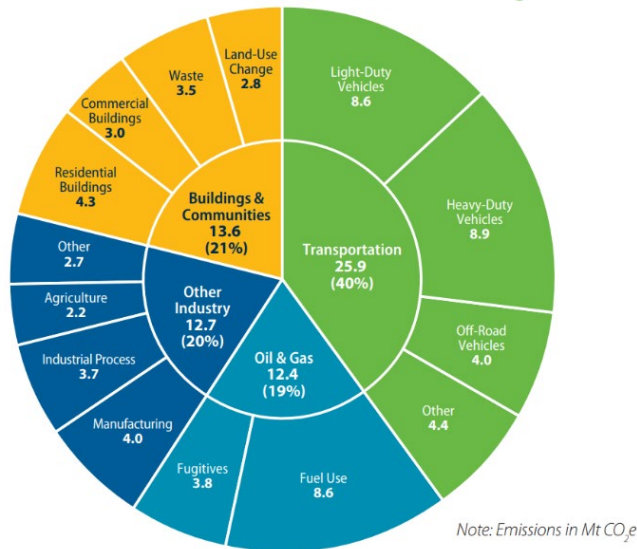




## Background – Initiative Agreement Program

Transportation is the single largest source of greenhouse gas (GHG) emissions in British Columbia (B.C.), accounting for approximately 40% of the annual total. Actions that reduce these emissions have a wide

B.C.'s 2020 Gross Emissions by Sector – 64.6 Mt CO<sub>2</sub>e



Note: Emissions in Mt CO<sub>2</sub>e

\*2022 Climate Change Accountability Report

range of benefits, from cleaner air and less congestion to better health, good jobs, and economic development. To decarbonize our economy and accelerate the shift to clean technologies in the transportation sector, we need to use energy more efficiently and replace fossil fuels with low carbon energy, including more clean electricity, renewable natural gas, low carbon hydrogen and liquid biofuels. One of the most effective measures to date for reducing GHG emissions is the Low Carbon Fuel Standard (LCFS). Under the LCFS, the Initiative Agreement program plays a crucial role in laying the groundwork for long-term compliance pathways, reducing GHG emissions, and contributing to the success of the LCFS.

An Initiative Agreement is a formal agreement between an organization and the Director under the LCFS for undertaking actions that promote innovation, diversity, and greater uptake of low carbon fuels. Initiative Agreements incent early actions that are not otherwise economically viable and help create future pathways for compliance.

## Credits issued through Initiative Agreements

The LCFS credits awarded under an Initiative Agreements are indistinguishable from other credits under the LCFS and, as such, may be used to meet compliance obligations or may be traded with other suppliers to offset project costs. Initiative Agreements are performance-based and provide credit for the achievement of project milestones. The credit pool available to Initiative Agreements is up to 25% of the previous year's total debits minus the credits already committed to agreements for the compliance period. When a project milestone is not fulfilled, the project may be cancelled and allocated credits released back into the credit pool.

The table below shows the number of credits allocated to Initiative Agreements in each year, and the number of credits issued for the completion of project milestones. Many of the projects supported by Initiative Agreements are multi-year initiatives that receive credit for completion of project milestones over multiple years.

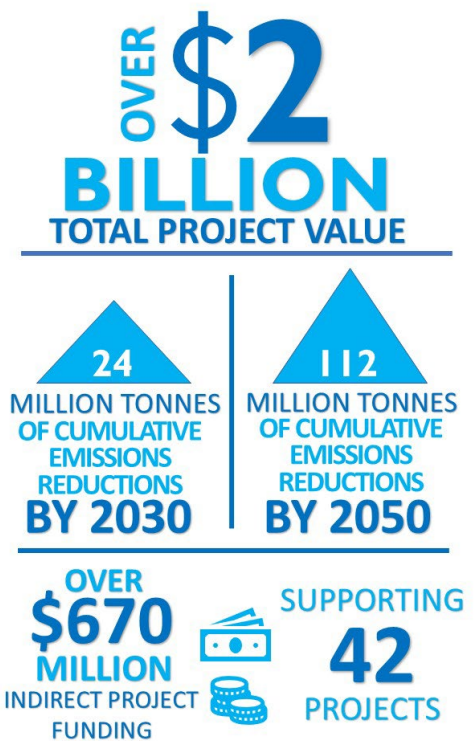


## Projects Supported

Since its inception in 2014, the Initiative Agreement program has been successful in accelerating market transformation in the B.C. fuel sector. It has been critical to suppliers for helping mitigate project risk and has led to actions occurring sooner than they would have without the support. In many cases, major initiatives would not have occurred without the support of Initiative Agreements. Since 2014, 42 projects have been awarded over 2 million credits. Despite the slowdown in overall economic activity as a result of the COVID-19 pandemic, fuel suppliers indicated that Initiative Agreements continued to incentivise investment in low carbon fuels, further demonstrating their effectiveness at advancing market transformation and importance in mitigating risk and uncertainty.

