Pembina Institute's comments on proposed Clean Growth Program for Industry

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Summary

Addressing industry competitiveness concerns around carbon pricing will help to prevent emissions leakage, address a barrier to further carbon price increases, and ensure a strong economy for British Columbia. However, any competitiveness support for industry must be carefully designed to address a number of principles, including maintaining the incentive to reduce pollution.

The Pembina Institute generally supports the proposed Clean Growth Program for Industry, which returns 100% of incremental carbon tax payments above $30/tonne CO_2e to industry. This program meets most of our principles, including keeping the incentive to reduce pollution. However, we also encourage the government to consider our recommendations outlined below to ensure the policy is simple, temporary and transparent.

It's important to acknowledge that the proposed Clean Growth Program for Industry will not achieve emissions reductions in the industrial sector in line with B.C.'s legislated 2030 and 2050 targets or the proposed industry sectoral target for 2030. We encourage the government to design a comprehensive policy and investment program that achieves these targets, and to implement this in the upcoming climate strategy and energy roadmap.

Introduction

The Pembina Institute supports taking strong action to reduce carbon pollution across the economy, including in the industrial sector. Industry currently accounts for 25.3 million tonnes CO_2e or 41% of B.C.'s total emissions[i], making it the largest emitting sector. Strong action is needed in this key sector to ensure that B.C. has a chance to achieve its legislated 2030 and 2050 climate targets. To help hold the sector accountable to act, we support establishing a sectoral emissions target, and we support the target proposed by the Clean Growth and Climate Solutions Advisory Council of a 30% reduction by 2030 compared to 2007.[ii] It's also important to note that any new large-scale and fossil-fuel-powered industrial development — such as a significant LNG industry — will place an extra burden on other industrial operators, and indeed all British Columbians, to reduce emissions to help meet our climate targets.

A limited portion of the industrial sector faces the specific challenge of being both emissions-intensive and trade-exposed (EITE). In B.C., this part of the economy accounts for 2% of total GDP but 22% of greenhouse gas emissions.[iii] Such industries could face potential competitiveness challenges if climate policy in B.C. is significantly more stringent than in competing jurisdictions, as operations or investments could move to less well-regulated jurisdictions. This "emissions leakage" could lead to loss of economic opportunity in British Columbia. Although evaluation of existing carbon pricing regulations has shown that the risk of emissions leakage is in practice much less than projected[iv,v,vi], these risks could increase as the carbon price increases relative to other jurisdictions.

While these competitiveness concerns are expected to disappear over the long term as the world embraces more uniform action on climate change (carbon pricing is already becoming mainstream around the world), this does offer a barrier to short-term leadership on climate action. This is true for some portion of B.C.'s trade-exposed economy. It is for these reasons that the Pembina Institute supports interim measures to address competitiveness concerns from climate action in the industrial sector to help offset the extra costs of strengthening B.C.'s carbon tax.

Principles for EITE treatment

While addressing EITE competitiveness concerns makes sense as B.C. waits for climate policy stringency in competing jurisdictions to catch up, policy must be carefully designed to ensure it does not undermine the overall goal of carbon pricing to incentivize reductions in carbon pollution. The Pembina Institute has identified six core principles that any effective EITE competitiveness measure must follow[vii,viii,ix] and have based our feedback on the proposed Clean Growth Program for Industry[x] on the following principles:

1. *Maintain the incentive to reduce carbon pollution:* Any measures taken to address competitiveness concerns with respect to carbon pricing for emissions-intensive, trade-exposed sectors should maintain the incentive to reduce pollution.
2. *Be targeted:* Mitigation measures should only apply to EITE sectors that may have material competitiveness and/or profit impacts due to carbon pricing policy.
3. *Be transparent:* Any support for EITE sectors should be justified by data and analysis.
4. *Be consistent:* The broad framework for assessing and addressing EITE competitiveness issues should be consistent across sectors and firms.
5. *Be temporary:* Any support should be transitional in nature and be phased out when carbon pricing and/or regulatory equivalency with other jurisdictions is achieved.
6. *Be simple:* Any EITE mechanism should be simple to implement, administer and comply with.

The proposed Clean Growth Program for Industry could achieve most of these principles. Importantly, the program financially rewards better environmental performance (through the Industrial Incentive) and helps fund projects that reduce pollution (through the Clean Industry Fund), satisfying the principle to maintain the incentive to reduce pollution. The program also encourages new investment by favouring new, more efficient operations, while keeping 100% of the incremental carbon tax revenue above $30/t CO_2e in the industrial sector, effectively addressing the competitiveness concerns of a higher carbon tax. The Clean Growth Program for Industry thus appears to achieve both the environmental and economic priorities of an effective carbon pricing and industry competitiveness allocation program.

