
B.C. Oil and Gas Emissions Cap Policy Paper

July 2023



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Policy Paper Purpose

This document is meant to guide feedback on B.C.'s approach to set an emissions cap for the oil and gas sector.

In March 2023, the Province announced a [New Energy Action Framework](#) to “ensure oil and gas sector projects fit within B.C.'s climate commitments and create new opportunities for people in clean energy and technology.” The announcement included a commitment to put in place a regulatory greenhouse gas (GHG) emissions cap to ensure B.C. meets its sectoral targets for the oil and gas sector (33%–38% below 2007 levels by 2030).

This policy paper outlines B.C.'s proposed approach to design the B.C. oil and gas emissions cap using the B.C. Output-Based Pricing System (B.C. OBPS) as the core regulatory tool. The paper outlines policy design considerations that are in and out of scope of the oil and gas emissions cap policy, and outlines questions for consideration around how the policy could be designed and regulated.

The oil and gas emissions cap will be designed to reduce and limit the emissions from the sector. The policy design will also consider innovative approaches and additional investments needed in electrification and decarbonization technologies and infrastructure to achieve the emissions target. The emissions cap will not be designed to prescribe or set limits on activities or production in B.C.'s oil and gas sector.

B.C. will complete engagement and consultations with First Nations on the design of the oil and gas cap by the end of 2023. Under the Declaration on the Rights of Indigenous Peoples Act, the Province has a commitment to develop policy and legislation in consultation and cooperation with Indigenous Peoples. Consultation and cooperation with Indigenous Peoples take multiple formats (webinars and meetings with individual First Nations) and will reflect the different protocols in place with a distinctions-based approach.

B.C. will also complete engagement with stakeholders, including industry, labour, environmental organizations, local governments, and other stakeholders by the end of 2023.

The feedback collected through engagement will help strengthen the design of the oil and gas cap and ensure B.C. meets its climate targets while continuing to drive clean economic growth.

B.C.'s Oil and Gas Sector Cap

Emissions from B.C.'s Oil and Gas Sector

In the CleanBC Roadmap to 2030, B.C. set out actions to accelerate reductions across pathways in low carbon energy, cleaner transportation, better buildings and communities, and cleaner industry, including a commitment to implement policies and programs to ensure the oil and gas sector meets its sectoral targets. The sectoral target for the oil and gas sector is 33–38% reduction in emissions from 2007 levels by 2030.

The sectoral targets were established to identify the most feasible and cost-effective way to achieve our province-wide target. The targets were established using B.C.'s [Provincial Inventory of Greenhouse Gas Emissions](#)¹ to set the baseline and targets for all sectors. The sectoral target includes the Provincial Inventory emissions for combustion and fugitive emissions from oil and gas extraction and petroleum refining, Liquefied Natural Gas (LNG), and transportation emissions from pipelines. The sectoral target does not include on-road transportation related to supporting oil and gas activities or emissions resulting from activities not owned or controlled by the regulated facility.

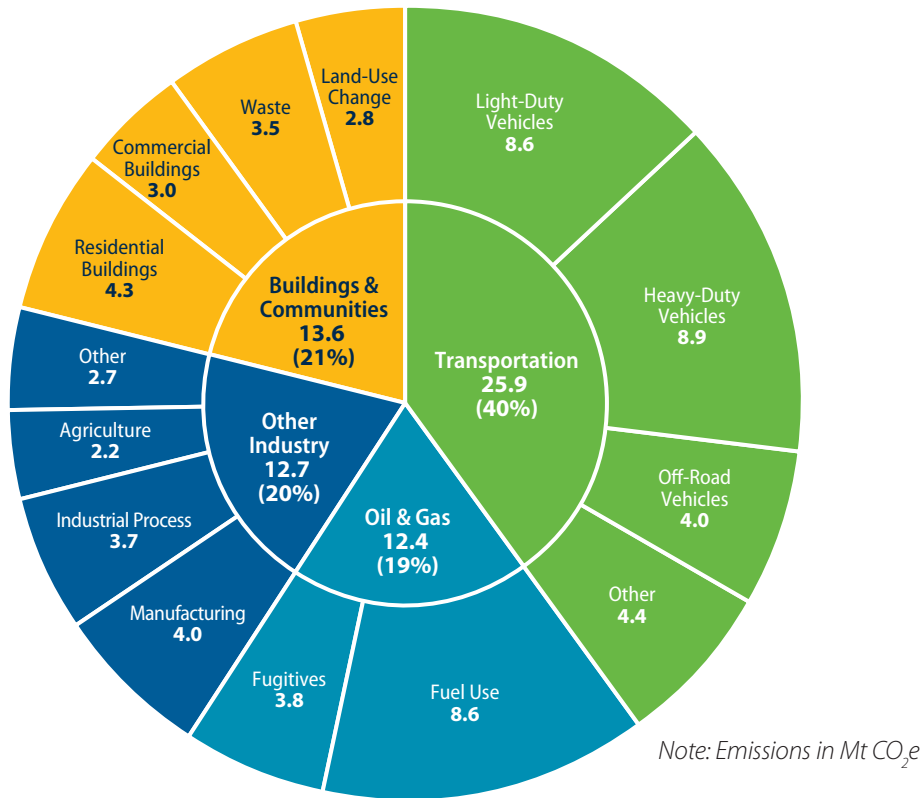
The oil and gas sector is responsible for around 50% of B.C.'s industrial emissions and 20% of B.C.'s total emissions (Chart 1). The GHGs emitted from the sector include carbon dioxide, methane, and nitrous oxide. Carbon dioxide accounts for most emissions from the sector, accounting for 79.7%, followed by methane at 19.8% and nitrous oxide accounts for 0.5%.

