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# Growing a Resilient Canadian Biofuel Sector

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## Executive Summary

Canada's liquid and gaseous biofuels sector represents a strategic and economic opportunity to support Canada's energy security and competitiveness amid growing global trade uncertainty and energy market volatility. Growing Canada's domestic biofuels sector can help create jobs, contribute to GDP, mitigate tariff and supply chain exposure, and build demand for Canadian agricultural and forestry feedstocks while reducing greenhouse gas emissions. The biofuels sector can also support a more diversified domestic fuel supply chain and reduce vulnerability to global market shocks, particularly in regions with high import dependencies. While access to lower-cost imported fuels can offer short-term benefits, increasing import dependence exposes Canada to energy security and supply risks. These risks are especially acute in the aviation sector, where Canada relies on imports for about 35% of its conventional jet fuel.

At the same time, increasing competitive pressures, particularly from U.S. biofuels policy supports and subsidies, are constraining investment and threatening future growth in Canada. Maintaining the current policy framework would likely increase Canada's import reliance, limit domestic value-added production, slow progress in decarbonizing hard-to-abate sectors, and result in forgone economic and industrial benefits. By contrast, unlocking the full potential of Canada's clean fuels economy and achieving Canada's climate, energy security, and competitiveness objectives would require stronger alignment of policy tools, including addressing the residual cost and risk gaps.

Federal and provincial measures, including the Biofuels Production Incentive (BPI), Clean Fuel Regulations (CFR) and provincial domestic content requirements can provide near-term

stability; however, a more coordinated and sustained approach would help provide longer-term certainty and scale domestic production.

This report highlights opportunities to strengthen Canada's domestic biofuels sector through potential federal, provincial, and territorial (FPT) action. It explores opportunities for bio-based diesel (BBD), ethanol, co-processed fuels, sustainable aviation fuel (SAF), and gaseous biofuels such as renewable natural gas (RNG), biogas, and renewable propane, including arctic-grade biofuels. The report identifies potential shared outcomes for growing a competitive and resilient Canadian biofuels sector that:

- meets 60% of domestic biofuel demand with Canadian product by 2030, up from 48% in 2025;
- competes effectively with international jurisdictions for investment potential;
- supports energy security, reduces fuel supply vulnerabilities, and supports economic growth across regions;
- contributes to the higher-value utilization of waste materials and natural resources;
- strengthens and expands feedstock supply chains, leveraging Canada's agricultural and forestry resources and organic waste streams;
- enables emissions reductions by reducing the lifecycle carbon intensity of Canada's liquid and gaseous fuel supply, and;
- positions Canada as a global supplier of low-carbon fuels.

To achieve these outcomes, the report organizes policy options under four core themes:

1. Improving cost competitiveness;

2. Strengthening market demand and signals;
3. Facilitating investment and improving production capacity and efficiency; and,
4. Enhancing infrastructure and market access.

These options reflect the need for tailored approaches across fuel types and regions, and the importance of policy alignment to reduce complexity, support integrated supply chains, and build a diverse domestic fuel sector resilient to global fuel market fluctuations.

## Disclaimer

This report is a deliverable of the Federal, Provincial, and Territorial (FPT) Biofuels Working Group. It presents potential shared outcomes for Canada's liquid and gaseous biofuel sector and a range of policy options and considerations identified through Working Group discussions and engagement with industry partners. The report is intended to inform further discussions and analysis. The report does not represent government policy recommendations, nor does it constitute a commitment by, or binding obligation on, any participating jurisdiction.

## Context

Regulated demand for biofuels in Canada is outpacing domestic production capacity. While access to imported biofuels has helped meet domestic demand cost-effectively, particularly when domestic production has been constrained, an over-reliance on imports increases energy security and trade risks. It also limits Canada's ability to capture the global economic benefits of a growing clean fuels market.

In September 2025, Prime Minister Carney announced a time-limited Biofuels Production Incentive (BPI) program to support

Canadian renewable diesel and biodiesel producers and, in turn, assist Canada's canola and agriculture producers. The announcement also proposed targeted amendments to the Clean Fuel Regulations (CFR) to support the domestic low carbon fuel sector while maintaining the CFR's primary focus on lowering emissions. These efforts help stabilize the sector in response to competitiveness challenges. Recognizing that more action is needed to scale domestic biofuel production, the Prime Minister committed to working with provinces and territories to explore complementary measures that ensure a stable, thriving domestic low-carbon fuels industry now, and in the future. In October 2025, the FPT Biofuels Working Group was established to support the development of a potential long-term approach.

This report is a primary deliverable from the FPT Working Group, focusing on bio-based diesel (BBD), ethanol, co-processed fuels, sustainable aviation fuel (SAF), and gaseous biofuels such as renewable natural gas (RNG), biogas, and renewable propane, including arctic-grade biofuels. It highlights Canada's opportunity to grow the biofuels sector and identifies key outcomes and policy options that could guide coordinated FPT action. It explores key barriers and opportunities, and unique regional considerations that can influence policy impact and outcomes across Canada (e.g., accessibility, competitiveness, affordability, geographic, demographic, and infrastructure). The analysis is informed by NRCan-led economic modelling, and engagements with provincial and territorial governments and industry partners. See Annex 1 for additional details on the Working Group's structure and Annex 2 for an overview of the cashflow analysis.

## The Case for Growth

Canada's biofuels sector plays an important role in the economy. In 2025, the liquid biofuels sector (ethanol, BBD, and co-processed fuels) contributed \$5.9 billion to GDP and supported 11,600 jobs<sup>Footnote1</sup> – with the potential to grow 57% by 2030<sup>Footnote2</sup>. At current levels, the industry drives demand for Canadian feedstocks, including 555,000 Metric Tonnes (MT) of canola oil (11.3% of domestic production), 3,800,000 MT of corn (25.5% of domestic production) and 446,000 MT of wheat (1.1% of domestic production), valued at \$5.5 billion a year<sup>Footnote3</sup>, as well as low volumes of forestry feedstocks for emerging production of biocrude. In 2024, 292 biogas and RNG projects processed over 2 million tonnes (wet) of manure, crop residues and off-farm organics, representing only 14% of available feedstock in Canada being utilized<sup>Footnote4</sup>. In addition to bolstering rural economic development, domestic biofuel production can also contribute to fuel supply diversification and reduce exposure to global fuel market fluctuations, particularly in regions with higher reliance on imports.

Competitiveness pressures from ongoing U.S. subsidies and policy changes – including the U.S. 45Z Clean Fuel Production Tax Credit and the U.S. Environmental Protection Agency's recent announcement to reduce credit values for foreign fuels and fuels produced with foreign feedstocks by 50% in 2028 – are limiting domestic investment in future biofuel production, and the ability of Canadian feedstocks to continue to fairly access the U.S. market. Growth is further constrained by challenges in achieving economies of scale, infrastructure gaps, investment uncertainty, and barriers to accessing global markets. Despite regulatory measures that support demand, domestic production remains below necessary capacity, and some facilities were forced to idle, while others are operating at an economic loss. This puts

Canada's biofuels industry at a considerable price disadvantage relative to U.S. imports, which NRCan analysis estimates to be approximately 23 cents per litre for renewable diesel content and 5 cents per litre for ethanol. In some regions, access to domestically produced biofuels can also be constrained by transportation and storage infrastructure limitations, even where production capacity exists.

Without additional action, Canada risks losing the economic benefits of growing its domestic biofuels sector, including increased utilization of Canadian feedstocks and greater value-added processing capacity.