However, with the currently available details it is not yet clear whether the policy will comply with all principles. We have concerns specifically about its accordance with principle 6 (to be simple to administer, implement and comply with); principle 5 (to be temporary and transitional in nature); and principle 3 (to be transparent). The efficacy of an EITE system in maintaining industry competitiveness while also encouraging better environmental performance comes down to the details of the policy. So far the intentions paper outlines few such details.

Industrial Incentive

Overall, the Pembina Institute supports the Industrial Incentive, as it is designed to encourage better environmental performance and, being pro-rated, gives the greatest incentive to improve environmental performance to poorer performing facilities — which presumably have more options to reduce pollution).

We support basing the Industry Incentive on current facility output. This follows best policy design principles and tends to encourage new investment, as new projects tend to be more greenhouse gas efficient than existing operations.

Additionally, we support returning any money not paid back through the Industrial Incentive into the Clean Industry Fund, as this will help fund projects in the industrial sector to reduce emissions and make the sector more competitive in the future low carbon economy, while keeping 100% of incremental carbon tax revenue in the industrial sector.

Action 1: Clarify and simplify pro-rated incentive

As currently outlined in the intention paper, the design of the pro-rated incentive between the performance and eligibility benchmarks is unclear. The pro-rated incentive could be more challenging to implement than most EITE policies, which have a single emissions benchmark on which emissions are calculated, as this design requires determining two different benchmarks. The performance benchmark is to be set as the best performing facility globally and indicates the level at which an operator receives all the incremental carbon tax above $30/t

CO_2e back, while the eligibility benchmark indicates the level of performance at which an operator will be eligible for the pro-rated incentive. In addition, the proposed policy will also require a formula or another classification system to determine how the pro-rated incentive is calculated. Together, these extra policy complexities could challenge the principle to be easy to implement, comply with and enforce.

Additionally, the presence of a yet-to-be-defined eligibility benchmark and lack of detail on how the pro-rated incentive is to be structured challenges the principle to be transparent. We encourage the provincial government to structure the Clean Growth Program for Industry so that material dollars are made available to the Clean Industry Fund. This is a key opportunity to fund strategic infrastructure and critical research to help B.C. industries transition to a cleaner energy future. The size and effectiveness of this Fund depends on how the pro-rated incentive is structured; the Fund could be maximized by not making the eligibility benchmark in the Industrial Incentive overly accommodative, so that more money is directed into the Fund rather than the Industrial Incentive. Even with a less accommodative Industrial Incentive, 100% of incremental carbon tax revenue will be returned to the industrial sector via a more effective Clean Industry Fund.

A stronger Clean Industry Fund will have two main benefits. First, more money will be made available for strategic investments to reduce carbon pollution from the sector and therefore make the sector more resilient in the low-carbon economy, while also helping B.C. meet its climate targets. Second, a larger Clean Industry Fund will be better positioned to tap into matching funds for key projects, and may actually increase the money available for the overall industrial sector while further increasing investments in strategic emission reduction projects.

It is key that these details are clarified as the environmental incentive and size of the Clean Industry Fund, and therefore the effectiveness of the policy, depend on these details.

Recommendations

- Maintain the overall pro-rated incentive structure, but focus on maximizing contributions to the Clean Industry Fund and making the policy as easy to implement, comply with and enforce as possible.
- Ensure the Industrial Incentive is not needlessly accommodative by setting the eligibility benchmark too high, as this will limit investment into the Clean Industry Fund.
- Follow a clear and consistent definition across industries of how the eligibility benchmark is defined and apply a common formula or structure to the pro-rated incentive.

Action 2: Adjust benchmarks over time

The intentions paper currently lacks detail about how the performance and eligibility benchmarks will be adjusted over time. Reducing the performance benchmark over time is key

to the effectiveness of this policy, which is meant to be transitional in nature and reduced as climate policy in other jurisdictions catches up with British Columbia. Furthermore, improving the performance benchmark over time will ensure that even facilities that achieve the global best performing level will have an active incentive to further reduce pollution. This could become especially significant for new facilities, which tend to be more greenhouse gas efficient, but should still be incentivized to improve environmental performance under an effective carbon pricing system.

Recommendations

- Set a schedule to decrease the intensity of both the performance and eligibility benchmarks. For example, natural efficiency has been determined to improve at 1-2% per year[xi], and this level could act as a natural reference point for automatic improvements.
- The rate of reduction of the benchmarks should be revisited every five years to determine its adequacy in light of further technology improvements in the industry.