¹ Emissions from the oil and gas sector (as per the [Methodology Report for the British Columbia Provincial Inventory of Greenhouse Gas Emissions 1990 – 2020](#)) are included in B.C.'s inventory under the following activities:

- Combustion, venting, flaring, and fugitive emissions from upstream oil and gas production, midstream gathering and processing, and Liquefied Natural Gas (LNG). These activities include, but are not limited to, drilling, hydraulic fracturing, separation, gathering, compression, gas processing, and injection.
- Combustion and fugitive emissions from petroleum refining; and
- Combustion and fugitive emissions from oil & gas pipeline transmission as well as natural gas distribution.

Chart 1: B.C.'s 2020 gross emissions by sector

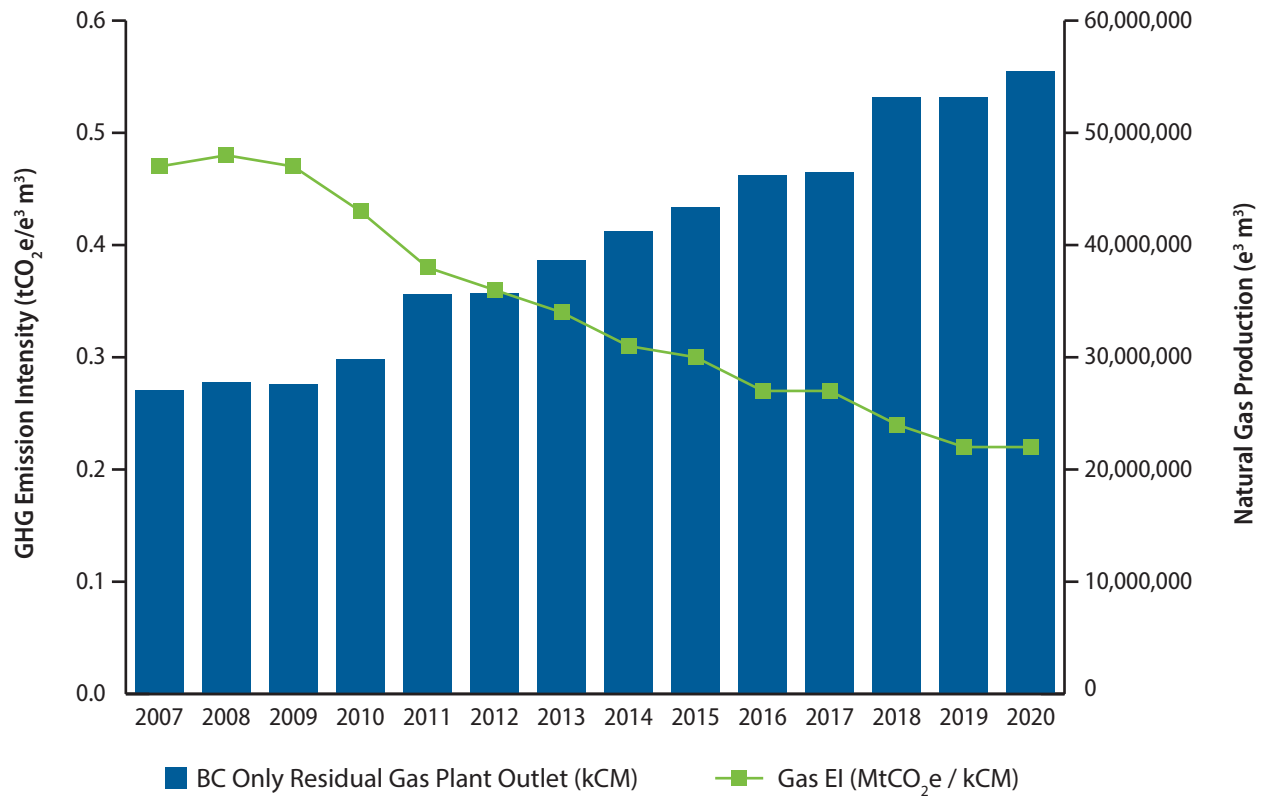
B.C.'s 2020 Gross Emissions by Sector – 64.6 Mt CO₂e



