

Issued: June 2016 Revised: August 2023 Renewable and Low Carbon Fuel Requirements Regulation

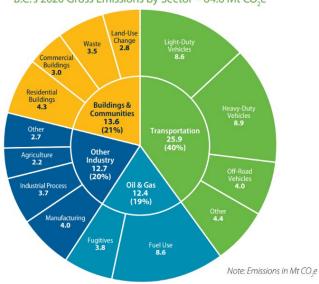
Projects supported under Part 3 Agreements

Information Bulletin RLCF-014

Background – Part 3 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 CO₂e



*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 Part 3 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.

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A Part 3 Agreement is an agreement between a Part 3 fuel supplier and the Director under the *Greenhouse Gas Reduction (Renewable and Low Carbon Fuel Requirements) Act* for undertaking actions that promote innovation, diversity, and greater uptake of low carbon fuels. Part 3 Agreements incent early actions that are not otherwise economically viable and help create future pathways for compliance.

Credits issued through Part 3 Agreements

Credits issued under Part 3 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. Part 3 Agreements are performance-based and provide credit for the achievement of project milestones. The credit pool available to Part 3 Agreements is up to 25% of the previous year's total debits. 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 Part 3 Agreements in each year, and the number of credits issued for the completion of project milestones. Many of the projects supported by Part 3 Agreements are multi-year initiatives that receive credit for completion of project milestones over multiple years.



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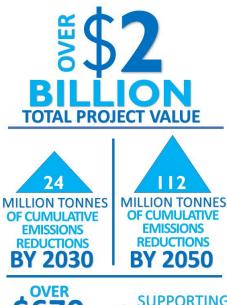
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| <u>Year</u> | Number of Credits allocated through Part 3 Agreements in a given compliance period | Number of Credits issued through Part 3 Agreements in a given compliance period |
|-------------|---|--|
| 2014 | 98,118 | - |
| 2015 | 89,086 | 66,380 |
| 2016 | 206,651 | 166,618 |
| 2017 | 227,756 | 97,833 |
| 2018 | 334,896 | 200,592 |
| 2019 | 465,858 | 231,774 |
| 2020 | 509,473 | 188,103 |
| 2021 | 415,789 | 475,236 |
| 2022 | 314,607 | 279,985 |

Projects Supported

Since its inception in 2014, the Part 3 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 Part 3 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 Part 3 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 Part 3 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.



SUPPORTING
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PROJECTS

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The following table lists projects supported under Part 3 Agreements in the year that they were first signed.

| Part 3 Fuel Supplier | Project Description | Status | Anticipated Credit Award* | | |
|---|--|-----------|------------------------------|--|--|
| 2020 Program Year | | | | | |
| 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 | | |
| | Deployment of light-duty battery electric buses and associated charging infrastructure | Underway | 23,354 | | |
| BC Transit | 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 | | |
| 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 | | |
| | R&D and infrastructure improvements to enable diversification and increased throughput of renewable feedstocks for co-processing | Underway | 151,064 | | |
| Parkland Refining (B.C.) LTD | 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 | Electrification of marine transportation vessels and related infrastructure upgrades | Underway | 14,121 | | |
| Corporation | Deployment of high-level biodiesel blends in marine transportation vessels | Underway | 4,669 | | |



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| | 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 | 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 |
| Undisclosed | HDRD production facility and related infrastructure | Underway | 484,416 |
| | 2019 Program Year | | |
| 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 | Underway | 105,300 |
| | 2018 Program Year | | |
| 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 coprocessed 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 |



