* discussion paper.

A requirement in the Climate Change Accountability Act, the establishment of sectoral targets is necessary to identify areas and levels of emissions reductions as part of a robust accountability mechanism to achieve climate targets. Because B.C. doesn't have an enforcement mechanism to ensure targets are reached, the province will need to put heavy emphasis on establishment of strong policies to drive action toward reductions, as well as transparency and accountability for results as they are achieved or missed. We encourage the B.C. government to continue to engage with stakeholders on the process of setting targets and policies for reaching them.

In response to the discussion paper's questions, we have elected to comment on several principles that we believe are imperative for the successful design and implementation of sectoral targets to meet CleanBC and longer-term climate targets.

The Pembina Institute acknowledges that sectoral targets must be consistent with B.C.'s overall 2030 target (40% below 2007 levels) and will be designed to support B.C.'s commitments to an 80% reduction by 2050 and net-zero by 2050. These targets should be based on the Provincial Greenhouse Gas Emissions Inventory and incorporate previous commitments to CleanBC policies and programs. They should also be informed by broad engagement with all stakeholders, including input from and consultations with Indigenous Peoples in accordance with the Declaration on the Rights of Indigenous Peoples Act and in the spirt of reconciliation.

#1 Questions on Principles

a) Which principle(s) are most important to you in designing sectoral targets? Please explain.

All the principles proposed by the government are important considerations in the design of sectoral targets. However, we believe that **no single principle should override the importance of achieving the targets nor be a means to delay action on emission reductions.** The following principles deserve a closer attention:

Feasibility: Targets should be set with the expectation that they can be met within the time frame of each target. Importantly, the design of these targets should rely on the application of known technologies and emissions reductions methods and costs, and not depend on or delay action due to technologies that may emerge and become commercially available or more cost-effective in the future.

Transparency and credibility: This principle builds mutual trust and confidence among all parties and eliminates the danger of different interpretations of the mandates and requirements. For this to be effective, government must continue to supply accurate and easily accessible information, share the latest data on emissions and policies under discussion, engage in robust consultations, and allow for input from stakeholders on a regular basis.

Fairness: All sectors should be expected to decarbonize over the next few decades. We expect the government to assign sectoral targets that are sound, reasonable, and achievable by each sector, and use the same criteria and weightings to assess each sector. No sector should be exempt from reducing emissions. Fairness should be defined for each sector by considering the availability of and ability to apply existing best-in-class low-carbon technologies and services, and fuel switching, as well as historical and current greenhouse gas (GHG) emissions, the share of total emissions in the economy, and emissions intensity (GHG emissions per unit of economic output).

Sectors with high emissions and access to low-carbon tech should be responsible for a greater amount of emissions reductions.

Cost effectiveness: The following points should be considered in assessing the cost effectiveness of targets:

- Targets should be designed with the expectation that known solutions for high-emitting sectors are applied early in the target timeline, rather than closer to 2050.
- Sector design should include non-monetary costs. Environmental and social impacts, such as the social cost of carbon, should be assessed and included in cost-effectiveness and policy development. Government should set forward-looking regulatory policies

that incentivize early, steep, and sustained reductions through the development and uptake of best-in-class solutions that deliver the greatest financial, social, and environmental benefits in the long term.

Flexibility: Sectoral targets should ensure that flexibility is applied to design, methods, and technologies to reduce emissions, including allowing for a range rather than an absolute percentage. However, the range should be narrow, so that reductions are not materially out of line with reduction targets. Sectoral targets should not be flexible on the total amount of economy-wide emissions reductions required; that is, sectoral reductions must add up to the overall target.

b) Are there other principles that should be considered in establishing targets?

In addition to the principles listed in the discussion paper, we also suggest the following principles be considered in the design of the targets:

Long-term vision: Sectoral targets should send clear and consistent signals from government by laying out long-term expectations and requirements for emissions reductions as B.C. strives to meet its emissions targets and net-zero goal.

Permanency of emissions reduction: Sectoral targets must include a mechanism such as insurance to ensure that emissions reductions are permanent or, if sourced from projects subject to potential reversal, have guarantees to ensure that any losses are compensated for. For instance, it should be ensured that, in case of an off-grid solar project where the panels fail to supply power, a backup diesel generator is not the substitute, resulting in more emissions than would have occurred without the project. Offset programs should also have robust protocols to ensure the environmental integrity of the offset.