Source: 2020 Provincial Inventory Report

B.C. has made progress to develop a comprehensive system to regulate and reduce GHGs from the oil and gas sector, including through regulation and carbon pricing; these measures are discussed in Section 3. The latest Accountability Report finds total emissions in the oil and gas sector have gone down by 7% since 2007. Over the same period, gas production grew significantly in B.C. – the sector reduced its GHG emission intensity (which refers to emissions per unit of production) by half since 2007 (Chart 2). While these reductions in absolute emissions and emissions intensity of the sector are trending in the right direction, further action is needed to meet the 33–38% reduction target by 2030.

Chart 2: B.C.'s natural gas production vs sectoral greenhouse gas emissions intensity (EI)



Sources: GHG Emissions – Provincial Inventory Report (“Oil and Gas Extraction,” “Oil and Natural Gas,” and “Transportation”); Production – [B.C. Monthly Natural Gas and Oil](#) statistics.

Current Measures to Reduce Emissions in B.C.'s Oil and Gas Sector

Carbon Tax and B.C. Output-Based Pricing System Transition

Starting April 1, 2024, large emitters, such as pulp and paper mills, oil and gas operations, and large mines, will transition to a new carbon pricing model.² The new, made-in-B.C. Output-Based Pricing System (B.C. OBPS), will establish performance-based emissions limits and put a price on operations' emissions that exceed those limits. The Budget Measures Implementation Act, 2023 introduced changes to the Greenhouse Gas Industrial Reporting and Control Act (GGIRCA) to set the legislative framework necessary to implement the B.C. OBPS.

The B.C. OBPS is a carbon pricing model that follows the federal carbon price path, ensures a price incentive for industrial emitters to reduce their GHG emissions through a performance-based system, and provides flexible options, such as B.C. carbon offsets, to meet compliance obligations.

The B.C. OBPS applies to all regulated operations under GGIRCA that emit over 10kt CO₂e (carbon dioxide equivalent emissions). Smaller facilities will have an opportunity to opt in to the B.C. OBPS instead of paying the B.C. carbon tax directly.

Under the B.C. OBPS, an industrial operation's compliance obligation (i.e., requirements to pay or secure compliance credits for their emissions) is based on the emissions intensity of its facilities compared to a performance standard. Instead of paying the tax on fuels that they purchase or use, industrial facilities in the system will be subject to a carbon price on the portion of their emissions that are above a limit, which will be determined based on a product-specific performance standard.

In July, B.C. released the [stringency details](#) under the B.C. OBPS for a 60-day comment period.³ These stringency details and the B.C. OBPS system is summarized in **Appendix 1** for reference.

The B.C. OBPS, the Performance Standard for oil and gas is set at 50% of the average emissions intensity (production-weighted) of that sector.

Performance Standards will become more stringent by 2% annually under the **tightening rate**; the tightening rate is a set rate for all products regulated by the B.C. OBPS, and is a planned, yearly gradual increase to the reduction factor applied to calculate the performance standards. This means the Performance Standard will become more stringent year over year to 2030.

From July to October 2023, the Ministry of Environment and Climate Change Strategy (ENV) will continue engagement on some of the regulatory elements to the B.C. OBPS, including (but not limited to): definition of 'facility', meeting compliance obligations, verification requirements, options for opting into B.C. OBPS for smaller facilities, and potential mitigation measures.

Performance Standard = Reduction Factor * Production Weighted Average Emissions

² Operation of the B.C. OBPS will begin on January 1, 2024; large emitters will transition from the carbon tax to the new carbon pricing system by April 1, 2024.

³ Responses are due by September 6, 2023.

Methane Regulations

B.C.'s methane regulations were introduced in December 2018 through amendments to the Drilling and Production Regulation (DPR) under the Oil and Gas Activities Act (OGAA). The methane regulations came into force on January 1, 2020, and are the primary policy instrument for achieving the Province's 2025 methane emissions reduction target of 45% below 2014 levels.

The provincial methane regulations established requirements to limit levels of fugitive and vented methane in B.C.'s upstream oil and gas sector, which include requirements for leak detection and repair (LDAR), pneumatic devices, compressors, glycol dehydrators, storage tanks and surface casing vents.

The BC Energy Regulator (BCER) completed a regulatory review of methane regulations in 2022 to ensure the efficiency and the effectiveness of the regulations. The review found the Province is on track to meet the 2025 methane emissions target. The latest analysis indicates methane emissions from oil and gas in B.C. are projected to achieve a 52% reduction by the 2025 target date.⁴

The CleanBC Roadmap to 2030 updated methane targets for the oil and gas sector to:

- reduce methane emissions by 75% by 2030, relative to 2014 levels, and
- Reach near-elimination of methane emissions by 2035.