Action 3: Include a trade exposure factor

The government should consider adding another variable to the Industrial Incentive formula that defines a sector's trade exposure and trade risk. This factor could be updated as competing jurisdictions increase or weaken their climate policies relative to B.C., allowing the policy to better address and reflect trade exposure concerns. With this extra factor, the program would be more responsive to the fast-changing aspects of climate policy coverage in competitor jurisdictions, especially as carbon pricing is becoming increasingly common around the world. It would help ensure that industry support is only given as long as B.C.'s climate policy is materially more stringent compared to competing jurisdictions, and ensure that any support is transitional in nature and phased out when carbon pricing and/or regulatory equivalency with other jurisdictions is achieved. This additional factor is common in other carbon pricing and competitiveness allocation policies (such as California's cap-and-trade system) and should be considered best practice.

Recommendation

- Add a trade exposure and trade risk variable to the Industrial Incentive formula to ensure competitiveness support is transitional.

Additional recommendations

We support setting the performance benchmark at the level of the cleanest performing facility in the world for each commodity, as this performance is already achievable using today's technology while also being a transparent and easy to understand benchmark. We encourage the eligibility benchmark to not be overly accommodative.

We also encourage the government to not disaggregate the benchmarks unnecessarily, but to operate under a simple "one product one benchmark" rule. More disaggregation, such as by resource quality, location, or extraction technique, will not aid in focusing future production in the most efficient ways possible. It will mean emissions will be higher and it will make meeting B.C.'s targets more challenging than necessary.

The government currently identifies EITE industries simply as those emitting more than 10,000 tonnes CO_2e per year. In the B.C. context, this is reasonable, as B.C. does not have any emission intensive industries that are domestically focused, such as fossil fuel electricity generation. According to calculations by the Pembina Institute, over 95% of the emissions covered by the current definition in B.C. are both emissions-intensive and trade-exposed. However, we encourage the government to provide a clear definition for EITE sectors (as was done in Alberta with the Carbon Competitiveness Incentive Regulation[xii]) that includes consideration of trade exposure. This provides clarity to all stakeholders, reduces the risk of backsliding for the regulation, and helps to ensure the policy targets only industries with a real risk of emissions leakage.

Clean Industry Fund

The Pembina Institute supports investing money raised by the Clean Growth Program into a Clean Industry Fund to help B.C.'s industry transition to a cleaner energy future.

Rather than focus on one-off projects that achieve only incremental reductions at a single facility, the fund should focus on funding strategic infrastructure developments that can help achieve significant emissions reductions across a sector. As such, we support the government's plan to assess "whether multiple facilities or groups of companies can apply for funding for a single project that could reduce emissions across locations"[xiii] and encourage the government to prioritize these initiatives when reviewing applications to the Clean Industry Fund in order to maximize pollution reduction in the industrial sector. Furthermore, if more money is needed to fund such high impact projects than is raised by the Clean Industry Fund in a single year, we recommend allowing funds to be pooled over several years to ensure that highest impact opportunities are realized (rather than being constrained to what can be funded in any given year, whether high impact or not).

We also suggest the Clean Industry Fund be used to help fund critical research that supports industries in B.C. and beyond in the transition towards a cleaner energy future, with a specific focus on creating opportunities for B.C. clean tech companies across the innovation pipeline. A lack of innovation funding is an acknowledged barrier to finding climate solutions and is a key obstacle that could be addressed by this Fund.[xiv] We suggest the Clean Industry Fund be accompanied by a mechanism that ensures transparency and accountability in how the Fund is

spent in order to ensure funds are used to realize high impact opportunities and to achieve the principle of transparency.

Recommendations

- Allow funds to be pooled across multiple facilities/operators and across multiple years to realize the highest impact.
- Focus on funding critical energy and climate solutions research across the innovation pipeline to help the entire B.C. clean tech industry.
- Include an accountability mechanism to ensure transparency in how the Fund is spent.

Additional industry action required

Beyond the scope of this paper, the Pembina Institute feels compelled to point out that the proposed Clean Growth Program for Industry is not enough to help reduce emissions from industry in line with the sectoral target of a 30% reduction by 2030 supported by the Clean Growth and Climate Solutions Advisory Council. Additional measures to reduce carbon pollution from B.C.'s industrial sector are required. Examples include strong regulations to reduce methane emissions from the oil and gas sector in line with the government's commitment to price fugitive emissions[xv], and working with industry to overcome barriers for upstream producers to utilize more clean electricity rather than emissions-intensive natural gas. These programs are mentioned in the intention paper at a high level, and we encourage government to work swiftly to develop and implement ambitious programs that materially lower carbon pollution from the oil and gas sector.