In 2025, about 48% of the liquid biofuels consumed in Canada were produced domestically, though there is significant regional variability. By 2030, Canadian demand for biofuels, primarily driven by the CFR, is expected to exceed 8.5 billion litres, up from 5.7 billion litres in 2025<sup>Footnote5</sup>. Without additional production capacity, Canada's import reliance could rise above 65%, increasing exposure to energy security and economic risks. These risks are compounded for the aviation sector, where Canada relies on imports, primarily from the U.S., for about 35% of our conventional jet fuel. A stronger domestic biofuels industry could benefit the economy, environment, and national security. To mitigate energy security risks and benefit from growing biofuels demand, Canada will need to address the competitiveness gap between domestic and international producers, and between clean and conventional fuels. When conventional fuel prices rise, biofuels become more cost-competitive, underscoring the value of a diversified and reliable domestic fuel supply. Achieving the best outcomes will require tailored approaches for different fuels and regions (see Annex 3

for further details). This report examines how measures can be pursued effectively across the country and the sector.

## Canada's Policy Landscape

Governments across Canada have introduced policies to support domestic production and mitigate competitiveness challenges (see Annex 4 for a full overview of active policies). In addition to provincial incentives for biofuel production and renewable fuel blend mandates for gasoline and diesel in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario and Québec, key elements of Canada's regulatory framework and competitiveness support include:

**Clean Fuel Regulations (CFR)** – a national, market-based system that requires fuel suppliers to reduce the carbon intensity of liquid fossil fuels (i.e., gasoline and diesel) over time. By creating compliance credits for low-carbon fuels, the CFR creates regulated demand for, and supports the cost competitiveness of, low carbon fuels.

**British Columbia's Low Carbon Fuel Standard (BC LCFS)** – requires reductions in fuel carbon intensity and minimum renewable fuel content requirements in the fuel supply, including for jet fuel (1% SAF renewable fuel requirement in 2028, increasing to 3% by 2030). The BC LCFS also creates crediting opportunities for low-carbon fuels, including for jet fuel (2% jet fuel carbon intensity reduction in 2026, increasing to 10% by 2030).

**Tax Credit for the Production of Biodiesel Fuel in Québec** – supports eligible corporations that produce qualifying biofuels and pyrolytic oil within the province from April 1, 2023, to March

31st, 2033, through a refundable tax credit. Eligible volumes must be blended into gasoline or diesel and consumed locally to qualify.

**Provincial Domestic Content Requirements** – British Columbia’s Low Carbon Fuels Regulation and Ontario’s Cleaner Transportation Fuels Regulation require a portion of mandated renewable content in gasoline and diesel to be met with Canadian-produced biofuels, securing domestic demand.

**Emission Reduction Funding Programs** – Emissions reduction funding programs can be registered under the CFR, which enables primary suppliers to satisfy 10% of their CFR obligation by contributing to a registered funding program. Contributions are used to fund projects that support the deployment or commercialization of technologies that reduce GHG emissions. Current programs include the Emissions Reduction Advancement Program, the Newfoundland and Labrador Emissions Reduction Fund, the Fuel Innovation Fund (Alberta), and the NorthX Emissions Reduction Fund (BC).

**Biofuels Production Incentive (BPI)** – provides a per-litre production incentive for biodiesel and renewable diesel produced in 2026 and 2027, sold into the Canadian market and made with North American feedstocks, providing short-term cost-competitiveness and stability.

**Canada Infrastructure Bank (CIB)** – can provide investments in the form of equity or debt for revenue-generating biofuel production infrastructure, on a project-by-project basis.

## Shared Outcomes

The outcomes outlined in this report build on existing policies to grow a competitive and resilient domestic biofuels sector, while supporting the agriculture and forestry sectors. Table 1 presents the current state of the sector, including key barriers identified through engagement across governments and industry, the desired future state and associated outcomes by 2030 and beyond. Achieving these outcomes would require collaboration and coordination across governments.

The shared objective is to meet 60% of Canada's biofuel demand through domestic production by 2030, up from approximately 48% in 2025. This will require increasing domestic production by 80%, which can be achieved by maximizing existing production capacity and growing production capacity by 13%.

This metric reflects progress in domestic production capacity, investment competitiveness, infrastructure development, regulatory efficiency and feedstock utilization. It also helps respond to Canada's risk exposure relating to energy supply and global trade.

**Table 1: Shared Outcomes for Canada's Biofuel Sector for 2030 and beyond**

| From                                                                                                                                                                                                 | To                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• <b>Canada relies on clean fuel imports, primarily from the U.S.,</b> to meet approximately 50% of regulated demand, and a significant portion of</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Canada meets 60% of its regulated biofuel demand domestically,</b> while also scaling SAF production and ensuring</li> </ul> |

| From                                                                                                                                                                                                                                                    | To                                                                                                                                                                                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>conventional jet and heating fuel, exposing Canada to supply and economic risk.</p>                                                                                                                                                                  | <p>reliable access to arctic-grade biofuels.</p>                                                                                                                                                                                                                            |
| <ul style="list-style-type: none"> <li>• <b>Canadian biofuel producers face higher costs and reduced competitiveness</b> due to generous ongoing U.S. subsidies and market incentives, limiting investment and sector growth.</li> </ul>                | <ul style="list-style-type: none"> <li>• <b>A competitive investment environment</b>, supported by long-term and bankable policy frameworks and programs, where Canadian producers can attract capital and compete effectively with international jurisdictions.</li> </ul> |
| <ul style="list-style-type: none"> <li>• <b>Different policies across jurisdictions</b>, as well as differing project development and regulatory timelines increase complexity, delay investment and limit efficient national supply chains.</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Aligned policies and predictable regulatory processes</b> reduce complexity, lower project risk, and enable coordinated growth of the domestic biofuels sector.</li> </ul>                                                      |

| From                                                                                                                                                                                                                                                                                                        | To                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• <b>Infrastructure gaps — including regional transportation, point-of-access connections, and enabling systems such as storage, ports, and fuelling access</b> — increase costs, limit access to biofuels across Canada and constrain new market access.</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Integrated and accessible infrastructure</b> enables efficient movement of liquid and gaseous biofuels and reliable availability to end-users across all regions and potential export markets.</li> </ul>                                                                      |
| <ul style="list-style-type: none"> <li>• <b>For some feedstocks, supply challenges</b> limit the biofuels sector's ability to fully leverage Canada's agricultural, forestry resources and organic waste streams – reducing the associated economic benefits for these sectors.</li> </ul>                  | <ul style="list-style-type: none"> <li>• <b>Strengthened and expanded feedstock supply chains</b> fully leverage Canada's agricultural and forestry resources and organic waste streams, supporting biofuel production while maximizing economic growth – including for rural communities and resource sectors.</li> </ul> |

## Core Themes and Policy Options

These outcomes could be achieved through a combination of policy options. Implementation is expected to vary across Canada to reflect unique regional considerations and priorities. Progress will vary fuel to fuel based on its role in Canada's economy.

The ability for biofuels producers to achieve a positive operating margin was a key consideration in developing the set of options, actions, and results listed below. These policy options are intended to inform federal, provincial, and territorial supports targeting sectors across the biofuels value chain, from feedstock production and fuel production to distribution, and end-use – covering both liquid and gaseous fuels.