In November 2022, the Government of Canada also proposed a regulatory framework to achieve at least a 75% reduction of oil and gas methane emissions by 2030, relative to 2012 levels.

B.C. is currently working to identify what changes may be required to achieve the 2030 methane target for oil and gas, make progress towards near elimination of methane emissions by 2035, and achieve equivalency with the proposed federal regulations.

The BCER is engaging on the next phase of regulations to reach the 2030 and 2035 methane emissions goals in a second engagement phase ending July 21, 2023. Details of this methane regulation development and engagement are available on [the BCER website](#).

⁴ For further details, see BC's 2022 [Climate Change Accountability Report](#).

Net Zero New Industry; Net Zero by 2030 for New LNG

The [New Energy Action Framework](#) announced a new commitment to require liquified natural gas (LNG) facilities in B.C. to have a credible plan to achieve net-zero emissions by 2030 in order to proceed through the environmental assessment process.

This may involve adopting best-in-class technology to reduce emissions as much as possible and offsetting their remaining emissions through high-quality, verified carbon offset projects. This new requirement will help ensure that proposed LNG facilities meet the Province's condition that LNG development fits within B.C.'s legislated climate targets.

One of the considerations in meeting the 2030 emissions target for the oil and gas sector will be to address additional emissions from significant new LNG facilities. By setting a requirement in place for new major LNG facilities to meet net zero targets by 2030, this policy can help reduce the risk of new facilities impacting B.C.'s ability to meet its 2030 emissions target for the oil and gas sector.

B.C. is consulting on the design of the Net Zero for New Industry through an intentions paper in Summer 2023; further details are available [here](#).

Low Carbon Fuel Standard (LCFS)

The Low Carbon Fuel Standard (LCFS) is established under the Greenhouse Gas Reduction (Renewable & Low Carbon Fuel Requirements) Act and the Renewable & Low Carbon Fuel Requirements Regulation. The LCFS is designed to reduce the carbon intensity (CI) of fuels used in the province by creating a financial incentive to supply low-carbon fuels in proportion to the amount of real, measurable emissions reductions they yield when substituted for conventional fuels.

The Low Carbon Fuel Standard is one of our most successful approaches to reducing GHGs from transportation. The LCFS sets carbon intensity targets for gasoline and diesel class fuels that decline each year. Under the program, fuel suppliers generate credits for supplying fuels with a CI below the targets and receive debits for supplying fuels with a CI above the targets. The debits and credits are proportional to the emissions a fuel generates over its full life cycle, and credits can be traded between fuel suppliers or banked for future use. At the end of each annual compliance period, suppliers must have a balance of zero or more credits to avoid non-compliance penalties.

Effective January 1, 2023, the Renewable and Low Carbon Fuel Requirements Regulation under the current Greenhouse Gas Reduction (Renewable and Low Carbon Fuel Requirements) Act was amended to:

- Increase the carbon intensity reduction requirement from 20% to 30% by 2030 in the gasoline and diesel fuel pools. The proposed carbon intensity reduction schedule will linearly increase the target each year from 2023 to 2030 to reach 30% by 2030.
- Increase the penalty rate for non-compliance with the carbon intensity requirements of the Act from \$200 per tonne to \$600 per tonne.

In Spring 2022, the Low Carbon Fuels Act (New Act) was passed to replace the current act. The New Act is intended to enable more greenhouse gas reductions, broaden the scope of the LCFS and make the LCFS easier to understand, administer, and enforce. The New Act also allows the LCFS to apply to the aviation sector. The Ministry of Energy, Mines and Low Carbon Innovation intends to require suppliers of jet fuel to meet annual carbon intensity reduction targets that progress linearly towards a 10% carbon intensity reduction in 2030.

Greenhouse Gas Reduction Standard for Natural Gas Utilities (GHGRS)

Under the CleanBC Roadmap to 2030, B.C. committed to introduce a cap on greenhouse gas emissions for natural gas utilities, encouraging new investment in low-carbon technologies and fuels as well as energy efficiency. The natural gas utility cap under the GHGRS will require gas utilities to undertake activities and invest in technologies to further lower GHG emissions from the fossil natural gas used to heat homes and buildings and power some of our industries.

Following further modelling and analysis, the standard will be set at approximately 6 Mt CO₂e per year for 2030, which is approximately 47% lower than 2007 levels. Since emissions from gas consumption are linked to industry (excluding oil and gas) and the built environment, the natural gas utility standard target is consistent with emissions targets for those sectors.

Utilities will determine how best to meet the target, which could include acquiring more renewable gases as well as supporting greater energy efficiency. Measures in CleanBC allow gas utilities to use renewables such as synthetic gas, biomethane, green and waste hydrogen and lignin to achieve this.

