Doane Grant Thornton

New Brunswick Energy and Utilities Board

2025 Cost of Carbon Adjustor Periodic Review

Report date: October 3, 2025

Table of contents

1. Executive summary

1.1 Purpose

Doane Grant Thornton LLP ("we", "us", "our", or "Doane Grant Thornton") has been engaged by the New Brunswick Energy and Utilities Board (the "NBEUB" or the "Board") to review the cost of carbon adjustor ("CCA"). Section 13.2 of the Petroleum Products Pricing Act (the "Act" or the "PPPA") requires the Board to set a CCA at any time in which it considers appropriate, using criteria and procedures as determined by the Board.[1] On June 13, 2023, the Board issued a decision pertaining to Matter No. 549 in relation to the inclusion of the cost of carbon adjustor as an additional component in determining maximum petroleum product prices under the Act. In this decision, the Board established a formula and its inputs for setting the CCA that was to be reviewed by early 2024.[2] The CCA was subsequently reviewed in Matter No. 566 in which the Board determined it would continue to be reviewed on an ongoing basis.[3] In both Matter No. 549 and 566, we were engaged by the Board to conduct reviews and provide recommendations regarding the CCA. This report is provided for the use of the Board in conducting a periodic review of the CCA based on current market conditions and the evolution of carbon credit trading systems in Canada.

1.2 Scope of work

Our report outlines the results of our work and documents our observations, findings, and recommendations. Specifically, our review included procedures undertaken in the consideration of the following matters:

- Reviewed whether the Canadian carbon market, established under the Clean Fuel Regulations ("CFR") has reached sufficient maturity and liquidity to serve as a representative carbon credit price in the Board's CCA mechanism.
- Reviewed the methods used for compliance under the CFR in other Atlantic jurisdictions and provide recommendations on whether these alternate approaches may be appropriate in New Brunswick.
- Reviewed whether the Board's CCA mechanism should reflect the use of ethanol-blending in the gasoline pool as a method for refiners and importers to meet their Carbon Intensity ("CI") obligations under the CFR.
- Reviewed whether the assumptions and inputs of the Board's current CCA mechanism are reasonable, particularly the use of a California-based proxy input price relating to compliance pathways, carbon intensities and transportation costs. If they are no longer reasonable, identify changes that can be made to the interim CCA mechanism to keep it relevant as a method for mitigating petroleum industry costs incurred to comply with the CFR.

As part of our review, we conducted stakeholder consultations with key industry participants. During our consultations with stakeholders, we requested their insights regarding each area of the above noted scope of work from the Board. We provided opportunities for stakeholders to express any concerns that they may have in relation to the current cost of carbon adjustor and welcomed participants to share any information we should consider during our review. The key themes identified from consultations are detailed throughout our report and the complete list of stakeholders contacted and consulted are listed in Appendix E.

[1] New Brunswick Energy and Utilities Board – Petroleum Products Pricing Act – Section 13.2 - P-8.05.pdf (gnb.ca).
[2] New Brunswick Energy and Utilities Board – Decision Matter No. 549 – June 13, 2023.
[3] New Brunswick Energy and Utilities Board – Decision Matter No. 566 – April 24, 2024.

1.3 Restrictions and limitations

Our scope of work is set out throughout this report. The procedures undertaken in the course of our review do not constitute an audit of the financial information and consequently, we do not express an audit opinion on any financial information. Our opinions on other matters are outlined throughout this report.

We acknowledge that our report will be communicated to the parties to the matter and may become a public document accessible through the Board's website. We have given the Board our consent to use our report for this purpose. Our report is not to be reproduced or used for any purpose other than that outlined above without prior written permission in each specific instance. Doane Grant Thornton LLP recognizes no responsibility to any third party who may rely on this report or other material provided to the Board.

Unless stated otherwise in this report, Doane Grant Thornton LLP has relied on information on the Board's website and third-party sources in preparing this report, whom Doane Grant Thornton LLP believes is reliable. We are not guarantors of the information upon which we have relied in preparing the report and, except as stated, we have not audited or otherwise attempted to verify any of the underlying information or data contained in this report. We have made efforts to ensure a conservative, realistic and transparent approach, however, some of the analysis depends on the input from third parties whose opinions may influence the conclusions. All analysis, information and recommendations contained herein are based on the information available to Doane Grant Thornton LLP as of this report's date.

1.4 Summary of findings, observations and conclusions

The following represents a summary of our key findings and recommendations based on the procedures outlined throughout the report:

Figure 1 – Summary of findings, observations and conclusions

#	Report section	Findings, observations, and conclusions
3.	Review of the Canadian carbon market	The Canadian carbon market for the CFR has not reached sufficient maturity and liquidity to serve as a representative carbon credit price in the Board's CCA mechanism. This is supported by comments provided by Environment and Climate Change Canada ("ECCC") in their 2024 Quarterly Credit Market Report. We recommend that the Board continue to monitor the Canadian carbon market over the next 12-to-18 months as the market continues to mature. During industry consultations, stakeholders generally agreed that market maturity would likely occur in 2026-2027.

#	Report section	Findings, observations, and conclusions
4.	Jurisdictional review	We have reviewed the current CFR cost recovery methods across Atlantic Canada and obtained respective insights from stakeholders. Based on our review, we have noted the following: • **Prince Edward Island** – The Charlottetown Rack price continues to serve as the benchmark price, and as such a separate clean fuel cost adjustor is not required to recover CFR compliance costs. • **Newfoundland and Labrador** - The carbon price adjustments of 5.40 cents per litre ("cpl") for gasoline and 6.02 cpl for diesel have remained unchanged since January 11, 2025. • **Nova Scotia** – The Nova Scotia Energy Board ("NSEB") is currently reviewing its wholesale margin and clean fuel adjustment in the ongoing Matter No. 11978. In this matter, the NSEB's Expert, Signal Energy Consulting ("Signal" or "Signal Energy"), has recommended removing the interim wholesale margin increases of 3.00 cpl for both gasoline and diesel, and revising the clean fuel adjustor to be the lesser of the Argus Atlantic CFR Costs and the maximum credit price. As of the date of our report, no decision has been released on this matter. We did not identify any alternative approaches currently implemented in the noted jurisdictions that may be more appropriate than New Brunswick's current CCA methodology. During our consultation process, stakeholders did express a desire for regional consistency. As such, we recommend that the Board monitor the ongoing Matter No. 11798 in Nova Scotia.
5.	Use of ethanol blending	A change to the Board's CCA mechanism to reflect the use of ethanol blending in the gasoline pool as a method for refiners and importers to meet their CI obligations under the CFR is not warranted at this time. While it is evident that ethanol blending is widely used as a method for CFR compliance, stakeholders have indicated that it is not their primary compliance pathway. While there may be limited amounts of renewable diesel currently being imported into NB, it is a true cost of compliance for primary suppliers on a national level. Additionally, we caution the Board about modifying the current formula to account for some amount of ethanol blending as it may over-complicate the formula. With the continuously increasing stringencies of the CFR and developing market it may be difficult for the Board to include an assumption pertaining to ethanol blending that is both timely and reflective of market conditions.
6.	Review of current formula	The methodology in the current CCA formula is reasonable and there are no warranted changes to the assumptions or inputs at this time

2. Background

2.1 Clean Fuel Regulations in Canada

CFR in Canada (published in July 2022) are a component of the overall climate initiative to reduce greenhouse gas emissions and accelerate the usage of clean fuels and technologies across the country.[4] CFR requires all suppliers (including producers and importers) of liquid fossil fuel to gradually reduce the amount of pollution emitted in the form of greenhouse gas ("GHG") emissions from the extraction, refining, distribution, and use of the fuels in Canada.[5] Over time, the benchmark established by the CFR is to achieve a reduction from levels in 2016 of approximately fifteen percent (15%) in the CI of gasoline and diesel consumed in Canada by the year 2030.[6] The CFR considers the GHG emissions connected to all stages of the lifecycle of fuel production and consumption, including extraction, processing, distribution, and end-usage. As of July 1, 2023, the carbon intensity reduction requirement for petroleum fuel suppliers started at 3.5 grams of carbon dioxide equivalent per megajoule of energy ("gCO_2e/MJ") and will subsequently increase by 1.5 gCO_2e/MJ per calendar year until reaching a total of 14 gCO_2e/MJ by 2030.[7] We understand that effective January 1, 2025, the carbon intensity reduction requirement for petroleum fuel suppliers is 6.5 gCO_2e/MJ. The reduction requirement will increase to 8.0 gCO_2e/MJ in 2026.

To meet these reduction targets, the CFR established a compliance credit market. Fuel suppliers can generate credits in three main ways:

1) By undertaking projects that reduce the lifecycle CI of fossil fuels (e.g., carbon capture and storage, on-site renewable electricity);

2) By supplying low-CI fuels such as ethanol or biodiesel; and

3) By supplying energy to advanced vehicle technologies, including electricity or hydrogen for transportation.

Each credit represents a one-tonne reduction in carbon dioxide equivalent ("CO_2e") emissions, and credits can be traded or banked to meet annual compliance obligations.[8]

In parallel with these regulatory changes, the federal consumer fuel charge — a component of Canada's carbon pricing system — was removed effective April 1, 2025. This change eliminates the consumer-facing carbon price on fuels in provinces and territories where the federal backstop previously applied. The federal government has shifted its focus to maintaining carbon pricing for large industrial emitters, while winding down consumer-facing mechanisms.[9]

[4] Government of Canada – What are the Clean Fuel Regulations? – https://www.canada.ca/en/environment-climate-change/services/managing-pollution/energy-production/fuel-regulations/clean-fuel-regulations/about.html - Accessed July 18, 2025.
[5] Government of Canada – What are the Clean Fuel Regulations? – https://www.canada.ca/en/environment-climate-change/services/managing-pollution/energy-production/fuel-regulations/clean-fuel-regulations/about.html - Accessed July 18, 2025.
[6] Government of Canada – What are the Clean Fuel Regulations? – https://www.canada.ca/en/environment-climate-change/services/managing-pollution/energy-production/fuel-regulations/clean-fuel-regulations/about.html - Accessed July 18, 2025.
[7] Government of Canada – What are the Clean Fuel Regulations? – https://www.canada.ca/en/environment-climate-change/services/managing-pollution/energy-production/fuel-regulations/clean-fuel-regulations/about.html - Accessed July 18, 2025.
[8] Government of Canada – What are the Clean Fuel Regulations? – https://www.canada.ca/en/environment-climate-change/services/managing-pollution/energy-production/fuel-regulations/clean-fuel-regulations/compliance.html - Accessed July 18, 2025.
[9] Government of Canada – Removing the consumer carbon price, effective April 1, 2025 - https://www.canada.ca/en/department-finance/news/2025/03/removing-the-consumer-carbon-price-effective-april-1-2025.html - Accessed July 18, 2025.