To help governments coordinate action, these options have been organized into four themes:

1. Achieving cost competitiveness
2. Strengthening market development and demand signals
3. Facilitating investment and improving production capacity and efficiency
4. Improving infrastructure and market access.

This report focuses on the potential economic benefits of a competitive and growing biofuels sector in Canada. Assessing the full cost and benefit of specific options, including impacts on affordability and international trade, would require further analysis.

### **1 Improving Cost Competitiveness**

For Canada's biofuels sector to be sustainable long term, it must be operationally cost competitive. A Canadian producer's ability to

compete on production costs with other jurisdictions and conventional fuel producers is often a key factor influencing investment decisions and sustained market participation.

Operational cost competitiveness can be improved by providing incentives that lower ongoing production costs and support efficiencies across domestic value chains, including for the supply of agricultural and forest feedstocks or organic waste. For instance, new biofuel demand for forest residues can support transformation of forest sector value chains for long-term operational competitiveness and sustainability

### Theme 1. Improving Cost Competitiveness

| # | Policy Options                                                             | Potential Action Areas                                                                                                            | Considerations                                                                                                                                                                                        | Results / Outcomes                                                                                                                |
|---|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 1 | Promote the price competitiveness of Canadian liquid and gaseous biofuels. | Implement fuel-specific production incentives, contracts for difference and/or tax credits scoped to the desired level of growth. | <b>U.S. 45Z:</b> U.S. biofuel subsidies are a key driver of competitiveness challenges for Canadian producers. Reducing import reliance would likely require a mix of regulatory and fiscal measures. | <b>Impact:</b> High<br>Improves Canadian producers' ability to compete in domestic and international biofuels markets, supporting |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                                                                                                                                                       | Results / Outcomes    |
|---|----------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
|   |                |                        | <p><b>Operating margins:</b> NRCan modelling shows that operating costs are the primary challenge. For some biofuels (e.g., SAF), even with a no-cost facility, producers could not operate at a profit. Policies supporting a positive operating margin are critical for sectoral growth.</p> <p><b>Bankable policies:</b> Stability and duration are key to driving investment. Stability could be promoted by</p> | increased production. |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                                                                                                                                                                            | Results / Outcomes |
|---|----------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                |                        | <p>designing incentives that account for fluctuations in low carbon fuel credit markets. Aligning supports with 10-year investment timelines would better inform industry action.</p> <p><b>Fiscal measures:</b><br/>The BPI reduces the incentive gap between Canada and the U.S. for biodiesel and renewable diesel in 2026 and 2027. Extending BPI duration and/or providing similar supports to other biofuel types could improve</p> |                    |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                                                                                                                                                               | Results / Outcomes |
|---|----------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                |                        | <p>sectoral stability at significant cost.</p> <p><b>Investment Tax Credits (ITCs):</b> biofuel facilities are capital intensive, ITCs can lower upfront costs and debt servicing requirements, improving long-term price competitiveness.</p> <p><b>Competitive production pathways:</b> Both SAF and renewable diesel can be produced using the same pathway. As the latter is more economically efficient, a holistic</p> |                    |

| # | Policy Options                                                                                                                                                                                        | Potential Action Areas                                                                                                                                                                      | Considerations                                                                                                                                                                                                                                                                                                     | Results / Outcomes                                                                                                                                                                                                  |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |                                                                                                                                                                                                       |                                                                                                                                                                                             | biofuels policy would need to account for the production cost gap to incentivize SAF production.                                                                                                                                                                                                                   |                                                                                                                                                                                                                     |
| 2 | Provide financial incentives to support the recovery of agricultural residues, forestry feedstocks, and organic waste streams to increase feedstock availability and reduce biofuel production costs. | <p>Reimbursement of biomass collection costs for wildfire risk mitigation and forest management.</p> <p>Cost sharing for the acquisition of modern harvesting and collection equipment.</p> | <b>Achieving co-benefits:</b> Given the dispersed and remote nature of forest residues, recovery is costly. Making residue accessible for biofuels production would create revenue generation opportunities and strengthen the business case to conduct such activities, as well as lower biofuel production costs | <b>Impact:</b><br>Medium<br><br>Lower production costs resulting from greater collection efficiency, improved utilization of currently underused agricultural, forest, and waste feedstock, and reduced operational |

| # | Policy Options | Potential Action Areas                                                                                                                             | Considerations                                                                                                                                                                                                                                                                                                                                       | Results / Outcomes                                                                                                                   |
|---|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
|   |                | Transport subsidies to offset freight costs and support the development of new supply chains, including production pathways such as co-processing. | and improve price competitiveness. Broader co-benefits include improved forest management outcomes and reduced wildfire risk, particularly in remote and Indigenous communities.<br><br><b>Cost:</b> Incentives could include upfront and ongoing fiscal commitments, and their magnitude would depend on the scale at which they would be deployed. | barriers for collection and transportation.<br><br>Reduction of wildfire risk through the removal of combustible in-forest residues. |

| # | Policy Options                                                                                                                                                                                                 | Potential Action Areas                                                                                                                         | Considerations                                                                                                                                                                                                                                                                                                                                                                  | Results / Outcomes                                                                                                                         |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 3 | Improve operational efficiency and coordination in the harvesting, collection, and transportation of agricultural residues, forestry feedstocks, and organic waste streams to reduce biofuel production costs. | Develop best practices and standards for collection, processing, piling, transport, and storage of agricultural, forestry, and waste residues. | <b>Collaborative design:</b> Efficient collection and transportation of agricultural, forestry, and waste residues depend on clear standards, predictable permitting, training, harvesting methods, and equipment to reduce operating costs. Requires compatibility with complex PT forestry, landfill, and nutrient management regulatory frameworks and buy-in from industry. | <b>Impact:</b> Low Improved cost competitiveness from lower collection and handling costs, which in turn increases feedstock availability. |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                                                                                                               | Results / Outcomes |
|---|----------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                |                        | <p><b>Supply chain coordination:</b> Improving coordination across the supply chain helps reduce logistic inefficiencies, lower production costs, and improve price competitiveness.</p> <p><b>Cost:</b> Minimal costs associated with developing best practices and standards, and opportunities to leverage ongoing work done by provinces, territories, and industry.</p> |                    |

Given the established market and use of conventional fuels, and the cost gap between most conventional and clean fuels, policy and regulatory frameworks play an important role in supporting the clean fuels sector. In innovative sectors such as biofuels, growth is based on clear and durable demand signals through measures such as blending mandates and emissions regulations. Given the significant public benefits of domestic biofuels, including industrial diversification, reduced emissions, and the energy security and economic benefits of reducing reliance on imports, these signals must be predictable to be impactful.

A strong demand signal creates market stability in the near term and drives value for future investment by setting use requirements or creating long-lasting opportunities to access increased demand.

Government interventions in biofuels market should aim to support the full Canadian supply chain, including feedstock suppliers and biofuels producers – retaining value in Canada wherever possible.