The 2022 Accountability Report outlined a goal to introduce legislation to establish the GHGRS in 2024.⁵

Federal Cap On Oil and Gas Sector Emissions

On July 18, 2022, the Government of Canada published a discussion paper to launch formal engagement on two potential regulatory options to create a cap on oil and gas sector GHG emissions.

The discussion paper proposed two different paths to the design of the cap:

Option 1: A cap-and-trade system (under the Canadian Environmental Protection Act) that sets a regulated limit on emissions from the sector.

Option 2: Modifying the federal OBPS requirements to create price-driven limits on emissions from the oil and gas sector.

B.C. will engage with the federal government in the policy development process to determine the best path forward to minimize regulatory overlap with the federal government and identify pathways for integration with the federal approach that prioritizes:

- Emissions reductions;
- Regulatory efficiency;
- Carbon leakage; and
- Affordability.

Details of the federal cap approach will be critical elements for consideration of any final design of B.C.'s emissions cap.

⁵ See p. 34 of BC's 2022 Accountability Report, https://www2.gov.bc.ca/assets/gov/environment/climate-change/action/cleanbc/2022-ccar/2022_climate_change_accountability_report.pdf

B.C. Oil and Gas Cap – Enhanced B.C. OBPS

In evaluating options to implement an emissions cap for B.C., the Province is proposing to design the cap by enhancing the tools available under the B.C. OBPS for the oil and gas sector to set a carbon cost that will achieve the sectoral target outcomes.

There are several reasons why B.C. is taking this approach rather than establishing a new, separate cap-and-trade system as the main tool to achieve the cap target:

- The proposed enhanced B.C. OBPS approach could reduce the potential administrative overlaps for facilities and operators by not introducing another carbon trading compliance system in addition to the B.C. OBPS.
- B.C. can establish the cap using this approach more efficiently through regulatory amendments to the current system than a brand-new system, which would require new legislation and new mechanisms to run credit auctions, etc. By building on existing tools, this approach helps increase certainty associated with compliance timelines, requirements, and price levels compared to the lengthy lead time that would be required if B.C. established a separate cap-and-trade mechanism for the sector.
- This approach has the least potential for challenging regulatory overlaps with the proposed federal cap, and ensures B.C. is moving forward with its own approach while Canada develops and finalizes the national approach.
- Cap-and-trade systems work best when there are large markets with different opportunities to find lowest-cost reductions across sectors. These large systems ensure that the easiest and cheapest reductions are achieved right away and offer market solutions for emissions trading across sectors. B.C.'s oil and gas sector is relatively small (compared with established cap-and-trade systems like the EU Emissions Trading System, the California / Quebec cap-and-trade system, etc.)

Through engagement and policy development, B.C. can find ways to maximize emissions reductions driven by investments in decarbonization.

Policy Design Considerations

Designing an effective and efficient cap on oil and gas emissions is complex. Some of the key policy design considerations include:

- Features or ‘levers’ of the B.C. OBPS that could be used to achieve the cap (e.g., stringency, carbon price, etc.);
- Differences between the ‘top down’ inventory used to set the sectoral target and the ‘bottom up’ data B.C. has from individual operations;
- Which tools outside of the B.C. OBPS could be enhanced to help support achieving the cap (e.g., Low Carbon Fuel Standard, electrification, permitting efficiency, etc.);
- How to accurately forecast sector emissions so the features of the enhanced B.C. OBPS can be designed so the target is achieved (and how to regularly measure and report on progress and adjust as necessary); and,
- How to ensure the design used to meet the targeted reductions supports cost-effective measures that address competitiveness and carbon leakage risks.

Several policy design considerations are set out below and are followed by discussion questions to guide feedback. Some elements of policy design are not in scope for this consultation, and these are also listed below.

There may be considerations that are important to First Nations and/or stakeholders but aren’t listed below. Feedback on these potential considerations is welcome, either in writing or via the more detailed/technical discussions that will occur throughout the design phase.

Cap Policy Design Considerations – Out of Scope

Some elements of the cap are out of scope of this engagement. These include:

- **The target:** the enhanced B.C. OBPS will be designed to meet the sector target for oil and gas (a 33–38% emissions reduction by 2030 against 2007 levels)
- **Production curtailments:** the design of the cap is to limit emissions, and will not be designed as a limit or cap on production
- **Types of Carbon Offsets:** Only offsets approved by the Province through the B.C. Offset System will be accepted under the enhanced B.C. OBPS. GGIRCA sets the requirements for offsets in the B.C. Offset System. Under the GGIRCA regulations, recognized units from other jurisdictions could be deemed equivalent by B.C. if they meet B.C.’s offset requirements and international standards.
- **Scope of Emissions covered:** The policy will apply to the emissions from regulated activities; it will not apply to emissions from the end consumers of B.C. oil and gas exports in other jurisdictions.
- **Subsectors covered:** upstream oil and gas production, transmission pipelines, and LNG over 10kt CO₂e will be included under the cap.