2.2 New Brunswick Petroleum Pricing Act

On December 16, 2022, New Brunswick's Bill 15 received Royal Assent and as such An Act Respecting Petroleum Pricing was revised to include a cost of carbon adjustor. The Act defines the cost of carbon adjustor as "*...the result of a monetary adjustment intended to mitigate for wholesalers and retailers the effect of costs incurred during a given compliance period by a primary supplier of liquid petroleum products to comply with the Clean Fuel Regulations (Canada) or any other regulatory instrument made under the Canadian Environmental Protection Act, 1999 (Canada) and the Environmental Violations Administrative Monetary Penalties Act (Canada).*" Section 13.2 of the Act notes:

- "*The Board shall set the cost of carbon adjustor and the market adjustor at any time the Board considers appropriate, using criteria and procedure as determined by the Board.*"[10]

Following the inclusion of a cost of carbon adjustor in the Act, the Board engaged Doane Grant Thornton to propose the criteria and procedures that the Board may follow in setting the cost of carbon adjustor as expressed in Canadian cents per litre ("Initial Report").[11] Subsequent to a public hearing pertaining to the matter (Matter No. 549), the Board released a decision stating:

- *"The Board establishes the formula and its inputs attached as Appendix "A" as the initial mechanism for setting the cost of carbon adjustor component of maximum motor fuel prices calculated according to the PPPA and the General Regulation. No later than early 2024, the Board will conduct a review of the ongoing appropriateness of the various aspects of the formula, based on both current market conditions as well as the evolution of carbon credit trading systems in Canada."*[12]

On January 29 and 30, 2024, the NBEUB held an oral hearing (Matter No. 566) to review the appropriateness of the interim mechanism the Board established in Matter 549 for setting the cost of carbon adjustor, as permitted by section 14(2.1) of the Petroleum Products Pricing Act and section 13.2 of the General Regulation – Petroleum Products Pricing Act ("Regulation"). Subsequent to this hearing, on April 24, 2024, the board released a decision stating that an interim CCA mechanism remains appropriate while the Canadian carbon credit market continues to mature and becomes sufficiently liquid.[13] The interim CCA mechanism is the original formula, with the following adjustments:

1) Lowering the carbon intensity assumption for renewable diesel from 35 gCO2e/MJ to 29gCO2e/MJ; and

2) Adding an assumption that up to ten percent of CFR compliance will be achieved through contributions to the compliance fund in periods in which the proxy credit price is greater than the cost of contributing to the fund.[14]

In May of 2024, the revision resulted in a decrease in the per-litre charge for gasoline. This charge was reduced from 3.39 cents per litre to 3.07 cents per litre.[15]

Consistent with the Board's previous decisions to continue to review the interim CCA mechanism regularly, we understand the Board is currently completing another review of the CCA in Matter No. PT-003-2025. As part of this matter, we have been engaged as a third-party expert to conduct a periodic review of the CCA. On November 20, 2024, Bill No. 4 - An Act Respecting Petroleum Products Pricing ("Bill No. 4"), was introduced in the Legislative

[10] New Brunswick Energy and Utilities Board – Petroleum Products Pricing Act – Section 13.2 - P-8.05.pdf (gnb.ca).
[11] Grant Thornton – New Brunswick Energy and Utilities Board - Review of the Cost of Carbon Adjustor – February 28, 2023 - 2023 02 28 - NBEUB - Cost of Carbon Adjustor (pdf).pdf.
[12] New Brunswick Energy and Utilities Board – Decision Matter No. 549 – June 13, 2023.
[13] New Brunswick Energy and Utilities Board – Decision Matter No. 566 – April 24, 2024.
[14] New Brunswick Energy and Utilities Board – Decision Matter No. 566 – April 24, 2024.
[15] Telegraph-Journal – Clean fuel regulations now add 3.07 cents per litre to gas price - Clean fuel regulations now add 3.07 cents per litre to N.B. gas price | Telegraph-Journal.

Assembly with the purpose of repealing the CCA component of the maximum price of petroleum products under the Act and Regulations.[16] Bill No. 4 received royal ascent on June 6, 2025.[17]

[16] Legislative Assembly of New Brunswick – Bill No. 4 First Report of the Standing Committee on Law Amendments – May 6, 2025 - 20250506LawAmendments1.pdf – Accessed on September 22, 2025.
[17] Legislative Assembly of New Brunswick - An Act Respecting Petroleum Products Pricing - Legislative Assembly of New Brunswick – Accessed on September 22, 2025.

3. Review of the Canadian carbon market

3.1 Scope

We have been asked to review whether the Canadian carbon market, established under the CFR, has reached sufficient maturity and liquidity to serve as a representative carbon credit price in the Board's CCA mechanism.

3.2 ECCC reporting

ECCC's quarterly and annual reporting presents data on the compliance credit market including credit creation data, the number of credit transfers, and the average price for credit transfers. In July 2025, ECCC released the 2024 Quarterly Credit Market Report – Q1 to Q4.[18] It is important to note that transfers can be completed with a price and without a price. Transfers completed without a price include transfers performed through an agreement to transfer credit upon creation, or transfers reported with zero or near-zero prices. These transfers are permitted as outlined in CFR sections 108 and 106, respectively.[19] It is generally assumed that credits reported without a price are part of broader fuel supply contracts. Credit transfer data as outlined in ECCC's report are detailed in the table below.

Figure 2– ECCC 2024 Quarterly Credit Market Reporting [20]

Type of transfer	Number of transfers of compliance credits	Compliance credits transferred (t CO_2e)	Average credit price (CAD)	Maximum credit price (CAD)
With a price	347	3,329,809	$149.24 - $166.42	$263.10-$280.00
Without a price	564	5,301,420	N/A	N/A

As detailed in the above table, there were 347 credit transfers with a price in 2024. Credit prices fluctuated from a low of $149.24 in the fourth quarter, to a high of $166.42 in the second quarter. These transactions totalled approximately 3.33 million tonnes of CO_2e. The majority of credit transfers during the year were those without a price. There were 564 credit transfers without a price which equated to approximately 5.0 million tonnes of CO_2e.

With regards to market maturity, ECCC notes the following:

- "As the CFR credit market is in an early phase of development, the credit prices reported may not fully reflect market value. Additionally, the data does not include credits transferred through a Compliance Credit Clearance Mechanism or contributions made to a Registered Emission Reduction Funding Program; this information will be available in the annual market reports."[21]

ECCC notes in their report that credit prices may not fully reflect market value. It is evident that the Canadian carbon market established under the CFR is continuing to develop. However, it has not yet reached the level of maturity and liquidity required to serve as a reliable benchmark for carbon credit pricing within the Board's CCA mechanism.

[18] Environment and Climate Change Canada – Clean Fuel Regulations 2024 Quarterly Credit Market Report – Q1 to Q4.
[19] Environment and Climate Change Canada – Clean Fuel Regulations - Clean Fuel Regulations – Accessed on September 19, 2025.
[20] Environment and Climate Change Canada – Clean Fuel Regulations 2024 Quarterly Credit Market Report – Q1 to Q4.
[21] Environment and Climate Change Canada – Clean Fuel Regulations 2024 Quarterly Credit Market Report – Q1 to Q4.

3.3 Stakeholder insights on market maturity

Stakeholders emphasized that the CFR credit market's maturity is not sufficient to serve as a reliable foundation for pricing or policy decisions. Some common themes from discussions with stakeholders pertaining to Canadian credit market maturity include:

- The relatively limited number of transactions with available pricing data suggests that the market has not reached maturity and reported credit prices are not reflective of market value.

- Given the nature of the CFR's continuously increasing stringency, timeliness of credit price reporting is critical. Stakeholders voiced concerns that ECCC's turnaround time for reporting undermines the reliability of the data as the report may not fully reflect current market conditions. This can be noted with the release of the 2024 Quarterly Credit Market Report in July 2025.

Ultimately, all shareholders who provided commentary on Canadian carbon market were of the view that it has not yet reached market maturity and cautioned that using credit market data in the current CCA mechanism may create misalignment with market values. Most stakeholders view the current state of the market as transitional and expect that market maturity may be reached in 2026-2027.

3.4 Conclusion

The Canadian carbon market for the CFR has not reached sufficient maturity and liquidity to serve as a representative carbon credit price in the Board's CCA mechanism. This is supported by comments provided by ECCC in their 2024 Quarterly Credit Market Report.[22] We recommend that the Board continue to monitor the Canadian carbon market over the next 12-to-18 months as the market continues to mature. During industry consultations, stakeholders generally agreed that market maturity would likely occur in 2026-2027.

[22] Environment and Climate Change Canada – Clean Fuel Regulations 2024 Quarterly Credit Market Report – Q1 to Q4.

4. Jurisdictional review

4.1 Scope

We have been asked to review the methods used for compliance under the CFR in other Atlantic jurisdictions and provide recommendations on whether these alternate approaches may be appropriate in New Brunswick.