Consistency and comparability of the methodologies: The sectoral target must ensure the same methodologies are used for the base and subsequent years and consistent data sets are used to estimate emissions or removals from sources or sinks. Also, estimates of emissions and removals reported by parties should be comparable among parties, using the same format and methodology.

Aggregable: Sectoral goals should add up to the overall economy-wide emissions reduction target.

Enforceability: Currently, there is no enforcement mechanism in place to ensure compliance with targets at the sectoral level. In other words, sectors are not held accountable, and there is no consequence for not meeting the targets. With only the government being accountable, it may be hard to envision aggressive emissions reduction. More discussion is needed on how

policy and regulatory levers (e.g. taxation, incentives) may be used to encourage companies and industries to meet reduction targets in the allotted timeframe.

Clear guidance for utilities: Government should ensure integration with the long-term planning processes of utilities and that sectoral targets are defined with enough specificity to guide utilities' long-term resource planning. The government should also require utilities to show how their long-term resource plans are compatible with sectoral targets and direct the BC Utilities Commission to review these results.

#2 Questions on Target Metrics

a) Do you agree with a percentage-based approach? Why or why not?

A percentage-based approach is more likely to have a positive effect on reducing absolute emissions compared to intensity or program-based targets. Percentage-based reductions ensure that a proportional reduction in comparison to the baseline occurs at regular intervals.

b) Should any sectors have a supplementary metric to complement percentage of emission reductions, e.g. emissions intensity? If so, what additional metric should be used to measure specific sectoral targets?

Supplementary metrics such as emissions intensity (GHG emissions per unit of economic output) should be in place, in addition to percentage targets, in hard-to-abate sectors (where energy efficiency improvement and technology switching are harder to achieve) to push the sector toward adopting best-in-class emissions reduction solutions. The intensity targets help ensure climate progress in hard-to-abate sectors — even in the face of overall economic slow-downs, where output and emissions may decline and mask inefficiencies.

It should be noted that, regardless of the supplementary metrics at the sectoral level, the effectiveness of the underlying policies and programs should be measured and reported on an annual basis.

#3 Question on Sector Groupings

a) Are you in favour of having a smaller (3 or 4) or larger (8) number of sectors or something different? Why?

We support disaggregation beyond three or four sectors — and having a larger number of sectors — to ensure the transparency, accountability, and fairness of sectoral targets. We believe the "Transportation," "Industry," and "Buildings and communities" sectors should be disaggregated further, as discussed below:

- "Heavy duty vehicles" and "Passenger vehicles" are among the main contributors to the emissions in B.C.; the three-year trend shows that their emissions grew by 18% and 12%, respectively. These transportation sectors should be treated separately in terms of emissions reporting and control, as the factors contributing to utilization pattern, technology, and economics as well as the types of suitable interventions and policies (e.g. vehicle taxation, fuel economy standards, promotion of modal shift, etc.) may be different.
- "Oil and gas" must be separated from the "Industry" sector, as upstream oil and gas activities are the largest source of emissions in the province, with unique challenges in terms of electrification, fugitive emissions, export markets, etc. Upstream emissions monitoring in the oil and gas sector becomes increasingly important in the face of developing fossil-based fuels such as LNG and (possibly) blue hydrogen.
- We suggest that emissions from "Commercial, institutional, and residential buildings" be reported together and disaggregated from emissions from "waste and afforestation/deforestation (land use change)" to provide an accurate and intuitive picture of the buildings sector.

c) How do you think this sector grouping could affect household affordability and/or business competitiveness?

Generally, targets are a tool to monitor progress, so they do not add a cost to individuals and companies — rather, the design of programs and policies to achieve the targets must consider the financial impact to households and businesses. It is not clear, with the information and data available, how groupings may affect household affordability. However, it should be noted that having too few sectors may affect transparency on the role of each subsector in reducing emissions. Each subsector may have different abatement costs which could affect competitiveness, with some businesses gaining advantages for lowering emissions early.

#4 Questions on Other Design Features

a) What tools (e.g., offsets, future technological improvement, purchased credits, verification mechanisms) for achieving the target over and above direct emission reductions would you support and why? Are there any tools you would not support? Why not? Are there other tools that we should be considering?