Cap Policy Design Considerations – In Scope

Five key areas are presented here for discussion. Section 7 of this paper outlines discussion questions to request feedback on each of the policy design considerations listed below. B.C. also welcomes feedback on design elements that are important for B.C. to consider but aren't listed here.

1. Scope of Policy Coverage – Emissions, Subsectors, and Facilities:

- **GHGs covered by the cap:** the enhanced OBPS could be designed to include GHGs not currently covered by the B.C. OBPS, such as fugitives and non-useful venting. Some of these emissions are being regulated and reduced through other mechanisms, like the methane regulations described in Section 3.

In addition, the sector target was set using Provincial Inventory (PI) data, which is the main Province-wide emissions report that B.C. uses to track progress to our provincial and sectoral targets, but it is not the same mechanism used to regulate emissions under the B.C. OBPS.

B.C.'s PI is aligned with Canada's national GHG inventory, which is produced using top-down, aggregated estimates and methodologies designed for use internationally under the United Nations Framework Convention on Climate Change (UNFCCC). The PI is not broken down by facility or operator level; the inventory was not designed to be used as a tool to regulate the carbon produced by individual companies at the facility-level.

B.C.'s required industrial emissions reporting under GGIRCA, by contrast, is specifically designed as a bottom-up emissions inventory which relies on internationally recognized methodologies to require emissions reporting at the company and facility level. GGIRCA's industrial reporting system enables B.C. to regulate and price emissions from major emitters in B.C.

Using an enhanced B.C. OBPS model, the cap would place compliance requirements on individual facilities and would need to use facility-specific reporting data to support emissions attribution and regulation. Understanding any differences or gaps in the top-down emissions inventory and the bottom-up GGIRCA industrial emissions inventory will be important to ensure the baselines and reductions achieved with administrative fairness and effectiveness.

- **Additional subsectors covered by the cap:** As noted above, upstream production, transmission pipelines and LNG will be included in the cap. Decisions are needed to determine whether the cap should include additional subsectors, such as natural gas distribution and refineries. These subsectors are included in B.C.'s 2030 sector target for oil and gas. The carbon intensity of some fuels supplied by refineries are regulated by the Low Carbon Fuel Standard, and the forthcoming Greenhouse Gas Reduction Standard will regulate the emissions from natural gas utility customers. Consideration is needed to reduce regulatory complexity of these subsectors and potential impacts to consumers resulting from the interaction between policies.

- **Facilities covered by the cap:** Oil and gas facilities that are part of a company that has annual in-B.C. greenhouse gas emissions of over 10kt CO₂e are required to report under GGIRCA and will be required to comply with the B.C. OBPS pricing system. Smaller operators in the oil and gas sector that produce under 10kt CO₂e are part of the estimation in B.C.'s Provincial inventory and sectoral target but are not currently reporting under GGIRCA and will not be required to comply with the B.C. OBPS. These facilities include small companies engaged in upstream production activities and the operators of small LNG facilities. These operations will continue to be subject to B.C.'s carbon tax.

B.C. will consider the best approaches to address emissions from smaller facilities that form part of the sector's total emissions but do not meet the threshold to be covered under GGIRCA reporting and the B.C. OBPS.

2. Trajectory

The enhanced B.C. OBPS will be designed to meet the oil and gas sector target by 2030. Under the B.C. OBPS, the reduction factors are tightened by the 2% annual rate, and the compliance charge increases by \$15/tonne annually, up to \$170/tonne in 2030.

The price trajectory of the enhanced B.C. OBPS could take into consideration the technological readiness of key mitigation solutions, such as electrification and carbon capture, use and storage (CCUS), and key timelines for deployment of the associated CCUS and electrification infrastructure (including, but not limited to, approaches to accelerate permitting, partnerships and/or ownership with First Nations CCUS projects or new generation and transmission of electricity, and/or innovative funding models with private sector investment in decarbonization). Should the price trajectory be scaled to reflect these considerations?

3. Support to reduce emissions

There are several ways to reduce emissions from the oil and gas sector:

- Increased efficiency, identification and repair of equipment leaks, etc.;
- Electrification of the upstream, midstream and LNG facilities that use natural gas to power their operations;
- Capture of vented methane; and
- CCUS technologies that can permanently sequester emissions from their own facilities and/or other industrial emitters across B.C.