## Theme 2. Strengthening Market Development and Demand Signals

| # | Policy Options                             | Potential Action Areas                              | Considerations                                              | Results / Outcomes                                                           |
|---|--------------------------------------------|-----------------------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------|
| 4 | Grow domestic and international demand for | Implement and strengthen carbon intensity reduction | <b>Strategic value:</b> Canadian biofuels support economic, | <b>Impact:</b> High<br>Creates new demand for current biofuels and increases |

| # | Policy Options                                                                                                                                                                                                                                  | Potential Action Areas                                                                                                                                                                                                                                       | Considerations                                                                                                                                                                                                                                                                                                                       | Results / Outcomes                                                                                               |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
|   | <p>Canadian liquid and gaseous biofuels and feedstocks to meet strategic objectives.</p> <p>Grow domestic and international demand for Canadian liquid and gaseous biofuels and feedstocks to meet strategic objectives <i>(continued)</i>.</p> | <p>requirements, utility blending and volumetric content requirements (including RNG), domestic credit multipliers and minimum domestic content requirements across Canada.</p> <p>Leverage trade channels to explore new markets for Canadian biofuels.</p> | <p>environmental , and energy resiliency goals. Stronger demand signals, alongside competitiveness supports, can help create conditions that enable domestic supply growth in support of Canada's strategic interests.</p> <p><b>Affordability:</b> Regulation is a measure with limited cost to governments' fiscal frameworks.</p> | <p>market access.</p> <p>Improved ability to meet economic, environmental, and energy resiliency objectives.</p> |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                                         | Results / Outcomes |
|---|----------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                |                        | <p>However, increased liquid and gaseous biofuels demand and blending requirements could lead to higher costs for some goods and services, depending on market conditions and policy design. While increased ethanol rates lower the cost of gasoline, higher biodiesel and renewable diesel rates</p> |                    |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                                                               | Results / Outcomes |
|---|----------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                |                        | <p>could raise the cost of diesel.</p> <p><b>Domestic content requirement:</b><br/>This measure would provide demand certainty for Canadian producers and aligning implementation with investment planning timelines would ensure Canada's economy and energy security benefit from its environmental policies. However,</p> |                    |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                                                                  | Results / Outcomes |
|---|----------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                |                        | <p>there could be increased compliance costs for obligated parties.</p> <p><b>Regional access and supply:</b><br/>Regional differences in feedstock availability, blending infrastructure, and fuel transportation logistics could affect supply availability and cost impacts of stronger volumetric content requirements.</p> |                    |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                                                               | Results / Outcomes |
|---|----------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                |                        | <p><b>National consistency:</b><br/>PT-only requirements can create a policy patchwork, decreasing clarity for the sector. National approach with PT support promotes flexibility and stability.</p> <p><b>Trade risks:</b><br/>Policies improving Canadian biofuels competitiveness should limit exposure to tariffs or</p> |                    |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                                                                                     | Results / Outcomes |
|---|----------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                |                        | <p>countervailing measures.</p> <p><b>Alignment with international standards:</b><br/>Differences in sustainability criteria, carbon accounting, and certification systems across jurisdictions can affect market access and create compliance complexity for exporters.</p> <p><b>Supply chain and logistics readiness:</b><br/>Export growth</p> |                    |

| # | Policy Options                                                                                                                             | Potential Action Areas                                                                                                                                                                   | Considerations                                                                                                                                                                                     | Results / Outcomes                                                                                                                                                    |
|---|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |                                                                                                                                            |                                                                                                                                                                                          | depends on adequate infrastructure (transportation networks, terminals, storage) and efficient integration with global supply chains.                                                              |                                                                                                                                                                       |
| 5 | Grow biofuels producers' demand certainty with deliberate, predictable, long-term public procurement (e.g., SAF's role in providing energy | Align multi-year public procurement and Buy Canadian strategies with access, transportation , and end-use infrastructure supports.<br><br>Align FPT regulations to increase governments' | <b>RNG impact:</b> Governments across Canada consume a significant amount of natural gas to support their operations. Advancing FPT emissions reduction initiatives that include RNG could provide | <b>Impact:</b> Medium<br><br>Increased demand certainty could help unlock private sector investment, reducing the need for government incentives, and provide stable, |

| # | Policy Options                                                                                                                                                      | Potential Action Areas                                                           | Considerations                                                                                                                                                                                                                                                                                                   | Results / Outcomes                                        |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
|   | <p>security for national defence).</p> <p>Grow biofuels producers' demand certainty with deliberate, predictable, long-term public procurement<br/>(continued).</p> | <p>ability to procure greater volumes of Canadian biofuels (e.g., SAF, RNG).</p> | <p>considerable support for gaseous biofuels producers.</p> <p><b>Sustaining demand:</b><br/>Apart from RNG, public procurement is not expected to be sufficient to grow industry on its own. Rather, it increases revenue certainty and helps establish critical infrastructure thereby making it easier to</p> | <p>predictable offtake that reduces investment risks.</p> |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                                                                                  | Results / Outcomes |
|---|----------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                |                        | <p>manage larger investments.</p> <p><b>Trade risk:</b> Policies influencing trade flows could result in increased trade risks.</p> <p><b>Cost:</b> No additional cost is anticipated, unless procurement volumes of more expensive biofuels increase to reflect decarbonization strategies necessary to complete in the global SAF market.</p> |                    |

| # | Policy Options                                                                              | Potential Action Areas                                                                                                                                                                                                                                                                                                                                | Considerations                                                                                                                                                                                                                                                                                                                                           | Results / Outcomes                                                                                                                                                                                                                                                                   |
|---|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6 | Support low-carbon fuel availability and accessibility for northern and remote communities. | <p>Improve existing, or create new, policies and programs that incentivize greater production of cold-climate biofuels and investment in northern or remote infrastructure.</p> <p>Align targeted incentives or procurement measures with major infrastructure initiatives (such as defence) to support the production and delivery of fuels that</p> | <p><b>Northern impact:</b> Reliable access to biofuels could address energy accessibility challenges, increasing quality of life. Connecting northern energy supply to defensive infrastructure investments could enable all-season access to biofuels.</p> <p><b>Transportation efficiency:</b> Fuel is expensive to transport to Canada's northern</p> | <p><b>Impact:</b> Low</p> <p>Unlocks demand from northern markets and promotes clean fuels strategic importance as part of Canada's energy supply.</p> <p>Investment in infrastructure to better connect northern and remote communities to supply chains in the rest of Canada.</p> |

| # | Policy Options | Potential Action Areas            | Considerations                                                                                                                                                                                                                                                                                                  | Results / Outcomes |
|---|----------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                | meet cold-climate specifications. | regions. Bundling requests and partnering with major initiatives may create new logistical efficiencies. Access to reliable fuel supply is critical for the operational readiness of the Royal Canadian Air Force and broader national security objectives, including efforts under Canada's Defence Industrial |                    |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                                                                                     | Results / Outcomes |
|---|----------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                |                        | <p>Strategy to strengthen northern energy networks.</p> <p><b>Energy Reliability:</b> Enabling infrastructure (e.g., storage) and multiple transportation pathways will have an outsized effect on northern communities' ability to procure and use biofuels.</p> <p><b>Growing demand:</b> By unlocking demand in the north, Canada will have</p> |                    |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                                                                   | Results / Outcomes |
|---|----------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                |                        | <p>access to increased domestic demand and a market that is less likely to be dependent on U.S. imports for supply of biofuels.</p> <p><b>Cost:</b><br/>Incentives will need to be long-lasting and reduce the cost of transportation . This policy is not anticipated to be as expensive as other production incentives due</p> |                    |