Since 2020, 22 new Initiative Agreements have been signed with 13 different fuel suppliers that will stimulate over \$2 billion dollars of investment in low carbon fuels over the next five years, with \$1.45 billion of these investments located in B.C. If successful, the projects will create new, long-term compliance pathways under the LCFS.

The following table lists projects supported under Initiative Agreements in the year that they were first signed.



Organization	Project Description	Status	Anticipated Credit Award*
<b>2020 Program Year</b>			
Arbios Biotech Canada Limited Partnership	Construction and operation of a biomass-to-liquids facility to produce biocrude using second-generation renewable feedstocks	Underway	328,905
BC Transit	Deployment of light-duty battery electric buses and associated charging infrastructure	Underway	23,354
	Deployment of heavy-duty battery electric buses and associated charging infrastructure	Underway	103,585
Ergo Eco Solutions Inc.	Construction and operation of a biodiesel production facility	Underway	5,303
	Deployment of a heavy-duty hydrogen fuelling station designed to support commercial fleet(s)	Underway	10,500



**Ministry of Energy and Climate Solutions**

*Issued: June 2016  
Revised: June 2024*

Low Carbon Fuels Act

**Projects supported under Initiative Agreements**

**Information Bulletin RLCF-014**

HTEC Hydrogen Technology & Energy Corporation	Deployment of a combination light-duty and heavy-duty hydrogen fuelling station designed to demonstrate the commercial viability of hydrogen fuel cell port vehicles	Underway	28,190
	Development, construction, and operation of a by-product hydrogen production facility	Underway	75,100
HEG Holding Corp./Hydra Energy Canada Corp.	Deployment of a heavy-duty hydrogen fuelling station designed to support commercial fleet(s)	Underway	4,950
Parkland Refining (B.C.) LTD	R&D and infrastructure improvements to enable diversification and increased throughput of renewable feedstocks for co-processing	Underway	151,064
	Upgrades and development to expand co-processing capabilities at refinery	Underway	62,145
	HDRD production facility and related infrastructure	Cancelled	5,349**
BC Ferries	Electrification of marine transportation vessels and related infrastructure upgrades	Underway	81,444
Seaspan Ferries Corporation	Electrification of marine transportation vessels and related infrastructure upgrades	Underway	14,121
	Deployment of high-level biodiesel blends in marine transportation vessels	Underway	4,669
	Electrification of marine terminal tractors and associated charging infrastructure	Underway	6,143
Shell Canada Products	Scrap-It incentive for the replacement of an older internal combustion engine vehicle with an electric vehicle or a hydrogen fuel cell vehicle	Completed	58,433
Tidewater Renewables Ltd.	Testing and production of conventional gasoline and diesel with co-processed renewable content in a Fluidic Catalytic Cracking (FCC) unit	Underway	9,134
	HDRD production facility and related infrastructure	Underway	415,750
South Coast British Columbia Transportation Authority (TransLink)	Deployment of electric vehicle charging infrastructure to support adoption of heavy-duty battery electric buses	Underway	44,200
University of British Columbia	Development of a city-scale testbed for integrated energy systems, including the construction and operation of a solar array, electric vehicle charging, low carbon hydrogen fuel production, and a combination light- and heavy-duty hydrogen fuelling station	Underway	13,075
Undisclosed	Deployment of light-duty hydrogen fuelling infrastructure and the production of low carbon intensity hydrogen	Underway	4,000