We encourage the government to implement this sectoral target for industry and to develop a comprehensive policy and investment program that achieves this target. Furthermore, the government should consider how potential large-scale LNG development will impact B.C.'s ability to meets its industry emission target and should develop strategies to ensure our ability to meet emissions targets will not be compromised should large scale LNG development proceed. We look forward to seeing these important policies in the province's climate strategy announced for this fall, and more details in the forthcoming energy roadmap.

Recommendations

- Establish a sectoral target for industry of a 30% reduction below 2007 by 2030.
- Pursue additional reduction opportunities in the industry sector on top of the carbon tax, such as methane reductions and upstream electrification.

Appendix 1: List of recommendations

The Pembina Institute supports implementation of the Clean Growth Program for Industry, but encourages the government to consider the following recommendations to ensure the policy complies with the six core principles (outlined above) that any effective EITE competitiveness measure must follow, especially to be simple, temporary and transparent:

1. Maintain the overall structure of the Industrial Incentive, while focusing on maximizing contributions to the Clean Industry Fund and making the policy as easy to implement, comply with and enforce as possible.
2. Ensure the Clean Industry Fund has sufficient capital by not setting the eligibility benchmark too high and making the Industrial Incentive needlessly accommodative.
3. Follow clear, consistent and easy-to-understand metrics for setting the eligibility benchmarks and calculating the pro-rated incentive.
4. Decrease the intensity of both the performance and eligibility benchmarks over time.
5. Add a trade exposure and trade risk variable to the Industrial Incentive formula.
6. Allow the Clean Industry Fund to be pooled across sectors and years
7. Focus on funding critical energy and climate solutions research across the innovation pipeline to help the entire B.C. clean tech industry.
8. Add an accountability mechanism for how the Clean Industry Fund is spent.
9. Establish a sectoral target for industry of a 30% reduction below 2007 by 2030.
10. Pursue additional emissions reductions in the industry sector, such as methane reductions and upstream electrification in the oil and gas sector.

Endnotes

[i] Government of British Columbia, *Provincial Greenhouse Gas Inventory* (2015). https://www2.gov.bc.ca/gov/content/environment/climate-change/data/provincial-inventory

[ii] Climate Solutions and Clean Growth Advisory Council, *Letter to Minister of Environment* (2018). http://www.pembina.org/reports/cscg-letter-to-minister-heyman-2018.pdf

[iii] Canada's EcoFiscal Commission, *Provincial Carbon Pricing and Competitiveness Pressures* (2015). https://ecofiscal.ca/reports/provincial-carbon-pricing-competitiveness-pressures/

[iv] OECD, *Impacts of Carbon Prices on Indicators of Competitiveness* (2015). http://www.oecd-ilibrary.org/docserver/download/5js37p21grzq.pdf

[v] Antoine Dechezlepretre and Misato Sato*, The impacts of environmental regulations on competitiveness* (2014). http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2014/11/Impacts_of_Environmental_Regulations.pdf

[vi] Martin et al., *The Impact of a Carbon Tax on Manufacturing: Evidence from Microdata* (NBER Working Paper, 2011). http://www.nber.org/papers/w17446.pdf

[vii] Based on previous research by Canada's EcoFiscal Commission and ongoing dialog between the Pembina Institute and industry partners

[viii] *Provincial Carbon Pricing and Competitiveness*.

[ix] Pembina Institute, *Putting a Price on Carbon Pollution Across Canada* (2017). http://www.pembina.org/reports/carbon-pollution-pricing-2017.pdf

[x] B.C. Government, *A Clean Growth Program for Industry Intentions Paper* (2018). https://engage.gov.bc.ca/app/uploads/sites/391/2018/07/MoE-IntentionsPaper-Industry.pdf

[xi] Alberta Government, *Climate Leadership: Report to Minister*, 2015. https://www.alberta.ca/documents/climate/climate-leadership-report-to-minister.pdf

[xii] Alberta Government, *Climate Change and Emissions Management Act, Carbon Competitiveness Incentive Regulation*, 2018. http://www.qp.alberta.ca/1266.cfm?page=2017_255.cfm&leg_type=Regs&isbncln=9780779800193

[xiii] B.C. Government, *A Clean Growth Program for Industry Intentions Paper,* 2018. https://engage.gov.bc.ca/app/uploads/sites/391/2018/07/MoE-IntentionsPaper-Industry.pdf

[xiv] David King .et al., *A Global Apollo Programme to Combat Climate Change* (2015).*l* https://www.greenpolicy360.net/mw/images/Global_Apollo_Programme_Report.pdf

[xv] For more information, see Maximilian Kniewasser, *Limiting Methane Emissions from B.C.'s Gas Sector: A prime opportunity for stronger action on upstream emissions* (Pembina Institute, 2018). http://www.pembina.org/reports/BC-Methane-Emissions-2018.pdf