| # | Policy Options                                                                                                                                                                                    | Potential Action Areas                                                                                                                                                              | Considerations                                                                                                                                                                                                                                                                                       | Results / Outcomes                                                                                                                                                                                                                                                                       |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |                                                                                                                                                                                                   |                                                                                                                                                                                     | to its targeted nature.                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                          |
| 7 | <p>Support made-in-Canada supply chains to strengthen the resilience of the biofuels sector/ promote stability for Canadian feedstock producers.</p> <p>Support made-in-Canada supply chains.</p> | <p>Introduce domestic or regional (e.g., North American) feedstock sourcing requirements and/or incentives to ensure Canadian feedstocks <sup>Footnote 6</sup> are competitive.</p> | <p><b>Competition for feedstocks:</b> In Canada, there is no demonstrable link between increased biofuel production and increased food prices. However, fuel incentives should consider food availability and jurisdictions may need to mitigate concerns that increased biofuel production will</p> | <p><b>Impact:</b> Low</p> <p>Improved demand and stability could support further investment, achieving a more efficient economy of scale.</p> <p>Reduced cost difference between domestic and imported feedstocks.</p> <p>Increased investment in infrastructure and job creation in</p> |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                                                                                               | Results / Outcomes                                                                    |
|---|----------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|   |                |                        | <p>lead to increases in food prices.</p> <p><b>Trade risk:</b> Policies influencing trade flows could result in increased trade risks.</p> <p><b>International volatility:</b> Feedstocks are an important export for Canada and are vulnerable to tariffs resulting from geopolitical disputes. Stabilizing domestic demand could promote stability for</p> | <p>Canada for producing and processing domestic feedstocks e.g., canola crushers.</p> |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                   | Results / Outcomes |
|---|----------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                |                        | feedstock suppliers.<br><br><b>Cost:</b><br>Domestic feedstock requirements or incentives would need to be significant and long-lasting to be impactful for the biofuels sector. |                    |

### 3 Facilitating Investment and Improving Production Capacity and Efficiency

Canada is ranked as one of the world's top destinations for foreign direct investment (FDI) [Footnote7](#). FDI grows the biofuels sector by investing capital that enables producers to reach Final Investment Decisions. Investment, whether domestic or international, is attracted by policies that limit uncertainty, increase cost competitiveness and stabilize demand.

Governments can play a pivotal role in supporting new, long-term investments by improving policy certainty, promoting access to

data and analysis, de-risking projects, and funding projects of strategic value.

### Theme 3. Facilitating Investment and Improving Production Capacity and Efficiency

| # | Policy Options                                                                                                                         | Potential Action Areas                                                                                                                                                                                       | Considerations                                                                                                                                                                                                                                                  | Results / Outcomes                                                                                                                                                                                                                           |
|---|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8 | Improve existing facilities' ability to modernize, reduce carbon intensity, and increase production with new assets and technologies . | De-risk projects by allowing producers to leverage their capital investments through new or expanded investment tax credits and incentives, guaranteed loans, green and low-interest financing, and program- | <p><b>Targeted expansion:</b> By increasing production capacity of existing facilities, Canada is expediting growth. Further, small increases to capacity across the country avoids the volatility related to larger projects.</p> <p><b>Past programs:</b></p> | <p><b>Impact:</b> High</p> <p>Increases the efficiency and/or expands capacity of existing production and could reduce the risk of stranded infrastructure.</p> <p>Improves near-term fuel supply stability and reduces import exposure.</p> |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                                                                                          | Results / Outcomes |
|---|----------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                | based funding.         | <p>Leverage successes of previous fiscal policies and programs to effectively grow biofuels production.</p> <p><b>Retrofit and fuel upgrade support:</b><br/>Targeted support for retrofitting can update and restart idled facilities and help increase production capacity, including through co-processing.</p> <p><b>Cost:</b><br/>Depending on</p> |                    |

| # | Policy Options                                                                                                  | Potential Action Areas                                                                                                  | Considerations                                                                                                                                | Results / Outcomes                                                                                                                  |
|---|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
|   |                                                                                                                 |                                                                                                                         | the mechanism used, costs could be incurred either as foregone tax revenue or as direct funding, potentially into the medium term and beyond. |                                                                                                                                     |
| 9 | Support new biofuel production where anticipated demand exceeds current capacity – including liquid and gaseous | Implement or adapt policies that reduce capital investment barriers, including industrial zones, investment tax credits | <b>Expanding regional capacity:</b> This measure would support the establishment of new facilities to capitalize on emerging trade            | <b>Impact:</b> High<br>De-risks new projects, increases biofuel production capacity, reduces reliance on imports, and could benefit |

| # | Policy Options                        | Potential Action Areas                                                                                                                                              | Considerations                                                                                                                                                                                                                                                                                                                                    | Results / Outcomes      |
|---|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
|   | fuels and first-of-a-kind-facilities. | and funding for feasibility, Front-End Engineering Design (FEED) Studies, and Final Investment Decisions, as well as construction of biofuel production facilities. | <p>partnerships and fill in accessibility gaps.</p> <p><b>Cost:</b> Supports could span 5-10 years as projects of this nature have longer timelines. Costs are anticipated to be higher than supports for existing facilities due to scale.</p> <p><b>Reconciliation</b> : Policies could include a targeted stream to support Indigenous-led</p> | Indigenous communities. |

| #  | Policy Options                                              | Potential Action Areas                               | Considerations                                                                                                                                                                                                        | Results / Outcomes                                                    |
|----|-------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
|    |                                                             |                                                      | <p>or partnered biofuel projects.</p> <p><b>Project delivery:</b> Streamlined approvals within designated industrial zones may improve investment certainty and accelerate time-to-production for new facilities.</p> |                                                                       |
| 10 | Strengthen Canada's aviation fuel security through domestic | Advance a domestic SAF investment incentive program. | <b>Energy security:</b> In 2025, Canada imported 35% of its jet fuel and almost all its SAF. This                                                                                                                     | <b>Impact:</b> High Commercial-scale domestic SAF production by 2030, |

| # | Policy Options  | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                                                                  | Results / Outcomes                                                                   |
|---|-----------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|   | SAF production. |                        | <p>represents a significant energy risk as supply disruptions could limit air travel, impacting the proper functioning of the Canadian economy.</p> <p><b>A new industry:</b><br/>Global competition for SAF investment is accelerating, with U.S. production subsidies continuing and the U.K. implementing a SAF contract</p> | improving Canadian aviation fuel security and competitiveness in global SAF markets. |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                           | Results / Outcomes |
|---|----------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                |                        | <p>for difference program to secure its domestic supply.</p> <p>There are three proposed facilities in Canada nearing final investment decisions to produce one billion litres of SAF, representing approximately \$3 billion in investment and further potential economic benefits.</p> |                    |

| #  | Policy Options                                                                                                                 | Potential Action Areas                                                                                        | Considerations                                                                                                                                                                        | Results / Outcomes                                                                                                                                             |
|----|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                                                                                                                |                                                                                                               | <b>Cost:</b> More expensive than existing biofuel incentives, but with economic and security benefits expected to exceed costs to government.                                         |                                                                                                                                                                |
| 11 | Accelerate ongoing efforts associated with feedstock maps, inventories, and techno-economic information (e.g., forest biomass, | Development and maintenance of datasets and tools at the national, provincial and regional levels for biomass | <b>Information accessibility:</b> Canada can facilitate investment by increasing industry's access to quality data.<br><br><b>Long term:</b> This measure is less time-sensitive than | <b>Impact:</b> Low<br>Timely access to forest biomass, agricultural biomass, and organic waste feedstock information for investors and policy makers to inform |