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| 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 |
| 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 |
| Renewable fuel production project | Cancelled | 5,500** |
| 2017 Program Year | 1 | |
| Deployment of mid-level biodiesel blends (B10-B20) | Completed | 1,574 |
| Testing and supply of biodiesel blends in winter operability zones | Underway | 2,500 |
| 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** |
| 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 |
| 2016 Program Year | | |
| 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 |
| 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 |
| 2015 Program Year | | |
| 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 | - |
| Retrofitting vehicles for compatibility with propane and supplying propane to retrofitted vehicles | Cancelled | 267** |
| | infrastructure at a retail location Incentives for electric vehicle charging infrastructure in residential homes Infrastructure upgrades to enable the blending and distribution of ethanol on Vancouver Island Deployment of electric vehicle charging infrastructure at retail locations Renewable fuel production project 2017 Program Year Deployment of mid-level biodiesel blends (B10-B20) Testing and supply of biodiesel blends in winter operability zones Deployment of high-level renewable fuel blends (E85, HDRD) at retail locations Testing and supply of biodiesel blends in winter operability zones Deployment of ethanol blends (E15) and biodiesel (B20) at retail locations Testing and supply of biodiesel blends in winter operability zones 2016 Program Year Testing and production of conventional gasoline and diesel with coprocessed renewable content in a Fluidic Catalytic Cracking (FCC) unit Deployment of mid-level biodiesel blends (B10-B20) Scrap-It incentive for the replacement of an older internal combustion engine vehicle with an electric vehicle or a hydrogen fuel cell vehicle 2015 Program Year Testing bio-oil for compatibility with refinery infrastructure to produce conventional gasoline and diesel with renewable content Use of renewable natural gas rather than conventional natural gas to manufacture petroleum gasoline and diesel Retrofitting vehicles for compatibility with propane and supplying | infrastructure at a retail location Incentives for electric vehicle charging infrastructure in residential homes Infrastructure upgrades to enable the blending and distribution of ethanol on Vancouver Island Deployment of electric vehicle charging infrastructure at retail locations Renewable fuel production project Cancelled 2017 Program Year Deployment of mid-level biodiesel blends (B10-B20) Completed Testing and supply of biodiesel blends in winter operability zones Underway Deployment of high-level renewable fuel blends (E85, HDRD) at retail locations Testing and supply of biodiesel blends in winter operability zones Cancelled Deployment of ethanol blends (E15) and biodiesel (B20) at retail locations Testing and supply of biodiesel blends in winter operability zones Cancelled locations Testing and production of conventional gasoline and diesel with coprocessed renewable content in a Fluidic Catalytic Cracking (FCC) unit Deployment of mid-level biodiesel blends (B10-B20) Underway Scrap-It incentive for the replacement of an older internal combustion engine vehicle with an electric vehicle or a hydrogen fuel cell vehicle 2015 Program Year Testing bio-oil for compatibility with refinery infrastructure to produce conventional gasoline and diesel with renewable content Use of renewable natural gas rather than conventional natural gas to manufacture petroleum gasoline and diesel Retrofitting vehicles for compatibility with propane and supplying Cancelled |



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| HTEC Hydrogen Technology & Energy Corporation | Deployment of light-duty hydrogen fuelling infrastructure and the production of low carbon intensity hydrogen | Underway | 155,500 | | |
|---|--|-----------|---------|--|--|
| Undisclosed | Development and deployment of new fuel technology to produce renewable diesel | Cancelled | - | | |
| | 2014 Program Year | | | | |
| 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).

Need more information?

Please visit the <u>Low Carbon Fuels website</u>, the <u>Part 3 Agreement website</u>, or email us at <u>lcfs@gov.bc.ca</u> 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 a Part 3 Fuel Supplier review the *Greenhouse Gas Reduction* (Renewable and Low Carbon Fuel Requirements) Act and the Renewable and Low Carbon Fuel Requirements Regulation seek independent legal advice to confirm their status, legal obligations and opportunities. The Greenhouse Gas Reduction (Renewable and Low Carbon Fuel Requirements) Act and the Renewable and Low Carbon Fuel Requirements Regulation can be found on the internet at: http://www.bclaws.ca.

^{**} References that the amount was awarded prior to project cancelation