The most significant opportunities to reduce emissions are through CCUS and electrification but can also be the most challenging to achieve. Electrification requires significant new transmission infrastructure, which can take time to receive permits and approvals, requires deliberate and meaningful consultation, engagement and partnerships with First Nations and rights and title holders, and investments from public and private sectors to fund and build. Some very remote facilities may face greater costs and geographic constraints to be connected to the transmission grid. The new BC Hydro Task Force is working to advise government on approaches to modernize the regulatory framework to align with government's CleanBC priorities.

Similarly, CCUS will also require new infrastructure, and not all facilities will have the same access to geological storage opportunities. Site location will play a major role in CCUS project economics and technology options that are available to companies. B.C. is moving forward with developing a CCUS protocol for approval under B.C.'s offset system, but innovative approaches from private investors, communities, and the federal and provincial governments may be needed to realize the reduction opportunities from CCUS in B.C.'s oil and gas sector.

The policy design of the enhanced B.C. OBPS could consider what support is needed to encourage clean technology investments. This could include programs like the CleanBC Industry Fund to support further reductions for existing operations in the sector.

4. Demonstrating progress to the 2030 target

B.C. will consider approaches to ensure that the sector remains on track to meet the targets and the enhanced B.C. OBPS system is working as an effective, efficient tool to reduce emissions while limiting the administrative burden and regulatory complexity for the sector.

An understanding of the impacts of interactions with other B.C. and federal policies, outcomes for emissions and for emissions leakage, and the overall progress of the sector with technology and infrastructure planning will be needed.

BC will also consider options to ensure the approach is transparent and credible, with opportunities for input from experts, industry, First Nations, and other interested groups.

As an example of the type of process that B.C. could use, the development of the methane regulations implemented in 2020 by the BC Energy Regulator included a commitment to complete a review of the regulation and its effectiveness in ensuring the sector was meeting B.C.'s 45% methane reduction target by 2025. Details of this process are [available publicly on BCER's website](#). This review was completed based on learnings from one year of implementation, relevant research, and feedback from interested parties.

The Province could adopt a similar approach to continuous improvement in implementation of the oil and gas cap, with regular intervals for review.

5. Competitiveness and Carbon Leakage

If B.C.'s policies impact the sector in ways that reduce oil and gas production in B.C. and lead to increased production in jurisdictions with weaker climate policies, overall climate pollution is not reduced (this is sometimes called 'carbon leakage'). B.C. is seeking to find a balance whereby climate policies drive absolute emissions reductions without causing carbon leakage or disincentivizing investments in decarbonization of existing operations. This balance is also important when considering the impacts of carbon leakage in B.C. communities where the revenues and jobs created by the sector support the local economy and the delivery of government services.

When discussing competitiveness of the sector, it is important to consider not only relative carbon costs, but also the broad set of considerations that inform firms' investment decisions. There are questions in the following section that cover these considerations.

Discussion Questions

We welcome further comments and suggestions within the areas in scope described in Section 6; the following discussion questions are intended to help prompt ideas and feedback.

Question 1: Scope

- **GHGs covered:** The B.C. OBPS does not cover fugitives or certain types of venting for the oil and gas sector; are there opportunities to expand coverage of the cap to include more emissions sources? What would be the benefits / drawbacks?
- **Subsectors covered:** Should refineries and/or natural gas distribution from gas utilities be in or out of the cap policy? Why or why not?
- **Facilities included:** Should the enhanced B.C. OBPS establish new minimum emissions requirement thresholds for oil and gas sector to require smaller emitters (under 10kt CO₂e) to report under GGIRCA and comply with the oil and gas cap? Why or why not? If so, what should the threshold be?

Question 2: Price Trajectory / Increased Stringency / Compliance Options

What pricing pathways and price levels could drive investments in decarbonization in B.C.? Should the trajectory be fixed (i.e., annual tightening rates) or should different trajectory rates be considered? What are the advantages and disadvantages of different approaches? What should the allowable usage of compliance options (e.g., offset units) be to meet the incremental requirements of the enhanced B.C. OBPS?

Question 3: Support to Reduce Emissions

What approaches could be used to support innovation and investment in reductions, while mitigating emissions leakage or production curtailments in the oil and gas sector (e.g., program design like the CleanBC Industry Fund)?

How could the CleanBC Industry Fund further support the existing facilities and operations in the oil and gas sector in meeting the B.C. Oil and Gas sector cap framework? Should additional funding from the enhanced B.C. OBPS (incremental to the B.C. OBPS compliance charge) be considered under the fund?

Question 4: Demonstrating Progress

How can B.C. ensure that the oil and gas cap is on track to meet the target and that the regulatory approach under the enhanced B.C. OBPS is effective? Are there elements of the BCER's evaluation review process of B.C.'s methane regulations that can be a helpful model to consider replicating for the oil and gas cap? How can we address the gaps between the PIR emissions inventory and the GGIRCA facility reporting to set a baseline that can be regulated appropriately to meet the sectoral target? What mechanisms need to be in place to take action if the review process shows B.C.'s oil and gas sector is not on track under the enhanced B.C. OBPS to meet the targets?