| # | Policy Options                            | Potential Action Areas  | Considerations                                                                                                                                                                                                                                                                                                           | Results / Outcomes |
|---|-------------------------------------------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   | agricultural biomass, and organic waste). | availability and costs. | <p>operational and capital-focused options but could still lower the threshold for new investments in the sector and could be a valuable component of a long-term biofuels strategy.</p> <p><b>Cost:</b> Minimal costs to support increased accessibility of existing data. Additional minor investments would boost</p> | decision making.   |

| #      | Policy Options                                                                                         | Potential Action Areas                                                                                                                                                                              | Considerations                                                                                                                                                                                                                              | Results / Outcomes                                                                                             |
|--------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
|        |                                                                                                        |                                                                                                                                                                                                     | new data collection to provide consistent information at the national scale.                                                                                                                                                                |                                                                                                                |
| 1<br>2 | Strengthening FPT engagement with industry partners by developing shared resources regarding projects. | <p>Maintain a shared, evergreen collection of information and data of business value.</p> <p>This collection could be leveraged to improve the ability of industry aggregators and associations</p> | <p><b>Confidentiality:</b> Information resources shared among FPT partners must abide by any data limitations, including non-disclosure agreements and technological constraints.</p> <p><b>Government role:</b> In sharing information</p> | <p><b>Impact:</b> Low</p> <p>Help governments and industry partners attract capital for biofuels projects.</p> |

| # | Policy Options | Potential Action Areas                                                                           | Considerations                                                                                                                                                                    | Results / Outcomes |
|---|----------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                | to consolidate market information and better support project development and attract investment. | and data resources, governments would not encroach on the roles already occupied by private sector associations but would work to increase their impact in supporting the sector. |                    |

#### 4 Improving Infrastructure and Market Access

A public infrastructure system that improves value chain efficiency and increases market access and diversification will create new opportunities to grow the sector across the country. Canada's size requires a flexible approach that integrates both regional and national considerations.

With targeted fiscal and regulatory supports, Canada can increase market access for producers and unlock new value across the supply chain.

## Theme 4. Improving Infrastructure and Market Access

| #  | Policy Options                                                                                                                                                                                                                                            | Potential Action Areas                                                                                                                                  | Considerations                                                                                                                                                                                                                                                                                        | Results / Outcomes                                                                                                                            |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 13 | <p>Reduce operational expenditures caused by regulatory complexity and misalignment to increase competitiveness.</p> <p>Reduce operational expenditures caused by regulatory complexity and misalignment to increase competitiveness<br/>(continued).</p> | FPT collaboration to streamline and harmonize regulations, lifecycle analysis methods, carbon management systems, permitting and standards development. | <p><b>Reduced compliance burden:</b> Greater regulatory cooperation can reduce administrative and compliance costs for producers and improve market access.</p> <p><b>Public outcomes:</b> Cooperation is not intended to create barriers preventing jurisdictions from meeting their core policy</p> | <p><b>Impact:</b> High</p> <p>Regulatory cooperation increases producers' market access, allowing new demand to support increased growth.</p> |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                                                                            | Results / Outcomes |
|---|----------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                |                        | <p>objectives (e.g., electrification, emissions reduction).</p> <p><b>Roles and responsibilities:</b> Clarifying responsibility and rules for grid connection, including interconnection costs, technical standards, etc. could also reduce barriers to market access.</p> <p><b>Lifecycle analysis:</b> Once more data is available,</p> |                    |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                                                                     | Results / Outcomes |
|---|----------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                |                        | <p>farm-level practices could be considered to further incentivize CI reductions of biofuels feedstocks.</p> <p><b>Permitting:</b><br/>Streamlined permitting and faster approvals reduce project delays and lower financial risks.</p> <p><b>Cost:</b><br/>Alignment is a low-cost option to promote a more efficient market.</p> |                    |

| #  | Policy Options                                                                                                                                                     | Potential Action Areas                                                                                                                                                                                    | Considerations                                                                                                                                                                                                                                                                                                                     | Results / Outcomes                                                                                                                                                                                                                                        |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14 | Improve strategic access to biofuels facing transportation, point of access, and enabling infrastructure barriers (e.g., renewable diesel, renewable natural gas). | Invest in infrastructure to increase fuel accessibility through investment tax credits (ITCs) or program-based funding, with targeted incentives to support Indigenous-led or partnered biofuel projects. | <p><b>Fuel-specific impacts:</b><br/>Infrastructure gaps are a key barrier to RNG and low carbon marine fuel access. Addressing the gap could quickly improve accessibility and increase market demand, growing the sector.</p> <p><b>Regional considerations:</b><br/>Infrastructure investments will be most impactful where</p> | <p><b>Impact:</b><br/>High</p> <p>Reduces infrastructure barriers, including blending infrastructure, fuel distribution and end-user access (e.g., port-side storage and bunkering for marine fuels), improving market access, and supporting growth.</p> |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                                                                               | Results / Outcomes |
|---|----------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                |                        | <p>increased use of gaseous biofuels aligns with jurisdictional priorities. The condition of existing infrastructure may also be a limiting factor.</p> <p><b>Infrastructure corridors:</b><br/>Where there is a geographical gap between supply and demand centres, infrastructure corridors may help unlock competitive market access.</p> |                    |

| # | Policy Options | Potential Action Areas | Considerations                                                                                                                                                                                                                                                                                                                                                    | Results / Outcomes |
|---|----------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|   |                |                        | <p><b>Cost:</b> To manage costs, supports could be tailored by infrastructure type (e.g., transportation infrastructure will cost more than point-of-access and enabling infrastructure).</p> <p><b>Policy dependency:</b> Infrastructure investments are most impactful where production cost is already low enough to enable positive operating margins and</p> |                    |

| #  | Policy Options                                                                                                                                                                                                          | Potential Action Areas                                                                                                                                                                                                               | Considerations                                                                                                                                                                                                                                                                                         | Results / Outcomes                                                                                                                                                                                                                                        |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                                                                                                                                                                                                         |                                                                                                                                                                                                                                      | compete with substitutes.                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                           |
| 15 | Improve existing infrastructure by consolidating feedstock supply and co-locating biofuel production with existing and / or new industries to reduce feedstock costs and improve the price competitiveness of biofuels. | <p>Funding or investment tax credits for new facilities and equipment that sort, store, process, and upgrade biomass.</p> <p>Funding or investment tax credits for the expansion of forest sector facilities that enable the co-</p> | <p><b>Value chain efficiencies:</b><br/>Cost reductions resulting from improved logistics drive down the price of biofuels without lowering the value of feedstocks, increasing the GDP contribution of the value chain.</p> <p><b>Multi-generational support:</b><br/>Improving the efficiency of</p> | <p><b>Impact:</b><br/>Medium</p> <p>Enable pooling of biomass from multiple sources, improving stability of supply, both for volumes and quality.</p> <p>Improved feedstock supply reliability and reduced transportation costs.</p> <p>Bolstered and</p> |

| # | Policy Options | Potential Action Areas          | Considerations                                                                                                                                                                                                                                                                                                               | Results / Outcomes                |
|---|----------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
|   |                | location of biofuel production. | <p>forestry feedstock supply chains will support co-processing, other bioenergy products, and advanced biofuels, securing future growth for the sector.</p> <p><b>Cost:</b> Costs would be higher in the early years of the program, when the larger sectoral change occurs but are expected to continue at a lower rate</p> | stabilized rural economic output. |

| # | Policy Options | Potential Action Areas | Considerations                | Results / Outcomes |
|---|----------------|------------------------|-------------------------------|--------------------|
|   |                |                        | over the life of the program. |                    |

## Path Forward

Canada's biofuels sector has many of the fundamentals to enable growth, with opportunities to strengthen energy security, expand economic and employment opportunities, reduce emissions, and increase value for Canada's feedstock providers. New action that takes regional characteristics into account could further strengthen demand, attract investment, improve competitiveness, and expand market access.