4.2 Petroleum pricing models in Atlantic Canada

The regulatory pricing frameworks for petroleum products across the Atlantic provinces are similar, with formulaic approaches being applied to compute weekly price adjustments.[23] As a function of the formulaic approaches employed, the average daily price is compared to a specified benchmark to adjust the maximum retail selling prices for petroleum fuels.

Maximum fuel prices are reflective of the components set out in each province's respective legislation and includes benchmark prices, mark-ups, zone differentials, cost of carbon adjustors, and various forms of taxation (federal excise taxes, provincial taxes, carbon taxes/levies, and sales tax). Within Atlantic Canada, the provincial governments have granted authority over the regulation of maximum petroleum product pricing to the applicable provincial regulatory boards in each province.

The following table provides a summary of the petroleum pricing regulatory elements, as at the week ending September 19, 2025, for regular self-service gasoline. For purposes of comparison, the figures included below are illustrative of the maximums established for the lowest priced zone in each of the four Atlantic provinces (Saint John, NB; Halifax, NS; St. John's, NL; and Charlottetown, PEI).

[23] Newfoundland & Labrador Board of Commissioners of Public Utilities - 2022-2023 Petroleum Products Pricing Review - January 17, 2023.

Figure 3 – Key regulatory elements in Atlantic Canada for regular self-service gasoline

	New Brunswick[24]	Nova Scotia[25]	Newfoundland & Labrador[26]	Prince Edward Island[27]
Year in which regulation introduced	2006	2006	2001	1991
Adjustment timeframe	Weekly (Friday)	Weekly (Friday)	Weekly (Friday)	Weekly (Friday)
Benchmark used	New York Harbor Spot / Discretion	New York Harbor Spot	New York Harbor Spot	Charlottetown Rack
Average benchmark price timeframe	5 days	5 days	5 days	Prior week
Extraordinary adjustments/criteria	Discretionary	(+/-) 6 to 8 cpl change in average benchmark price over two days (gas and diesel)	(+/-) 6 to 8 cpl change in daily or running average (all fuels)	Discretionary based upon daily assessment of prices and impact
Interrupter	✓	✓	✓	✓
Wholesale margin (cpl)	6.51	13.84	15.65	5.0
Retail margin (cpl)	10.66	5.4-7.4	14.28	7.0-8.0
Fixed minimum retail price	X	✓	X	✓
Transportation/zone differentials (cpl zone range)	Actual to maximum of 4.75	0.6	0.0	N/A
Mark-up adjustment (for credit card fees)	0.0	0.2	0.0	0.0
OTHER COSTS				
Cost of carbon adjustor	7.79	5.46	5.40	N/A – costs are carried in Charlottetown rack price
Federal excise tax (cpl)	10.0	10.0	10.0	10.0
Provincial fuel taxes (cpl)	10.87	15.5	7.5	8.47
Harmonized sales tax ("HST") %	15%	14%	15%	15%
Maximum retail price (as at indicated date) $ / L (September 19, 2025)	**1.526**	**1.472**	**1.552**	**1.559**

The prescribed petroleum pricing components for each of the Atlantic provinces include elements which are common to each, and are described below as follows:

- **Benchmark –** The benchmark prices included within the maximum prices represent the cost of the product and are adjusted regularly to reflect the most recent product cost data as stipulated within the provincial petroleum pricing regulations. Benchmark prices are established by the regulator based upon the available commodity market data reported over the period since the last adjustment. The New York Harbour ("NYH") spot price is used for each Atlantic province benchmark price except PEI. NBEUB has discretion to use

[24] New Brunswick Energy and Utility Board – Current Petroleum Prices - New Brunswick Energy & Utilities Board - Current Petroleum Prices (nbeub.ca). - Accessed September 19, 2025.
[25] Nova Scotia Utility and Review Board – Gasoline and Diesel Prices - Gasoline & Diesel Prices & Zone Map | Nova Scotia Utility and Review Board.- Accessed September 19, 2025.
[26] Newfoundland and Labrador Board of Commissioners of Public Utilities – Weekly Maximum Pricing by Zone - Board of Commissioners of Public Utilities.- Accessed September 19, 2025.
[27] Prince Edward Island Regulatory and Appeals Commission – Current Petroleum Prices Current Petroleum Prices (irac.pe.ca). - Accessed September 19, 2025.

another source and method of calculating benchmark prices. PEI uses the Charlottetown Rack as its benchmark.

- **Wholesale and Retail Margin –** The wholesale and retail margin or mark ups reflect the costs of supply. The margin is set by the regulator periodically from a public hearing and/or industry application.

- **Transportation / zone differential –** Pricing zones included in the maximum prices provide differential costs to be added reflective of the transportation costs required to the respective zones in each province. Newfoundland and Labrador has 26 pricing zones, Nova Scotia has 6, New Brunswick has one plus Parish of Grand Manan, and PEI has one pricing zone.

- **Cost of carbon adjustment –** The cost of carbon adjustment (also known as the carbon charge and the carbon price adjustment) is an additional cost pertaining to the Clean Fuel Regulations that came into effect on July 1, 2023. Currently, New Brunswick, Nova Scotia, and Newfoundland and Labrador have adopted a cost of carbon adjustor to account for the costs of compliance of the Clean Fuel Regulations in their pricing models. We understand that because PEI uses the Charlottetown Rack benchmark, the cost of the clean fuel regulations incurred by refiners is reflected in their costs in the Rack price, ultimately flowing to consumers. The amount of the cost of carbon adjustment varies by province and is explained further in the following sections of this report.

- **Federal excise tax –** The federal excise tax is currently set at 10.0 cents per liter.

- **Provincial fuel tax** – Each province has a distinct provincial fuel tax.

4.3 Carbon adjustor mechanisms across Atlantic Canada

4.3.1 Nova Scotia

In 2023, NSEB, previously the Nova Scotia Utility and Regulatory Board ("NSUARB") , underwent a Petroleum Products Wholesale Margin Review (Matter No. 10853). While this matter covered margin topics beyond the adjustor, the NSEB engaged Doane Grant Thornton to prepare a report providing information on a potential cost of carbon adjustor.[28] The Petroleum Products Pricing Regulations were amended in June 2023 to include the establishment of a clean fuel adjustor to address the financial and administrative burdens associated with the application of the Clean Fuel Regulations or any other regulatory instrument made under the Canadian Environmental Protection Act, 1999 (Canada) and the Environmental Violations Administrative Monetary Penalties Act (Canada). An amendment was also made to provide the NSEB with the authority to review the clean fuel adjustor at its own discretion or on application by relevant stakeholders.[29]

On July 7, 2023, the NSEB included a clean fuel adjustor in their weekly update for the setting of regulated petroleum products. The clean fuel adjustor amount is based on the maximum credit price of $300 for transfers through the compliance credit clearing mechanism ("CCM") under the Clean Fuel Regulations and was set at 3.74 cents per litre on gasoline and 4.17 cents per litre on diesel.[30]

On April 12, 2024, the Board requested comments on its intent to change the interim CFR adjustor to be based on Argus' Canada CFR Compliance Cost and to set a maximum cost of compliance which would be effectively a cap on the clean fuel adjustor amount. The Board proposed that the maximum cost be based on the Board's current method for setting a clean fuel adjustor (maximum credit price of $300 adjusted for inflation, for transfer through the compliance-credit clearing mechanism under the CFR). Comments were received from three parties; the Consumer Advocate, Canadian Fuels Association, and Imperial Oil. The parties were in favour of using the Argus

[28] Nova Scotia Energy Board – Review of the Cost of Carbon Adjustor Mechanism – Grant Thornton – April 12, 2023.
[29] Nova Scotia Petroleum Products Pricing Regulations – Accessed August 25, 2025.
[30] Nova Scotia Utility and Review Board – M10853 - June 28, 2023.

Canada CFR Compliance Cost. However, while the Consumer Advocate was in favour of the cap, the Canadian Fuels Association and Imperial Oil were opposed to setting a maximum cost of compliance.[31]

The Board issued its decision in a letter dated June 25, 2024, which revised the calculation to reflect Argus reported Canadian CFR Cost as detailed below:

1. The clean fuel adjustor amount applied to gasoline will be based on the average of the daily Canada CFR compliance cost – gasoline, since its previous price setting, and the adjustor applied to diesel will be based on the average of the daily Canada CFR compliance cost – diesel, since its previous price setting.[32]

2. The maximum amount of the adjustor for both gasoline and diesel will be capped based on the Board's current methodology for the adjustor ($300/tonne credit price, adjusted for inflation). Adjusting these amounts for the most up-to-date inflation data to May 31, 2024, the maximum amounts will be 5.46 cents per litre for gasoline and 6.09 cents per litre for diesel.[33]

On November 20, 2024, Steve R. Murphy's Auto Services Ltd. and WSK Investments Limited submitted an application to the NSEB requesting a review of the current wholesale margins for self-service and full-service gasoline and diesel. The application noted that relief was required to address the impacts on the wholesale margin resulting from the Nova Scotia rack-based pricing not declining in-step with the reduction in the clean fuel adjustor.[34] On December 23, 2024, in interim order on Matter No. 11978, the NSEB ordered the wholesale margin for self-service and full-service gasoline to be increased, on an interim basis, by 3.00 cpl, up to a total of 13.84 cpl for gasoline and 14.84 cpl for diesel, respectively.[35]

As part of Matter No. 11978, the NSEB engaged Signal Energy Consulting as an independent expert consultant to review and report on information provided by wholesalers. This matter also included a review of the clean fuel adjustor amounts. In Signal's report dated April 23, 2025, it was determined that the net change in the adjusted acquisition cost to benchmark price differential increased for gasoline (1.81 cents per litre) and diesel (1.85 cents per litre). The review also showed evidence that this shift was likely in response to a disconnect between the costs of CFR compliance (and its impact on rack prices) and the Board's current method for calculating its clean fuel adjustor. Signal's recommendation to the Board was to address the change in volume-weighted difference between acquisition costs and benchmark prices by adjusting how it calculates the clean fuel adjustor to the lesser of the maximum credit price and the Argus Atlantic CFR compliance cost, as the Argus Canada CFR compliance cost was determined to be misaligned with conditions in Atlantic Canada. Signal also noted that their recommendation should be in lieu of the interim 3.00 cent per litre increases implemented by the Board as part of this matter.[36]

We understand that Matter No. 11978 is still currently before the Board. The hearing for this matter was on August 6, 2025. Closing comments were provided by the following intervenors; the Canadian Fuels Association, the Convenience Industry Council of Canada and the Canadian Energy Marketers Association ("CICC & CEMA"), the Consumer Advocate, Irving Oil, the Scholten Group, and Imperial Oil. Based on our review of the closing comments provided, it is evident that the majority of intervenors are in favour of the adoption of the Argus Atlantic CFR Cost. However, the interveners (with the exception of the Consumer Advocate and CICC & CEMA) did not agree with Signal's recommendation to include the "lesser of" with regards to the maximum credit price. Additionally, we understand that Imperial Oil's closing comments for this matter disagreed with Signal's recommendations. Imperial Oil submitted that the NSEB should adopt the CCA currently implemented in New Brunswick as noted in the excerpt below.