Direct emissions reductions in B.C. are the key to meeting B.C. targets. Direct emissions reduction supports the long-term economic competitiveness of the province through the development of low-carbon and efficient industries and new job opportunities. Offsets and

emissions credits should not be prioritized for meeting the GHG budget and should not be used as a substitute when direct mitigation is technologically feasible — for example, through technology changes, fuel switching, or improvements to processes.

However, there may be instances where credits and offsets will be contemplated. To ensure the environmental integrity of offsets and purchased credits, where required, the following principles should be considered for the design, verification, and tracking of credits:

Raises ambition: Emissions credits must only be used be for reductions that go above and beyond the ambition of current emissions targets — not used as a pathway to achieve current targets.

Achieves additional emissions reductions: It must be demonstrable that the offset achieves emissions reductions that would not otherwise have occurred in the absence of the offset, and that the emissions reduced by the offset have not been displaced or leaked to another location.

Achieves verifiable emissions reductions: It must be verifiable that the offset achieves emissions reductions against a credibly determined and agreed-upon benchmark and can be monitored and reported on over time under clear monitoring guidelines.

Protects human rights and promotes the health and wellbeing of all communities: Offsets must respect the rights of all communities and Indigenous Peoples by avoiding undue harm, thoroughly assessing risks, supporting reconciliation, and including safeguards for human rights protection.

c) Which characteristic(s) of a sector should influence assigning a more stringent target? Why?

- Lower abatement cost
- High emissions
- Growing emissions
- Available abatement options
- Lack of competitiveness or affordability concerns
- Ease of implementation
- Other (please describe)

We support all the above-mentioned characteristics. We believe that sectors with both high and growing emissions should be subject to more stringent targets, even though there may be short-term affordability and ease of implementation concerns. The design of policies and programs should support efficiency improvement, adopting state-of-the-art technologies, and demand management as well as the adoption of low-carbon and renewable fuels to help overcome the short-term abatement concerns for those sectors.

We suggest the gas sector be subjected to a stringent target as the emerging industries in this sector (e.g. LNG and hydrogen derived from natural gas) are still developing and have access to best-in-class technologies and processes that incumbent industries may not yet have in place. These emerging industries will supply products that are expected to be less carbon-intensive energy solutions and thus should adopt best-in-class technologies from inception.

d) Which characteristic(s) of a sector should influence assigning a less stringent target?

- Higher abatement costs
- Proven impacts on competitiveness or affordability
- Higher likelihood of carbon leakage (activity relocating other jurisdictions)
- Past emissions abatement efforts
- High employment sector or high job growth potential
- Abatement/ policy implementation challenges
- Other

We believe less stringent targets are not a substitute for strong policies and programs that address carbon leakage and competitiveness. Each target should be designed in a manner that encourages innovation and reductions and does not enable laggards.

Sector design should send the signal that all sectors must meet their emissions reductions obligations within a specified timeframe. We believe that sectors with high employment or high job growth potential should not be assigned less stringent targets, as clean jobs providing long-term, stable employment are projected to grow significantly between now and 2050.

Conclusion

We appreciate the opportunity to provide comments on the discussion paper in anticipation of the final design of B.C.'s sectoral targets. We believe that setting these sectoral targets is a crucial step towards a transparent, effective, and timely plan for climate action. We look forward to supporting the provincial government through further consultation and review as we move forward with the final design proposals to be included as part of the Climate Change Accountability Act.

In summary

Design principles: We believe that the principles outlined by the government are of high importance. We suggest additional principles, such as long-term vision, consistency of the methodologies, and enforceability, which we believe merit inclusion.

Target metrics: We support percentage-based targets, as they have a better chance of reducing emissions across different sectors.

Sector grouping: We support disaggregation beyond three sectors. We believe the "Transportation," "Industry," and "Buildings and Communities" sectors should be further divided to ensure the transparency of emissions reporting and control.

Other design features: We believe that offsets and emissions credits should not be prioritized for meeting the GHG budget and should not be used to compensate for missed opportunities.

Stringency of sectoral targets: We believe that sectors with high and growing emissions should be subject to more stringent targets, even though there may be short-term affordability and ease of implementation concerns. We also believe that a less stringent target should not result in less effort and investment to reduce emissions from any sector. We also suggest that the gas sector be subjected to a stringent target as the emerging industries in this sector (e.g. LNG and blue hydrogen) have access to best-in-class technologies.

Yours sincerely,

Karen Tam Wu
B.C. director
Pembina Institute