The policy options identified in this report provide a foundation for Canadian governments to support a more competitive and resilient sector. A coordinated suite of policies informed by this work has the potential to enable Canada to produce 60% of the liquid and gaseous biofuels it consumes. This would reduce reliance on imports, strengthen domestic supply resilience amidst global energy market uncertainty, and position Canada as a competitive and reliable supplier of low-carbon fuels.

FPT governments will continue to work together to advance priority measures, support investments and market developments, and explore opportunities to accelerate the deployment of next-generation biofuels, recognizing the importance of timely action in a rapidly evolving global market.

## Annex 1: FPT Biofuels Working Group

The Federal-Provincial-Territorial (FPT) Biofuels Working Group launched in October 2025, following the Prime Minister's September 2025 announcement, committing to work with provinces and territories on a longer-term approach to grow Canada's low-carbon fuels industry.

Its mandate is to develop a shared long-term vision for the biofuels sector by identifying FPT measures that advance the competitiveness, growth, and resiliency of Canada's biofuels sector, while maximizing economic and environmental benefits across the value chain, and minimizing fuel cost increases for consumers.

The Working Group includes representatives from federal, provincial, and territorial governments, with a mix of agriculture, energy/natural resources, and environment ministries. British Columbia serves as co-chair.

The Working Group is composed of three sub-groups that focus on different aspects of the biofuels value chain, and led the detailed analysis informing this report:

- **Feedstock subgroup** – utilizing agricultural and forest feedstocks to support biofuel production while also providing benefits across the full value chain;
- **Supply and demand subgroup** – growing biofuel production and strengthening demand signals; and
- **Gaseous biofuels subgroup** – increasing the competitiveness of renewable natural gas, biogas and renewable propane across the value chain.

From January to May 2026, FPT subgroups met on a bi-weekly basis to identify key barriers and opportunities, and to discuss policy options. This work was informed by engagement with industry stakeholders across the value chain, providing practical insights on market conditions, investment challenges, and regional considerations.

NRCan complemented this work with macroeconomic analysis and cashflow modelling informed by close collaboration with Canadian producers to assess sector impacts and inform the development and evaluation of policy options. The Working Group's mandate is ongoing and will continue its work after EMMC in June, with an expanded focus on exploring measures that can support the development and deployment of emerging biofuels production pathways.

## **Annex 2: Cashflow Analysis**

This report presents policy options to improve the competitiveness of Canada's biofuels sector. These options can be deployed with varying levels of ambition and as part of a broad assortment of policy suites. To better inform how governments can most effectively advance the needs of the sector, NRCan developed cashflow models that reflect the impacts of different policy measures on a representative producer.

These models were developed with support from a vast range of sources including stakeholder submitted cashflow models, CANMET labs material, techno-economic analysis models, scientific journal articles, previous sector analysis, Environment and Climate Change Canada predefined default pathways, and

fuel, feedstock, energy and other input prices across a variety of sources.

This sourced material fed into model parameter variables and were generalized to protect stakeholders but also selected to represent confidence in these input values. These inputs were then fed into custom cashflow models for each respective biofuel analyzed with various toggles to fine tune parameters for scenarios and specific policy measure options.

The result is a set of fuel-specific models that are based on medium sized representative facilities in central and western Canada over a 30-year project lifespan. These can then be used to show what the cashflow and net present value (NPV) of such a representative project is over its lifespan, as well as the internal rate of return, as well as the return to government at the federal and provincial levels.

The model also provides what is needed for a 30-year project to reach target Internal Rates of Return (IRRs) and breaks this down in terms of:

- \$/L needed for liquid fuels and \$/GJ for RNG
- Total up-front capital needed
- Total up-front loan needed, conditional on repayment commencing upon project commission start date and repayable over 10 years at a set rate

These results can help inform FPT policy proposals, tailored to the needs of the sector by fine-tuning parameters and customizing scenarios to assess where projects may face the greatest strains as well as the greatest benefits. The models are intended to assess project-level economics and do not evaluate broader economic impacts. Assessing the full costs and benefits of specific

policy or regulatory actions, including impacts on affordability, consumers and international trade, would require further analysis.

## **Annex 3: Fuel Considerations for a Competitive Sector**

Canada produces many types of biofuels. This report examines the barriers, opportunities and regional considerations for bio-based diesel (BBD), ethanol, co-processed fuels, sustainable aviation fuel (SAF), and gaseous biofuels such as renewable natural gas (RNG), biogas, and renewable propane, including arctic-grade biofuels.

### **Bio-based diesel**

BBD is a fuel type is used to decarbonize Canada's diesel and light fuel oil pool. It includes biodiesel, which is produced from vegetable oils, animal fats, or waste oils and typically blended at low levels due to compatibility limits and low-temperature operation, and renewable diesel, which is almost identical to conventional diesel and can be used as a drop-in fuel or blended to a much higher level than biodiesel and can be produced to arctic-grade specifications. In 2025, Canada produced 1063 ML of BBD or approximately 66% of the BBD it consumed, and BBD production contributed \$3.5B to GDP.

2030 BBD demand is projected at ~3400 ML. If production does not increase from 2025 levels Canada will rely on imports to meet 67% of demand. However, Canada has added over 1 BL of RD capacity since 2025, and new facilities are ramping up production.

Assuming historical capacity utilization, existing capacity could support up to 77% of demand by 2030.

BBD faces two key barriers. First, technological barriers limit the extent to which it can be blended with conventional diesel in farming, heavy machinery, on-road transportation, and power generation. Second, new uses for BBD, such as decarbonizing marine, rail, and on-road transportation, are limited by infrastructure gaps.

There are significant opportunities, especially for renewable diesel in the short and medium term, including expanding access to marine transportation markets - particularly in the Great Lakes St. Lawrence Seaway where B100 biodiesel is being used on numerous vessels by a major carrier - and increasing production of arctic-grade fuel to promote arctic sovereignty and energy resilience. Current biodiesel blends can be increased in warmer regions and seasons, and with the use of additives.

## **Ethanol**

Ethanol is a transportation fuel primarily used to lower the cost and GHG emissions of gasoline. It also plays a critical role as an oxygenate, increasing octane, improving combustion efficiency, and replacing more harmful and expensive additives. It is valuable not only for its role in enabling Canada to meet its obligations under the CFR, but also to keep fuel affordable and support a functional transportation system. In 2025, Canada produced 1780ML of ethanol or 40% of the ethanol it consumed, contributing \$2.4B to GDP. Higher ethanol blends such as E15 can reduce the retail cost of finished gasoline.

2030 ethanol demand is projected at 5080 ML. If production is not increased from 2025 levels Canada will rely on imports to meet

65% of demand by 2030. Canadian ethanol capacity has not increased in recent years due to feedstock limitations and unfavourable project economics. Ethanol production capacity is projected to remain mostly stagnant in the coming years, as it competes directly with highly subsidized U.S. ethanol, making operational cost competitiveness its greatest challenge. While access to low-cost ethanol supports affordability, Canada's increasing reliance on the U.S. limits domestic sector growth and creates significant energy and trade risks.