- *"Imperial Oil respectfully disagrees with this recommendation and submits that the Board should adopt the CCA mechanism implemented by the NBEUB on April 24, 2024 (the "2024 Formula", as described below).*

[31] Nova Scotia Utility and Review Board – Order 2024 NSUARB 111 - M10853 – June 26, 2024.

[32] Nova Scotia Utility and Review Board – Order 2024 NSUARB 111 - M10853 – June 26, 2024.
[33] Nova Scotia Utility and Review Board – Order 2024 NSUARB 111 - M10853 – June 26, 2024.
[34] Nova Scotia Energy Board – Steve R. Murphy's Auto Services Ltd. Re 2024 NSUARB 215 Interim Order– M11978 – December 23, 2024.
[35] Nova Scotia Energy Board – Steve R. Murphy's Auto Services Ltd. Re 2024 NSUARB 215 Interim Order– M11978 – December 23, 2024.
[36] Signal Energy Consulting – Expert Report-NSEB Matter M11978-Wholesale Margin Review – April 23, 2025.

> *This is the correct approach, consistent with the principles guiding the Board's decision making, because: (i) it is a market-responsive approach that more accurately reflects the cost of complying with the Canadian Clean Fuel Regulations; and (ii) avoids an arbitrary cap on cost recovery. In the alternative, Imperial submits that the Board should adopt Argus Atlantic as its methodology, excluding the CATS maximum credit price, because it is the next best market responsive measure of the cost of compliance."*[37]

We also understand that there were conflicting views outlined in the closing comments provided by Imperial Oil and Irving Oil pertaining to the alignment of the methodologies used by both the Argus Atlantic CFR Cost and the NBEUB's CCA mechanism. Irving Oil's submission noted that the Argus Atlantic CFR compliance cost is consistent with the approach used in New Brunswick.[38] Alternatively, Imperial Oil highlighted that the Argus Atlantic CFR Cost follows the methodology previously used the NBEUB's CCA mechanism. The Argus Atlantic CFR Cost methodology does not include the revisions made in 2024 to the NBEUB CCA formula which include the lowering of the carbon intensity assumption for renewable diesel and the additional assumption that up to 10% of CFR compliance will be achieved through contributions to the compliance fund in periods in which the proxy credit price is greater than the cost of contribution to the fund.[39] On September 22, 2025, we met with Argus to discuss the differences in the methodologies. Argus confirmed that their Atlantic CFR cost methodology does not include the NBEUB's assumption regarding 10% of compliance achieved through compliance fund contributions. The Argus Atlantic CFR Cost is discussed in more detail in **Section 6** of our report.

4.3.2 Newfoundland and Labrador

On June 23, 2023, the Petroleum Products Regulations in Newfoundland and Labrador were amended to include a carbon price adjustment in maximum prices for motor and heating fuels. This amendment was associated with the federal Clean Fuel Regulations, which mitigates the costs incurred to wholesalers and retailers in relation to motor and heating fuels maximum prices.[40]

The Newfoundland and Labrador Board of Commissioners of Public Utilities ("PUBNL") has established the carbon price adjustment for motor fuels based on the maximum credit price of $300 for transfers through the compliance CCM. Effective July 6, 2023, PUBNL has set the carbon adjustment at 3.74 cents per litre for gasoline motor fuel and 4.17 cents per litre for diesel motor fuel in all zones other than select zones in Labrador including zones 10,11, 11a,11b,12 and 14.[41] Such carbon adjustors are being made on an interim basis and PUBNL is to review the implemented adjustments to determine whether there should be additional adjustments. The PUBNL expects changes to be necessary as market conditions develop, and more information becomes available in relation to Clean Fuel Regulations.[42]

On January 10, 2024, the Petroleum Products Regulations in Newfoundland and Labrador were amended (P.P. 2 (2024)) to include a carbon price adjustment in maximum prices for motor and heating fuels. Effective January 11, the carbon price adjustment for gasoline motor fuel, except Zones 10, 11, 11a, 11b, 12 and 14, increased from 3.74 cents per litre to 5.40 cents per litre and the carbon price adjustment for diesel motor fuel increased from 4.17 cents per litre to 6.02 cents per litre.[43]

4.3.3 Prince Edward Island

On June 15, 2023, Prince Edward Island Regulatory and Appeals Commission ("IRAC" or the "Commission"), announced that the Commission would review the pricing model for petroleum products, including for gasoline, diesel, furnace oil and commercial diesel sold in PEI. The scope of the review of order PMC22-01 - Commission Petroleum Margin Review includes the appropriate benchmark price used to make weekly price adjustments, the

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[37] Imperial Oil – Matter No.11978 Closing Submissions – August 27, 2025.
[38] Irving Oil – Matter No. 11978 Closing Submission – Augst 27, 2025.
[39] Irving Oil – Matter No. 11978 Closing Submission – Augst 27, 2025.
[40] Newfoundland and Labrador Board of Commissioners of Public Utilities Media Release - July 6, 2023 - Microsoft Word - DRAFT Media Release for Price Adjustments July 6, 2023 (pub.nf.ca).
[41] Newfoundland and Labrador Board of Commissioners of Public Utilities Order NO. P.P. 45 (2023) - July 5, 2023 - NEWFOUNDLAND AND LABRADOR (pub.nf.ca).
[42] Newfoundland and Labrador Board of Commissioners of Public Utilities Order NO. P.P. 45 (2023) - July 5, 2023 - NEWFOUNDLAND AND LABRADOR (pub.nf.ca).
[43] Newfoundland and Labrador Board of Commissioners of Public Utilities Order NO. P.P. 2 (2024) - January 10, 2024 - NEWFOUNDLAND AND LABRADOR (pub.nf.ca).

wholesale and retail margins for petroleum products, and incorporating carbon costs associated with the Clean Fuel Regulations into the pricing model.[44]

IRAC engaged Gardner Pinfold Consultants Inc ("Gardner") to assist with the review. In their report, dated May 2023, Gardner recommends the following:

- *"Recommendation 1: Continue to use the Charlottetown rack price as the benchmark for making weekly price adjustments. Continue to monitor NYH and rack prices in regional markets to identify any shifts in the Charlottetown rack relative to others and to obtain from refiners a satisfactory explanation for such shifts."* [45]

Further, the supplemental report provided by Gardner illustrates their recommended pricing formula using NYH as the benchmark price, should IRAC choose to replace the existing Charlottetown rack price. In the supplemental report, Gardner explains that when using the NYH benchmark, the regulator would set the adjustor based on industry costs or, in the absence of industry data, by a proxy.[46] Gardner also notes that through the continued use of the Charlottetown rack price as the benchmark, the clean fuel adjustor will be flown through the formula to consumers as refiners reflect their costs in the rack price.[47]

On October 13, 2023, IRAC announced a public hearing would be held with respect to the review of the pricing model and margins for petroleum products including Clean Fuel Regulations.[48] The hearing regarding PMC22-01 (Commission Petroleum Margin Review) was held on November 6, 2023. On December 17, 2023, order PC23-07 was issued regarding the decision on this matter. It was concluded that the Charlottetown Rack price will continue to serve as the benchmark price, and that a separate clean fuel cost adjustor is not required to recover CFR compliance costs.[49] The commission noted they will continue to monitor the CFR compliance costs in PEI and other Atlantic Provinces, but no further hearings or reviews have been put forward per the IRAC website.

[44] Prince Edward Island Regulatory and Appeals Commission – Review of the Pricing Model and Margins for Petroleum Products including the Clean Fuel Regulations – June 15, 2023 - Public-Notice-Petroleum-Margin-Review-June-15-2023.Final_.pdf (irac.pe.ca).
[45] Gardner Pinfold Consultants Inc. – Petroleum Products Benchmark and Margin Review – May 2023 - Exhibit-C-1a-PEI-margin-review-report-2023-final.pdf (irac.pe.ca).
[46] Gardner Pinfold Consultants Inc. – Petroleum Products Benchmark and Margin Review – Pricing formula using NYH as the benchmark price – July 2023 - Exhibite-C-5-The-pricing-formula-using-NYH-August-2-2023.pdf (irac.pe.ca).
[47] Gardner Pinfold Consultants Inc. – Petroleum Products Benchmark and Margin Review – Pricing formula using NYH as the benchmark price – July 2023 - Exhibite-C-5-The-pricing-formula-using-NYH-August-2-2023.pdf (irac.pe.ca).
[48] Prince Edward Island Regulatory and Appeals Commission – Notice of Hearing – October 13, 2023 Public-Notice-Petroleum-Hearing.pdf (irac.pe.ca).
[49] Prince Edward Island Regulatory and Appeals Commission – Order PC23-007 (2023) - December 7, 2023 - irac.pe.ca/wp-content/uploads/PC23-007.pdf.

4.4 Comparison of total margins

The table below illustrates the total of the wholesale margins, retail margins, and CFR cost adjustments across NB, NS and NL.