Question 5: Competitiveness and Carbon Leakage

What steps can B.C. take to balance a competitive business climate for the sector while ensuring it meets its emissions targets? How do the costs associated with climate policy compare to other costs? How does the price of gas and/or the price of the Canadian dollar compare to carbon costs in investment decisions? What would be the optimal price on carbon for the sector? Are there measures outside of climate policy that government could take to reduce costs and help mitigate the impacts of increased carbon price that are consistent with meeting sectoral and facility targets?

Timelines and Next Steps

B.C. has committed to completing engagement on the cap by the end of the year. B.C. will engage with operators, First Nations rights and title holders, Indigenous Organizations, labour, local governments, environmental non-governmental organizations, and the Minister of Environment and Climate Change Strategy's Climate Solutions Council to build in input on the policy design considerations outlined in this paper.

The comment period on this policy paper will be open from Wednesday, July 26 – October 24, 2023.

Appendix 1 – B.C. OBPS Technical Summary

The Province’s carbon pricing system is a key component of B.C.’s plan to meet emissions targets across the economy, including oil and gas. B.C.’s carbon tax was introduced in 2008 and was the first of its kind in North America. In 2018, B.C. introduced the CleanBC Program for Industry, which included the CleanBC Industrial Incentive Program and the CleanBC Industry Fund, which together supported industrial competitiveness and emission reductions.

In December 2020, the federal government announced that all provinces and territories must have a carbon price that increases by \$15 per tonne annually starting in 2023 until the price reaches \$170 per tonne in 2030. In Budget 2022, the B.C. government announced it would review the carbon tax to ensure it continues to drive emissions reductions while protecting affordability and economic competitiveness. B.C. also committed to meet or exceed the federal benchmark in line with the increasing federal price requirements.

BC Budget 2023 implemented the review’s results through changes to annual carbon tax rate, addressing affordability for families by increasing support for British Columbians through the Climate Action Tax Credit, and by redesigning B.C.’s industrial carbon pricing system to move to a new pricing system for industrial emitters.

BC Budget 2023 also indicated that a portion of revenues from the B.C. OBPS will be directed to continuing the CleanBC Industry Fund, which supports the development, trial, and deployment of projects that reduce GHG emissions from large industrial operations. Until the full framework is in place, the CleanBC Program for Industry will continue under its current funding model.

The following table outlines the emissions covered under the B.C. OBPS from the oil and gas sector and the emission reported for each category under the latest available GGIRCA reported emissions:

Emission Category	2021 GGIRCA Reported Emissions (Mt CO ₂ e) ⁶	B.C. OBPS Compliance
Flaring	0.48	Yes
Fugitives	0.51	No
General Stationary Combustion	7.1	Yes
Industrial Process	0.19	Yes
Non-Useful venting	0.79	No
Useful venting	0.39	Yes

⁶ Emissions calculated from AR4 global warming potentials. Emissions from wastewater waste, and from on-site transportation are not listed as they represent less than 0.00 Mt CO₂e of the emissions reported by the sector. NAICS codes included: conventional oil and gas extraction; natural gas distribution; non-conventional oil extraction; oil and gas extraction (except oil sands); pipeline transportation of natural gas; services to oil and gas extraction, and petroleum refining.

The emissions covered by the B.C. OBPS for the oil and gas sector did not change from those covered under the previous carbon tax regime. Fugitive emissions are a significant source of emissions (12%) for the sector; these emissions are not covered under the B.C. OBPS as they are difficult to measure and charge for under carbon pricing systems and are covered under B.C.'s regulatory framework for methane, which is on track to achieve reductions in line with the 2025 targets. Further regulations are in development to reach the 2030 target of a 75% reduction in methane emissions from the oil and gas sector. (See Section 3 for further details of B.C.'s methane regulations.)

The performance standard is calculated based on the following formula:

$$\text{Performance Standard} = \text{Reduction Factor} * \text{Production Weighted Average Emissions Intensity}$$

Where:

The **Reduction factor** determines the percentage of priced emissions for a specific project.

The **Production Weighted Average Emissions Intensity** is the total emissions divided by the total production of a product.

The “emissions limit” of a given facility is the calculation operators will use to determine whether they have a compliance obligation based on the emissions intensity of their production against the performance standards for each product.

If an industrial facility produces emissions above the emission limit, then they are subject to a compliance obligation for those excess emissions. Facilities that emit below the emission limit earn credits that may be traded or used to meet a future compliance obligation. The following figure shows what this system looks like for operations that are under the emissions limit (operation 1); meeting the emissions limit (operation 2); and above the emissions limit (operations 3 and 4.)

B.C.'s Output-Based Pricing System (B.C. OBPS)

New System (as of April 1, 2024)