Ontario is Canada's main source of ethanol, as it is typically made from corn, but wheat, barley, and sweet beets can also be used at added cost. Increased ethanol production would require either utilizing Canada's 2.8MT of corn exports or increasing reliance on imports to meet new feedstock demand. The U.S.'s recent announcement to introduce measures in 2028 that halve the value of Renewable Identification Number credits for biofuels produced with non-U.S. feedstocks may incentivize Canadian corn growers to seek domestic offtake and help to address the feedstock gap. Strengthening Canadian biofuel policy measures such as domestic content requirements or more competitive incentives could also close the gap.

### **Co-processed Fuels**

Co-processed fuels are produced by processing biogenic feedstocks (such as vegetable oils, animal fats or waste oils) and bio-crude produced from forest biomass, with crude oil or intermediate hydrocarbons in existing petroleum refiners. This allows the production of diesel, gasoline, and jet fuel with a lower CI in existing facilities.

Co-processing is an emerging production pathway in Canada. While production volumes are limited and not well tracked, it offers a lower cost, near-term option to increase low-carbon fuel supply using existing infrastructure. Many Canadian refiners are interested in co-processing as a cost-effective solution to reducing the carbon intensity of liquid fuels given that it leverages existing assets.

Key barriers include technical and operational limits on the proportion of biogenic feedstock that can be processed without modifying refinery equipment or affecting product quality, and policy uncertainty around carbon accounting, and access to Canadian testing facilities to verify renewable content.

Co-processed fuels support incremental emissions reductions at relatively low capital cost and can help build supply chains for advanced biofuels. Refineries produce co-processed renewable gasoline, naphtha, diesel and jet fuel. Other provinces with existing refining capacity, such as Alberta, Saskatchewan, Ontario, Québec, and New Brunswick, are best positioned to adopt co-processing in the near term. However, the scale and type of co-processing opportunities vary depending on refinery complexity and access to feedstock supply chains. In addition, converting a refinery to co-processing requires modifications that can only be made during a turnaround, and refineries typically schedule major turnarounds about once every five years.

### **Sustainable Aviation Fuel**

SAF is internationally recognized as an important component in reducing the GHG emissions of the aviation sector, as approved pathways under ASTM International standards are currently certified for blending with conventional jet fuel up to 50% in

existing engines, with industry efforts underway to expand certification to higher blend levels. SAF has significant strategic importance as Canada relies on imports for 35% of its jet fuel (2025). Any disruption in its supply would disrupt Canada's economy in a way that could not be quickly addressed.

Despite its strategic value, there is currently no sustained commercial production of SAF in Canada due to its high cost of production and limited domestic and international demand at current prices. The economic benefit of a domestic SAF industry could be significant in the medium term, in some scenarios contributing \$1 billion a year to GDP. These benefits are expected to grow as global aviation continues to decarbonize.

Furthermore, SAF competes with other renewable fuels such as renewable diesel. The Hydrotreated Esters and Fatty Acids (HEFA) pathway produces both renewable diesel and SAF, and additional investments in infrastructure and processing can maximize the SAF fraction beyond what is obtained under typical conditions. As such, the economic viability of SAF does not only require it to be cost-competitive with its fossil counterparts; it must also compete with renewable diesel, which utilizes the same feedstocks and much of the same infrastructure.

SAF is not competitive in the current policy landscape. The SAF market and production potential vary considerably due to regional characteristics. Depending on the feedstock and region in which it is produced, SAF could supply both domestic and international markets. The Maritimes' abundant forestry feedstocks and Ontario's underutilized forest feedstock could enable them to benefit from the EU's strict SAF policies. In BC, SAF production will initially rely on canola feedstocks, though forest feedstocks have strong potential. In Alberta, SAF development

could be supported by strong agricultural (especially canola) and forestry feedstock availability, potential access to low-carbon hydrogen, Carbon Capture, Utilization, and Storage (CCUS) infrastructure, and existing refining infrastructure.

The International Energy Agency projects that 75% of new biofuels demand over the next 5 years will come from SAF, but the industry is still getting established. SAF facilities have been proposed in several provinces – with targeted incentive structures, Canada could be poised to become a leader in SAF production.

### **Gaseous biofuels**

Gaseous biofuels are used for heating, electricity and transportation, providing flexible pathways to reduce emissions in multiple sectors. This report includes biogas and renewable natural gas (RNG), which are produced from organic waste streams, including from farm-based facilities, wastewater treatment plants and landfills, and renewable propane, which is chemically identical to conventional propane and is often a byproduct of renewable diesel production.

According to the Canadian Biogas Association (CBA), in 2024, Canada produced the energy equivalent of 32.4 PJ (850 million cubic metres of methane) of RNG and biogas from 292 facilities. The CBA reports 26 proposed projects that could increase domestic production of biogas and RNG by 7 PJ by 2027 and a further 20 PJ by 2028 and beyond.

The gaseous sector faces several key challenges to scaling production. Canada's regionalized gas infrastructure and localized feedstocks limit market integration, while high upfront project and operating costs and uncertain long-term demand create barriers to investment. Canadian producers also compete with

U.S. policy frameworks that offer long-term, bankable incentives, making cost competitiveness a key hurdle.

Despite these constraints, targeted support for feedstock aggregation, infrastructure access, and stable policy signals could unlock growth, particularly in regions with strong organic waste availability. Expanding gaseous biofuels could reduce methane emissions, support the circular economy, divert waste from landfills, and provide new revenue streams for agricultural, forestry, and municipal waste sectors, while supporting emission reductions across end-use sectors.

## **Annex 4: Scan of Existing Federal, Provincial, and Territorial Policies and Programs Supporting Biofuels**

This Annex provides a preliminary overview of the types of policy measures currently in place to sustain, grow, and enhance the resilience of Canada's liquid and gaseous biofuels sectors. Table 2 outlines five categories of policy measures and provides a comparative overview of where these measures are currently in place across jurisdictions (indicated by 'Y') and the segment of the value-chain they support – feedstocks, supply/production, demand/end-use, general (general refers to policy measures that provide broad sector support).

Research, development and demonstration measures were not included, as they were out of scope for the report.

**Table 2: Overview of existing measures across jurisdictions and value-chain segments**



[illegible]

[illegible]

| EXISTING<br>MEASURES | G<br>C                                                | B<br>C | A<br>B | S<br>K | M<br>B | O<br>N | Q<br>C | N<br>L | N<br>B | N<br>S | P<br>E | Y<br>K | N<br>T | N<br>U |
|----------------------|-------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Feedstock            |                                                       |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Supply               |                                                       | Y      |        |        | Y      | Y      | Y      |        |        |        |        |        |        |        |
| Demand               |                                                       |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Gaseous              |                                                       |        |        |        |        |        |        |        |        |        |        |        |        |        |
| General              | Regulatory Reconciliation and Cooperation Table (RCT) |        |        |        |        |        |        |        |        |        |        |        |        |        |

## Footnotes

### Footnote 1

NRCan internal analysis

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### Footnote 2

ECCC internal reporting

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### Footnote 3

[Monthly Renewable Fuel and Hydrogen Survey](#)

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### Footnote 4

Canadian Biogas Association

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**Footnote 5**

ECCC internal reporting

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**Footnote 6**

Policy option 7 defines ‘feedstock’ as any imported biomass to be used for biofuels, including agricultural, forestry, and waste products.

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**Footnote 7**

The *2026 Kearney FDI Confidence Index* ranks Canada 2nd in the world at attracting foreign direct investment for the 2nd year in a row.