Figure 4 – Total margin adjustments in Atlantic Canada

	New Brunswick (Current)	New Brunswick (Adjusted) Note 1	Nova Scotia (Current) Note 2	Nova Scotia (Proposed) Note 3	Newfoundland & Labrador (Current)
Wholesale margin (cpl)	6.51	9.51	13.84	10.84	15.65
Retail margin (cpl)	10.66	10.66	5.4-7.4	5.4-7.4	14.28
Subtotal (cpl)	17.17	20.17	19.24- 21.24	16.24-18.24	29.93
Cost of carbon adjustor (cpl)	7.79	7.79	5.46	8.47	5.4
Total (cpl)	24.96	27.96	24.70- 26.70	24.71-26.71	35.33

Note 1: The wholesale margin reflects the Board's decision for Matter No. PT-002-2025 which results in a maximum wholesale margin increase from 6.51 cpl to 9.51 cpl effect Friday, October 3, 2025.[50] The retail margin per the Board's decision for Matter PT-001-2025 is currently in effect.[51]

Note 2: The current wholesale margin includes the current emergency 3.00 cpl increase as outlined in NSEB Interim Order on Matter No. 11978.[52]

Note 3: We acknowledge that Matter No. 11978 is still before the NSEB, for comparative purposes the Proposed Nova Scotia margins reflect Signal's recommendation of the removal of the 3.00 cpl adjustment and the adoption of the lesser of the Argus Atlantic CFR Cost and maximum credit price.[53] For comparative purposes, we have not considered the lesser of the maximum credit price and have used the Argus Atlantic CFR Cost published August 26, 2025.[54]

As noted in the above table, when considering the wholesale and retail margins on a combined basis, New Brunswick's current total (17.17cpl) and proposed total (20.17 cpl) are within the ranges for Nova Scotia's current and proposed margins of 19.24-21.24 cpl and 16.24-18.24cpl, respectively. When looking at the wholesale margin, retail margin, and cost of carbon adjustors on a total combined basis, New Brunswick's current and proposed totals are 24.96 and 27.96, respectively. These totals are comparable to Nova Scotia's current and proposed ranges of 24.70-26.70 and 24.71-26.71, respectively. It is important to note that the wholesale margin in New Brunswick does not include the incremental cost of CFR compliance. While the current CCA in New Brunswick is higher than the current CFR adjustment in Nova Scotia, the margins and CFR adjustments on a total basis are comparable. This suggests that while the CCA in NB is higher, it plays a balancing role in the broader margin structure.

[50] New Brunswick Energy and Utilities Board – Decision Matter No. PT-002-2025 – September 26, 2025.
[51] New Brunswick Energy and Utilities Board – Decision Matter No. PT-001-2025 – September 12, 2025.
[52] Nova Scotia Energy Board – Steve R. Murphy's Auto Services Ltd. Re 2024 NSUARB 215 Interim Order– M11978 – December 23, 2024.
[53] Signal Energy Consulting – Expert Report-NSEB Matter M11978-Wholesale Margin Review – April 23, 2025.
[54] Argus Media – Argus Air Daily Environmental Commodity Markets Coverage – August 26, 2025.

4.5 Stakeholder insights on jurisdictional trends

During our stakeholder consultations, we discussed how CFR-related cost recovery mechanisms are applied across provinces. Some of the key themes identified from our discussions included:

- Most stakeholders noted that they are experiencing significant differences in rack and benchmark pricing. It is important to note that our review has not included verifying rack prices. However, during our review, one wholesaler provided us with daily rack prices for gasoline and diesel from two primary supplies for May, June, July, and August. This data showed differentials between rack and benchmark prices (including the freight rate). The differentials exceeded the CCA adjustor every day for diesel, and the majority of days for gasoline. This data highlighted the importance of the CCA to allow for the recovery of CFR compliance costs that are included in rack prices but not reflected in benchmark pricing. This is consistent with Signal Energy's findings noted in their expert report for Matter No. PT-002-2025, which noted that the higher range of reported CFR compliance costs they reviewed were generally aligned with the Board's current level of adjustment in the regulated price formula.[55]

- Most stakeholders felt that the current CCA formula used by the NBEUB is still a reasonable proxy for determining CFR compliance costs. Stakeholders did not feel that CFR cost recovery methods used in Nova Scotia or Newfoundland and Labrador were more appropriate than the NBEUB's current methodology. However, some stakeholders did express that regional consistency would help simplify their operations across Atlantic Canada and may increase transparency regarding the CFR compliance costs across the jurisdiction.

4.6 Conclusion and recommendation

We have reviewed the current CFR cost recovery methods across Atlantic Canada and obtained respective insights from stakeholders. Based on our review, we have noted the following:

- **Prince Edward Island –** The Charlottetown Rack price continues to serve as the benchmark price, and as such a separate clean fuel cost adjustor is not required to recover CFR compliance costs.

- **Newfoundland and Labrador -** The carbon price adjustments of 5.40 cpl for gasoline and 6.02 cpl for diesel have remained unchanged since January 11, 2025.

- **Nova Scotia –** The NSEB is currently reviewing its wholesale margin and clean fuel adjustment in the ongoing Matter No. 11978. In this matter, the NSEB's Expert, Signal Energy, has recommended removing the interim wholesale margin increases of 3.00 cpl for both gasoline and diesel, and revising the clean fuel adjustor to be the lesser of the Argus Atlantic CFR Costs and the maximum credit price.[56] As of the date of our report, no decision has been released on this matter.

We did not identify any alternative approaches currently implemented in the noted jurisdictions that may be more appropriate than New Brunswick's current CCA methodology. During our consultation process, stakeholders did express a desire for regional consistency. As such, we recommend that the Board monitor the ongoing Matter No. 11798 in Nova Scotia.

[55] Signal Energy Consulting – Expert Report – NBEUB Matter PT-002-2025 – Wholesale Margin Review – June 13, 2025.
[56] Signal Energy Consulting – Expert Report-NSEB Matter M11978-Wholesale Margin Review – April 23, 2025.

5. Use of ethanol blending

5.1 Scope

We have been asked to review whether the CCA mechanism should reflect the use of ethanol-blending in the gasoline pool as a method for refiners and importers to meet their CI obligations under the CFR.

5.2 Ethanol blending and renewable diesel considerations

Over the past few years, Canada has experienced a significant growth in ethanol blending. This is largely attributed to the implementations of the CFR, as well as other provincial level regulations. According to the Renewable Fuels Association, Canada ranked sixth in global ethanol production in 2023 and accounted for 2% of global production.[57] During the course of our review, we discussed the use of ethanol blending with stakeholders, and whether the Board's CCA mechanism should be updated to reflect the use of ethanol-blending. We have also considered whether the current CCA mechanisms use of renewable diesel carbon intensity is still a reasonable input to use in the determination of the clean fuels regulation credit price. We recognize that in previous stakeholder consultations, industry participants generally agreed that they would rely heavily on renewable diesel as a primary compliance pathway.[58] Our key findings from discussions with stakeholders are listed below:

- Stakeholders noted that some CFR compliance obligations are being met through the more cost-effective use of ethanol blending, however, not all compliance obligations can be met through this pathway. Despite its adoption being slower than originally anticipated, renewable diesel is still considered the primary long-term compliance pathway.

- Stakeholders also acknowledged that there are limited amounts of renewable diesel in the New Brunswick supply. While there may be limited Hydrogenation-Derived Renewable Diesel ("HDRD") in the New Brunswick diesel supply, primary suppliers are using HDRD as a compliance pathway across the country. The CFR are national regulations and compliance costs are incurred wholistically by primary suppliers regardless of the province in which the cost is incurred. Stakeholders indicated that they are making CFR compliance decisions based on a variety factors. These factors include consideration of other provincial-level regulations, such as British Columbia and Quebec, as well as the location of the primary supplier's major infrastructure such as refineries and terminals.

5.3 Conclusion and recommendations

A change to the Board's CCA mechanism to reflect the use of ethanol blending in the gasoline pool as a method for refiners and importers to meet their CI obligations under the CFR is not warranted at this time. While it is evident that ethanol blending is widely used as a method for CFR compliance, stakeholders have indicated that it is not the primary compliance pathway. While there may be limited amounts of renewable diesel currently being imported into NB, it is a true cost of compliance for primary suppliers on a national level. Additionally, we caution the Board about modifying the current formula to account for some amount of ethanol blending as it may over-complicate the formula. With the continuously increasing stringencies of the CFR and developing market it may be difficult for the Board to include an assumption pertaining to ethanol blending that is both timely and reflective of market conditions.

[57] Statistics Canada – Start your engines: A primer on fuel ethanol - Start your engines: A primer on fuel ethanol - Statistics Canada – Accessed September 18, 2025.
[58] Grant Thornton – New Brunswick Energy and Utilities Board Review of the Cost of Carbon Adjustor Mechanism – February 28, 2023 - 2023 02 28 - NBEUB - Cost of Carbon Adjustor (pdf).pdf – Accessed September 18, 2025.

6. Review of current formula

6.1 Scope

The Board has asked us to review whether the assumptions and inputs of the Board's current CCA mechanism are reasonable, particularly the use of a California-based proxy input price relating to compliance pathways, carbon intensities and transportation costs. If they are no longer reasonable, identify changes that can be made to the interim CCA mechanism to keep it relevant as a method for mitigating petroleum industry costs incurred to comply with the CFR.

6.2 Current formula

The current CCA Formula assumes that until the carbon credit market is established and there is liquidity within the market, the primary pathway to compliance with the CFR for primary suppliers in Atlantic Canada will rely heavily on HDRD.