**Ministry of Energy and Climate Solutions**

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Low Carbon Fuels Act

**Projects supported under Initiative Agreements**

**Information Bulletin RLCF-014**

<i>Undisclosed</i>	HDRD production facility and related infrastructure	Underway	484,416
<b>2019 Program Year</b>			
Federated Co-operatives Ltd.	Infrastructure to store, blend, and support distribution of renewable fuel blends at retail locations	Underway	72,450
Tidewater Midstream and Infrastructure Ltd	Testing and production of conventional gasoline and diesel with co processed renewable content in a Distillate Hydrotreater (DHT) unit, and development of second-generation biocrude feedstock	Completed	105,300
<b>2018 Program Year</b>			
BC Hydro	Incentives for electric vehicle charging infrastructure in multi-unit residential buildings and municipal/commercial fleets	Cancelled	-
Federated Co-operatives Ltd.	Deployment of high-level renewable fuel blends (E85, HDRD) at retail locations	Underway	40,689
Husky Oil Operations Ltd.	Testing and retrofit of refinery capabilities for compatibility with co-processed renewable content	Completed	14,600
Imperial Oil	Testing of the production of conventional gasoline and diesel with co-processed renewable content	Completed	24,000
Parkland Refining (B.C.) LTD	Testing and development of second-generation renewable feedstocks for co-processing	Underway	130,000
Shell Canada Products	Deployment of electric vehicle charging and hydrogen fuelling infrastructure at a retail location	Cancelled	-
	Incentives for electric vehicle charging infrastructure in residential homes	Completed	40,000
Suncor Energy Products Partnership	Infrastructure upgrades to enable the blending and distribution of ethanol on Vancouver Island	Completed	12,300
	Deployment of electric vehicle charging infrastructure at retail locations	Underway	39,692
<i>Undisclosed</i>	Renewable fuel production project	Cancelled	5,500**
<b>2017 Program Year</b>			
Cowichan Bio-Diesel Co-operative	Deployment of mid-level biodiesel blends (B10-B20)	Completed	1,574
Elbow River Marketing Ltd.	Testing and supply of biodiesel blends in winter operability zones	Underway	2,500
Federated Co-operatives Ltd.	Deployment of high-level renewable fuel blends (E85, HDRD) at retail locations	Underway	3,500
	Testing and supply of biodiesel blends in winter operability zones	Cancelled	1,650**



**Ministry of Energy and Climate Solutions**

*Issued: June 2016  
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Low Carbon Fuels Act

**Projects supported under Initiative Agreements**

**Information Bulletin RLCF-014**

Husky Oil Operations Ltd.	Deployment of ethanol blends (E15) and biodiesel (B20) at retail locations	Cancelled	100**
	Testing and supply of biodiesel blends in winter operability zones	Completed	3,000
<b>2016 Program Year</b>			
Parkland Refining (B.C.) LTD	Testing and production of conventional gasoline and diesel with co-processed renewable content in a Fluidic Catalytic Cracking (FCC) unit	Underway	220,000
	Deployment of mid-level biodiesel blends (B10-B20)	Underway	25,000
Shell Canada Products	Scrap-It incentive for the replacement of an older internal combustion engine vehicle with an electric vehicle or a hydrogen fuel cell vehicle	Completed	443,362
<b>2015 Program Year</b>			
Chevron Canada Ltd	Testing bio-oil for compatibility with refinery infrastructure to produce conventional gasoline and diesel with renewable content	Completed	60,000
	Use of renewable natural gas rather than conventional natural gas to manufacture petroleum gasoline and diesel	Cancelled	-
Eco-Options Energy Cooperative	Retrofitting vehicles for compatibility with propane and supplying propane to retrofitted vehicles	Cancelled	267**
HTEC Hydrogen Technology & Energy Corporation	Deployment of light-duty hydrogen fuelling infrastructure and the production of low carbon intensity hydrogen	Underway	155,500
<i>Undisclosed</i>	Development and deployment of new fuel technology to produce renewable diesel	Cancelled	-
<b>2014 Program Year</b>			
Chevron Canada Ltd	Infrastructure to enable the supply of ethanol-blended gasoline to Vancouver Island	Completed	120,000
Shell Canada Products	Scrap-It incentive for the replacement of an older internal combustion engine vehicle with an electric vehicle or a hydrogen fuel cell vehicle	Completed	84,450
Suncor Energy Products Partnership	Infrastructure upgrades to enable the transfer of ethanol from marine transport for blending and distribution	Completed	7,583
Consolidated Biofuels Ltd.	Construction of a bio-fuel storage facility	Cancelled	-

\* Total quantity of credits anticipated to be awarded (all years).

\*\* References that the amount was awarded prior to project cancellation



**Ministry of Energy and Climate Solutions**

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Low Carbon Fuels Act

**Projects supported under Initiative Agreements**

**Information Bulletin RLCF-014**

## Need more information?

Please visit the [Low Carbon Fuels website](#), the [Initiative Agreement website](#), or email us at [lcfs@gov.bc.ca](mailto:lcfs@gov.bc.ca) for more information.

This information is for your convenience and guidance only and does not replace or constitute legal advice. It is recommended that parties who may be to the Low Carbon Fuel Standard to seek independent legal advice to confirm their status, legal obligations, and opportunities. The *Low Carbon Fuels Act* and its general and technical regulations can be found on the internet at: <http://www.bclaws.ca>.