The multi-step calculation to determine the Interim CCA Formula in cents per litre is as follows:

- Step 1 – determine the clean fuels regulation credit price
    - This is determined based on the difference between the price per liter of renewable diesel and the price per liter of low-sulfur diesel in Canadian Dollars.
- Step 2 – Convert the incremental credit price per liter calculated in Step 1 to a credit price per tonne.
- Step 3 – Apply the resulting CFR adjustor from Step 2 by fuel type i.e. 1) ultra-low sulfur diesel and 2) gasoline.
- Step 4 – Calculate credit price per tonne for the compliance fund
- Step 5 – If the CFR credit price per tonne in Step 4 is greater than the credit price per tonne at Step 2, then the Cost of Carbon Adjustor is the amount (s) at Step 3. Otherwise, the CCA is the amount(s) at Step 7.
- Step 6 - Apply the CFR adjustor from Step 4 by fuel type (ULSD and gasoline)
- Step 7 – Combined cost of carbon adjustor.

The detailed breakdown of the current CCA Formula as outlined in the decision pertaining to Matter No. 566 has been included in Appendix C of this report.

6.3 California-based proxy input price

The current CCA mechanism formulates a proxy value for the Canadian carbon credit price by approximating the difference between the prices of renewable diesel and low-sulphur diesel, where the price of renewable diesel is determined with reference to the California Low Carbon Fuel Standard credit price and the U.S. trading price for renewable diesel credits ("D4 RIN pricing", "D4 RIN" or "D4"). In Matter No. 566, the Board reviewed whether the California based proxy was reasonable and whether another proxy, such as the BC credit market price, should be adopted. The Board ultimately decided to maintain the use of the California based proxy as it remained the only pricing available from a mature carbon credit market. [59]

British Columbia's Low Carbon Fuel Standard ("LCFS") credit market is widely recognized as the most mature market in Canda. As of mid-2025, British Columbia's carbon credit market is showing strong activity and growth,

[59] New Brunswick Energy and Utilities Board – Decision Matter No. 566 – April 24, 2024.

particularly through its LCFS and Greenhouse Gas Industrial Reporting and Control Act ("GGIRCA") frameworks. In 2024, the LCFS market traded over $600 million CAD in credit value,[60] reflecting robust demand for low-carbon fuel compliance units. This demand is also attributable to BC's earlier adoption to the credit system (2008) and their proximity to California.

In 2024, California's LCFS credit market traded over $2.9 billion USD in credit value.[61] BC's LCFS market, while active, remains considerably smaller in scale and trading volume. Despite BC being the market leader for domestic credit generation, California's LCFS credit market continues to be the most appropriate proxy for estimating CFR compliance costs. The scale of California's market offers more stability as a representative benchmark.

6.4 Stakeholder insights – CCA inputs

Throughout our consultation process, stakeholders indicated that the use California-based proxy credit price is appropriate in the CCA formula. No stakeholders provided evidence to support changing the proxy. While some stakeholders acknowledged that the BC credit market has continued to grow and mature, they did not express that this growth justified its adoption as the CCA proxy. Stakeholders expressed that the California-based proxy credit price remained the most appropriate benchmark.

It is important to note that one stakeholder we consulted did provide suggestions on incorporating assumptions in the formula that consider compliance through other fuel types such as ethanol blending. They walked us through their methodology for the calculations. While we understand that modifying the assumptions to account for other compliance pathways may more accurately reflect current market conditions, it is our view that the administrative burden of the Board having to obtain and process actual CFR compliance data would offset any increased accuracy in the CCA mechanism.

When asked about any other suggested modifications, most stakeholders did not suggest any modifications aside from the annual carbon intensity targets. We understand that the Board has been updating these inputs annually.

6.5 Argus CFR compliance cost reporting

Argus Media ("Argus") reports CFR cost pricing daily for both Canada and Atlantic Canada specifically. Argus launched its Canadian CFR spot price assessments in early 2024 to provide transparency around the cost of complying with the federal CFR. The Argus Canada CFR Cost for gasoline is calculated as follows:

- *"(Canada CFR gasoline carbon intensity constant (95)– CFR gasoline target constant for named year) x gasoline energy density constant (34.69) x Canada CFR credit price / constant (1,000,000) x 100"*[62]

In contrast, the Atlantic Canada CFR price is the estimated cents per litre cost for meeting the CFR target for the current year in the Atlantic provinces. The Atlantic CFR cost assumed renewable diesel is the primary cost driver and is based on the initial three-step CCA adopted by the NBEUB in 2023. The Atlantic Canada CFR cost is calculated using Argus assessments for California LCFS and D4 RINS, along with CI scopes published by the California Air Resources Board ("CARB") to calculate a green premium for renewable diesel. The green premium is then used to calculate a modelled CFR credit price based on ECCC projections for fuel demand and CI score for renewable diesel. The modelled CFR credit price is converted to an estimated per tonne credit price which is then used to calculate a per litre compliance cost for the gasoline and diesel pools based on ECCC's carbon intensity scores and targets for gasoline and diesel. The LCFS and D4 values are converted to Canadian dollars based on the latest Bank of Canada published exchange rate.

The Argus Atlantic Canada CFR price for gasoline is calculated as follows:

[60] British Columbia - Low Carbon Fuel Standard Credit Market - Low Carbon Fuel Standard credit market - Province of British Columbia - Assessed on September 24, 2025
[61] California Air Resources Board – Weekly LCFS Credit Transfer Activity Reports - Weekly LCFS Credit Transfer Activity Reports | California Air Resources Board – Accessed September 23, 2025.
[62] Argus Media – Methodology and Specifications Guide - last updated August 2025.

- *"(Canada CFR gasoline carbon intensity constant (95) – CFR gasoline target constant for named year) x gasoline energy density constant (34.69) x estimated Canada CFR credit price / constant (1,000,000) x 100"*[63]

We consulted with Argus regarding their CFR Cost methodology and have the following observations:

- The Argus Canada CFR cost is based on Argus' CFR credit price assessment. It is the CI constant minus the CI target for each fuel, multiplied by their energy densities and Agus' assessed credit price, then converted to cents per litre.

- The Argus Atlantic CFR cost is based on the NBEUB's original CCA formula per Matter No. 549. However, Argus uses its own assessments for both the LCFS and D4 RINs, as well as a different RD carbon intensity value.

Ultimately, the Argus Canada CFR cost may be considered more market driven as it uses their assessed CFR credit price.

6.6 Conclusion and recommendation

The methodology in the current CCA formula is reasonable and there are no warranted changes to the assumptions or inputs at this time.

[63] Argus Media – Methodology and Specifications Guide - last updated August 2025.

Appendix A - Glossary of terms

Abbreviation	Term
2024 formula	The cost of carbon adjustor implemented by the NBEUB on April 24, 2024
Argus	Argus Media
Bill No. 4	Bill No. 4 - An Act Respecting Petroleum Products Pricing
CARB	California Air Resources Board
CCA	Cost of carbon adjustor
CCM	Credit clearing mechanism
CFR	Clean Fuel Regulations
CI	Carbon intensity
CICC & CEMA	The Convenience Industry Council of Canada and the Canadian Energy Marketers Association
CO_2e	Carbon dioxide equivalent
cpl	Cents per litre
D4 RIN Pricing, D4 RIN, or D4	Diesel Renewable Identification Number
ECCC	Environment and Climate Change Canada
Gardner	Gardner Pinfold Consultants Inc
gCO_2e/MJ	Grams of carbon dioxide equivalent per megajoule of energy
GGIRCA	Greenhouse Gas Industrial Reporting and Control Act
GHG	Greenhouse gas
HDRD	Hydrogen-derived renewable diesel
HST	Harmonized sales tax
Initial Report	Grant Thornton – New Brunswick Energy and Utilities Board - Review of the Cost of Carbon Adjustor – February 28, 2023
IRAC or the Commission	Prince Edward Island Regulatory and Appeals Commission
LCFS	Low Carbon Fuel Standard
NBEUB or the Board	New Brunswick Energy and Utilities Board
NSEB	Nova Scotia Energy Board
NSUARB	Nova Scotia Utility and Regulatory Board

Abbreviation	Term
NYH	New York Harbour
PPPA or the Act	The Petroleum Products Pricing Act
PUBNL	The Newfoundland and Labrador Board of Commissioners of Public Utilities
Regulation	General Regulation - Petroleum Products Pricing Act
Signal or Signal Energy	Signal Energy Consulting
We, us, our, or Doane Grant Thornton	Doane Grant Thornton LLP

Appendix B – Documents relied upon

#	Document
1	New Brunswick Energy and Utilities Board – Petroleum Products Pricing Act – Section 13.2 - P-8.05.pdf (gnb.ca)
2	New Brunswick Energy and Utilities Board – Decision Matter No. 549 – June 13, 2023
3	New Brunswick Energy and Utilities Board – Decision Matter No. 566 – April 24, 2024
4	Government of Canada – What are the Clean Fuel Regulations? – https://www.canada.ca/en/environment-climate-change/services/managing-pollution/energy-production/fuel-regulations/clean-fuel-regulations/about.html - Accessed July 18, 2025.
5	Government of Canada – What are the Clean Fuel Regulations? – https://www.canada.ca/en/environment-climate-change/services/managing-pollution/energy-production/fuel-regulations/clean-fuel-regulations/compliance.html - Accessed July 18, 2025.
6	Government of Canada – Removing the consumer carbon price, effective April 1, 2025 - https://www.canada.ca/en/department-finance/news/2025/03/removing-the-consumer-carbon-price-effective-april-1-2025.html - Accessed July 18, 2025
7	Grant Thornton – New Brunswick Energy and Utilities Board - Review of the Cost of Carbon Adjustor – February 28, 2023 - 2023 02 28 - NBEUB - Cost of Carbon Adjustor (pdf).pdf
8	Telegraph-Journal – Clean fuel regulations now add 3.07 cents per litre to gas price - Clean fuel regulations now add 3.07 cents per litre to N.B. gas price | Telegraph-Journal
9	Legislative Assembly of New Brunswick – Bill No. 4 First Report of the Standing Committee on Law Amendments – May 6, 2025 - 20250506LawAmendments1.pdf – Accessed on September 22, 2025
10	Legislative Assembly of New Brunswick - An Act Respecting Petroleum Products Pricing - Legislative Assembly of New Brunswick – Accessed on September 22, 2025
11	Environment and Climate Change Canada – Clean Fuel Regulations 2024 Quarterly Credit Market Report – Q1 to Q4
12	Environment and Climate Change Canada – Clean Fuel Regulations - Clean Fuel Regulations – Accessed on September 19, 2025
13	Newfoundland & Labrador Board of Commissioners of Public Utilities - 2022-2023 Petroleum Products Pricing Review - January 17, 2023.
14	New Brunswick Energy and Utility Board – Current Petroleum Prices - New Brunswick Energy & Utilities Board - Current Petroleum Prices (nbeub.ca).- Accessed September 19, 2025.
15	Nova Scotia Utility and Review Board – Gasoline and Diesel Prices - Gasoline & Diesel Prices & Zone Map | Nova Scotia Utility and Review Board. - Accessed September 19, 2025
16	Newfoundland and Labrador Board of Commissioners of Public Utilities – Weekly Maximum Pricing by Zone - Board of Commissioners of Public Utilities. - Accessed September 19, 2025.
17	Prince Edward Island Regulatory and Appeals Commission – Current Petroleum Prices Current Petroleum Prices (irac.pe.ca). - Accessed September 19, 2025
18	Nova Scotia Energy Board – Review of the Cost of Carbon Adjustor Mechanism – Grant Thornton – April 12, 2023
19	Nova Scotia Petroleum Products Pricing Regulations – Accessed August 25, 2025
20	Nova Scotia Utility and Review Board – M10853 - June 28, 2023
21	Nova Scotia Utility and Review Board – Order 2024 NSUARB 111 - M10853 – June 26, 2024

#	Document
22	Nova Scotia Energy Board – Steve R. Murphy's Auto Services Ltd. Re 2024 NSUARB 215 Interim Order– M11978 – December 23, 2024
23	Signal Energy Consulting – Expert Report-NSEB Matter M11978-Wholesale Margin Review – April 23, 2025
24	Imperial Oil – Matter No.11978 Closing Submissions – August 27, 2025
25	Irving Oil – Matter No. 11978 Closing Submission – Augst 27, 2025
26	Newfoundland and Labrador Board of Commissioners of Public Utilities Media Release - July 6, 2023 - Microsoft Word - DRAFT Media Release for Price Adjustments July 6, 2023 (pub.nf.ca)
27	Newfoundland and Labrador Board of Commissioners of Public Utilities Order NO. P.P. 45 (2023) - July 5, 2023 - NEWFOUNDLAND AND LABRADOR (pub.nf.ca)
28	Newfoundland and Labrador Board of Commissioners of Public Utilities Order NO. P.P. 2 (2024) - January 10, 2024 - NEWFOUNDLAND AND LABRADOR (pub.nf.ca)
29	Prince Edward Island Regulatory and Appeals Commission – Review of the Pricing Model and Margins for Petroleum Products including the Clean Fuel Regulations – June 15, 2023 - Public-Notice-Petroleum-Margin-Review-June-15-2023.Final_.pdf (irac.pe.ca)
30	Gardner Pinfold Consultants Inc. – Petroleum Products Benchmark and Margin Review – May 2023 - Exhibit-C-1a-PEI-margin-review-report-2023-final.pdf (irac.pe.ca)
31	Gardner Pinfold Consultants Inc. – Petroleum Products Benchmark and Margin Review – Pricing formula using NYH as the benchmark price – July 2023 - Exhibite-C-5-The-pricing-formula-using-NYH-August-2-2023.pdf (irac.pe.ca)
32	Prince Edward Island Regulatory and Appeals Commission – Notice of Hearing – October 13, 2023 Public-Notice-Petroleum-Hearing.pdf (irac.pe.ca)
33	Prince Edward Island Regulatory and Appeals Commission – Order PC23-007 (2023) - December 7, 2023 - irac.pe.ca/wp-content/uploads/PC23-007.pdf
34	Signal Energy Consulting – Expert Report – NBEUB Matter PT-002-2025 - Wholesale Margin Review – June 13, 2025
35	New Brunswick Energy and Utilities Board – Decision Matter No. PT-002-2025 – September 26, 2025.
36	New Brunswick Energy and Utilities Board – Decision Matter No. PT-001-2025 – September 12, 2025
37	Argus Media – Argus Air Daily Environmental Commodity Markets Coverage – August 26, 2025
38	Statistics Canada – Start your engines: A primer on fuel ethanol - Start your engines: A primer on fuel ethanol - Statistics Canada – Accessed September 18, 2025.
39	Grant Thornton – New Brunswick Energy and Utilities Board Review of the Cost of Carbon Adjustor Mechanism – February 28, 2023 - 2023 02 28 - NBEUB - Cost of Carbon Adjustor (pdf).pdf – Accessed September 18, 2025
40	British Columbia - Low Carbon Fuel Standard Credit Market - Low Carbon Fuel Standard credit market - Province of British Columbia - Assessed on September 24, 2025
41	California Air Resources Board – Weekly LCFS Credit Transfer Activity Reports - Weekly LCFS Credit Transfer Activity Reports | California Air Resources Board – Accessed September 23, 2025.
42	Argus Media – Methodology and Specifications Guide - last updated August 2025

Appendix C – Current cost of carbon adjustor in New Brunswick

Matter 566 - Appendix A (Cost of Carbon Adjustor Formula - Modified)

Step 1 Determine the Clean Fuel Regulation credit price

	Units	Reference	Inputs	Source
California LCFS credit	USD / tonne	**A**	TBD	Note 1
California low carbon fuel intensity target	gCO2e/MJ	**B**	TBD	Note 2
California renewable diesel carbon intensity	gCO2e/MJ	**C**	TBD	Note 3
Difference	gCO2e/MJ	**D = B - C**		
California renewable diesel energy density	MJ / litre	**E**	34.25	Note 4
Conversion factor		**F**	1,000,000	Note 5
Exchange Rate (weekly)		**G**	TBD	Note 6
Low carbon fuel standard credit price	$CDN / litre	**H = A*D*E/F*G**		
D4 RIN Value	USD / US gallon	**I**	TBD	Note 7
Renewable diesel RIN eqivalence value	USD / US gallon	**J**	1.7	Note 8
Exchange Rate (weekly)		**G**	TBD	Note 6
Conversion US gallon to litres		**K**	3.78541	
D4 RIN Price	$CDN / litre	**L = I*J*G/K**		
Interim clean fuel credit price	$CDN / litre	**M = H + L**		

Step 2 Convert the credit price per litre calculated in Step 1 to a credit price per tonne

	Units	Reference	Inputs	
Clean Fuel Regulations liquid class reference carbon intensity	gCO2e/MJ	**N**	TBD	Note 9
Renewable diesel carbon intensity (Matter 566)	gCO2e/MJ	**O**	29	Note 10
Incremental carbon intensity	gCO2e/MJ	**P = N - O**		
Clean Fuel Regulations renewable diesel energy density	MJ / litre	**Q**	34.921	Note 11
Conversion factor		**F**	1,000,000	Note 12
CFR credit price per tonne	$CDN / tonne	**R = M/P/Q*F**		

Step 3 Apply the CFR adjustor from Step 2 by fuel type (ULSD & gasoline)

	Units	Reference	Gasoline	ULSD	
Clean Fuel Regulations default (baseline) carbon intensity	gCO2e/MJ	**S**	95.00	93.00	Note 13
Clean Fuel Regulations target	gCO2e/MJ	**T**	TBD	TBD	Note 14
Incremental carbon intensity	gCO2e/MJ	**U = S - T**			
Clean Fuel Regulations energy density	MJ / litre	**V**	34.69	38.65	Note 15
Conversion factor		**F**	1,000,000	1,000,000	Note 5
Cost of Carbon Adjustor	$CDN / litre	**W = R*U*V/F**			

Step 4 Calculate the credit price per tonne for compliance fund

	Units	Reference	Inputs	
CFR compliance fund price per tonne in 2022	$CDN / tonne	**X**	350.00	Note 16
Consumer price index, current year		**Y**	TBD	Note 17
Consumer price index, 2022		**Z**	151.2	Note 18
CFR compliance fund, price per tonne, current year		**AA = X*(Y/Z)**		

Step 5 **If the CFR credit cost per tonne at Step 4 is greater than the credit cost per tonne at Step 2, then the Cost of Carbon Adjustor is the amount(s) at Step 3. Otherwise, the Cost of Carbon Adjustor is the amount(s) at Step 7.**

Step 6 Apply the CFR adjustor from Step 4 by fuel type (ULSD & gasoline)

	Units	Reference	Gasoline	ULSD	
Clean Fuel Regulations default (baseline) carbon intensity	gCO2e/MJ	**S**	95.00	93.00	Note 13
Clean Fuel Regulations target	gCO2e/MJ	**T**	TBD	TBD	Note 14
Incremental carbon intensity	gCO2e/MJ	**U = S - T**			
Clean Fuel Regulations energy density	MJ / litre	**V**	34.69	38.65	Note 15
Conversion factor		**F**	1,000,000	1,000,000	Note 5
Cost of Carbon Adjustor for 10% compliance fund	$CDN / litre	**AB = AA*U*V/F**			

Step 7 Combined cost of carbon adjustor

	Units	Reference	Gasoline	ULSD
Percentage of compliance achieved from renewable diesel		**AC**	90%	90%
Percentage of compliance achieved from compliance fund		**AD**	10%	10%
Combined Cost of Carbon Adjustor		**AE = W*AC + AB*AD**		

	Notes
1	California Air Resources Board: Weekly LCFS Credit Transfer Activity Report, Average Price (All Non Zero Transfers) (weekly).
2	California Low Carbon Fuel Standard Regulation: Table 2. *LCFS Carbon Intensity Benchmarks for 2011 to 2030 for Diesel Fuel and Fuels Used as a Substitute for Diesel Fuel* (Page 55 of the Regulation) (current year).
3	California Air Resources Board: LCFS Pathway Certified Carbon Intensities, Soybean and Soybean Oil Feedstock for Renewable Diesel (RND) (weekly).
4	Argus Air Daily: Methodology and Specifications Guide, page 8, Energy density of renewable diesel (129.65 MJ/gal) / 3.7854 = 34.25 MJ/litre) (fixed).
5	Convert tonnes to gCO2e/MJ - divide by 1 million.
6	Weekly USD/$CDN exchange rate (Bank of Canada), corresponding to weekly LCFS Credit Transfer Price (weekly).
7	Weekly average biomass-based diesel (D4) RIN price (current year), Source: Argus Americas Biofuels, corresponding to weekly LCFS Credit Transfer Price (weekly).
8	US Code of Federal Regulations, Equivalence values for renewable fuel, §80.1415(b)(4) (fixed).
9	*Clean Fuel Regulations* , Schedule 1, Reference Carbon Intensity, Liquid class (current year).
10	NBEUB Decision - Matter 566 (fixed).
11	*Clean Fuel Regulations* , Schedule 2, Energy Density of Fuels (Item 10 – Hydrogenation-derived renewable diesel) (fixed).
12	Convert gCO2e/MJ to tonnes - multiply by 1 million.
13	*Clean Fuel Regulations* , Section 5(3), Baseline Carbon-Intensity (fixed).
14	*Clean Fuel Regulations* , Section 5(1), Fuel Carbon-Intensity Limits (current year).
15	*Clean Fuel Regulations* , Schedule 2, Energy Density of Fuels (Item 9 – Gasoline & Item 13 - Diesel) (fixed).
16	*Clean Fuel Regulations* , Section 118, Contribution to funding program (fixed).
17	Statistics Canada, Consumer Price Index, most recent calendar year (average of the twelve months).
18	Statistics Canada, Consumer Price Index, 2022 (fixed).

Appendix D – Illustrative calculation

NBEUB **Illustrative example**			Inputs **Calculations** Linked cell	
Step 1 - determine the clean fuels regulation credit price	**Units**	**Reference**	**Inputs**	**Source**
California low carbon fuels standard ("LCFS") credit	USD$/tonne	**A**	56.16	**[1]**
California low carbon fuels carbon intensity target	gCO2e/MJ	**B**	86.64	**[2]**
California renewable diesel carbon intensity	gCO2e/MJ	**C**	60.66	**[3]**
Difference	gCO2e/MJ	**D=B-C**	**25.98**	
California renewable diesel energy density	MJ/liter	**E**	34.25	**[4]**
Conversion factor		**F**	1,000,000	**[5]**
Exchange rate	CDN$:USD$	**G**	1.38	**[6]**
Low carbon fuels standard credit price	CDN$/liter	**H=A*D*E/F*G**	**0.07**	
D4 RIN value	USD$/US gallon	**I**	112.50	**[7]**
Renewable diesel RIN equivalence value	USD$/US gallon	**J**	1.70	**[8]**
Exchange rate	CDN$:USD$	**G**	1.3802	
Conversion US gallon to liter		**K**	3.79	
D4 RIN price	CDN$/liter	**L=I*J*G/K**	**69.73**	
Interim clean fuels regulations credit price	CDN$/liter	**M=H+L**	**69.80**	
Step 2 – convert the credit price per liter calculated in Step 1 to a credit price per tonne	**Units**	**Reference**	**Inputs**	**Source**
Clean fuels regulation liquid class reference carbon intensity	gCO2e/MJ	**N**	86.60	**[9]**
Clean fuels regulation renewable diesel default carbon intensity	gCO2e/MJ	**O**	29.00	**[10]**
Incremental carbon intensity	gCO2e/MJ	**P=N-O**	**57.60**	
Clean fuels regulation renewable diesel energy density	MJ/liter	**Q**	34.92	**[11]**
Conversion factor		**F**	1,000,000	**[12]**
CFR credit price per tonne	CDN$/tonne	**R=M/P/Q*F**	**34,701.80**	

Step 3 – apply the CFR adjustor from Step 2 by fuel type i.e. 1) ultra-low sulfur diesel and 2) gasoline.	Units	Reference	Gasoline	Diesel	Source
Clean fuels regulations default carbon intensity	gCO2e/MJ	S	95.00	93.00	[13]
Clean fuels regulation carbon target	gCO2e/MJ	T	88.50	86.50	[14]
Incremental	gCO2e/MJ	U=S-T	6.50	6.50	
Clean fuels regulation energy density	MJ/liter	V	34.69	38.65	[15]
Conversion factor		F	1,000,000	1,000,000	
Proposed Cost of Carbon Adjustor	CDN$/liter	**W=R*U*V/F**	**7.8247**	**8.7180**	

Step 4 – calculate credit price per tonne for compliance fund	Units	Reference	Inputs	Source
CFR compliance fund price per tonne in 2022	CDN$/tonne	X	350.00	[16]
Consumer price index current year		Y	163.70	[17]
Consumer price index 2022		Z	151.24	[18]
CFR compliance fund price per tonne in 2023		**AA=X*(Z/Y)**	**323.36**	

Step 5 - if the CFR credit cost per tonne at Step 4 is greater than the credit cost per tonne at Step2 , then the CCA is the amount(s) at Step 3, Otherwise, the CCA is the amount(s) at Step 7.

Step 6– apply the CFR adjustor from Step 4 by fuel type i.e. 1) ultra-low sulfur diesel and 2) gasoline.	Units	Reference	Gasoline	Diesel	Source
Clean fuels regulations default carbon intensity	gCO2e/MJ	S	95	93	[13]
Clean fuels regulation carbon target	gCO2e/MJ	T	88.5	86.5	[14]
Incremental carbon intensity	gCO2e/MJ	U=S-T	6.50	6.50	
Clean fuels regulation energy density	MJ/liter	V	34.69	38.65	[15]
Conversion factor		F	1,000,000	1,000,000	
Proposed Cost of Carbon Adjustor for 10% compliance fund	CDN$/liter	**AB = AA*U*V/F**	**0.0729**	**0.0812**	

Step 7 - combined cost of carbon adjustor	Units	Reference	Gasoline	Diesel	Source
Combined Cost of Carbon Adjustor					
Percentage of compliance achieved from renewable diesel		AC	90%	90%	
Percentage of compliance from compliance fund		AD	10%	10%	
Combined Cost of Carbon Adjustor	CDN$/tonne	**AE = W*AC+AB*AD**	**7.0496**	**7.8543**	

Notes	
[1] - California Air Resources Board ("CARB")	https://ww2.arb.ca.gov/resources/documents/weekly-lcfs-credit-transfer-activity-reports
[2] - California Air Resources Board ("CARB")	https://ww2.arb.ca.gov/sites/default/files/2020-07/2020_lcfs_fro_oal-approved_unofficial_06302020.pdf
[3] - California Air Resources Board ("CARB")	https://ww2.arb.ca.gov/resources/documents/lcfs-pathway-certified-carbon-intensities
[4] - Argus - Methodology and Specifications Guide	www.argusmedia.com
[5] - Convert tonnes to gCo2e/MJ - divide by 1,000,0000	
[6] - Bank of Canada - August 2025 Exchange Rate	www.bankofcanada.ca
[7] - Argus Air Daily	https://www.argusmedia.com/en/bioenergy/argus-americas-biofuels
[8] - Code of Federal Regulations (CFR)	https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-80/subpart-M/section-80.1415
[9] - Clean Fuel Regulations (SOR/2022-140)	https://laws-lois.justice.gc.ca/eng/regulations/SOR-2022-140/page-18.html#h-1360777
[10] - BC Approved Carbon Intensities - Current (average for RD)	https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/transportation/renewable-low-carbon-fuels/rlcf012_approved_carbon_intensities_current_11june2025.pdf
[11] - Clean Fuel Regulations (SOR/2022-140)	https://laws-lois.justice.gc.ca/eng/regulations/SOR-2022-140/page-19.html#h-1360785
[12] - Conversion of gCO2e/MJ to tonnes - multiply by 1,000,000	
[13] - Clean Fuel Regulations (SOR/2022-140)	https://laws-lois.justice.gc.ca/eng/regulations/SOR-2022-140/page-2.html#h-1358853
[14] - Clean Fuel Regulations (SOR/2022-140)	https://laws-lois.justice.gc.ca/eng/regulations/SOR-2022-140/page-2.html#h-1358853
[15] - Clean Fuel Regulations (SOR/2022-140)	https://laws-lois.justice.gc.ca/eng/regulations/SOR-2022-140/page-19.html#h-1360785
[16] - Clean Fuel Regulations	SOR-2022-140.pdf (justice.gc.ca)
[17] - Bank of Canada	Consumer price index - Bank of Canada
[18] - Bank of Canada	Consumer price index - Bank of Canada

Appendix E – Stakeholder consultations

The following table provides a summary of the industry consultations completed:

#	Company	Date of consultation
1	Advanced Biofuels	August 5th, 2025
2	Clark Oil Company	August 7th, 2025
3	Canadian Fuels Association	August 12th, 2025
4	Irving Oil	August 13th, 2025
5	Park Fuels	August 19th, 2025
6	Imperial Oil/Esso	September 3rd, 2025
7	Valero Energy Inc.	September 12th, 2025
8	Argus Media	September 22nd, 2025
9	Scholten Group	September 22nd, 2025
10	Couche-tard	September 29th, 2025

The following includes a list of parties that were contacted but consultation discussions were not completed prior to the date of this report:

#	Company
1	Green Coast Energy Ltd.
2	Groupe F. Dufresne
3	Harnois Energies
4	Kingston's Fuels Ltd.
5	M & F LeBlanc Oil
6	Michaud Petroleum
7	Parkland Fuel Corporation
8	Petroles Cadeko Inc.
9	Sobeys Capital Inc.
10	Suncor Energy Products Partnership
11	Taylor Petroleum (1985) Ltd.

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