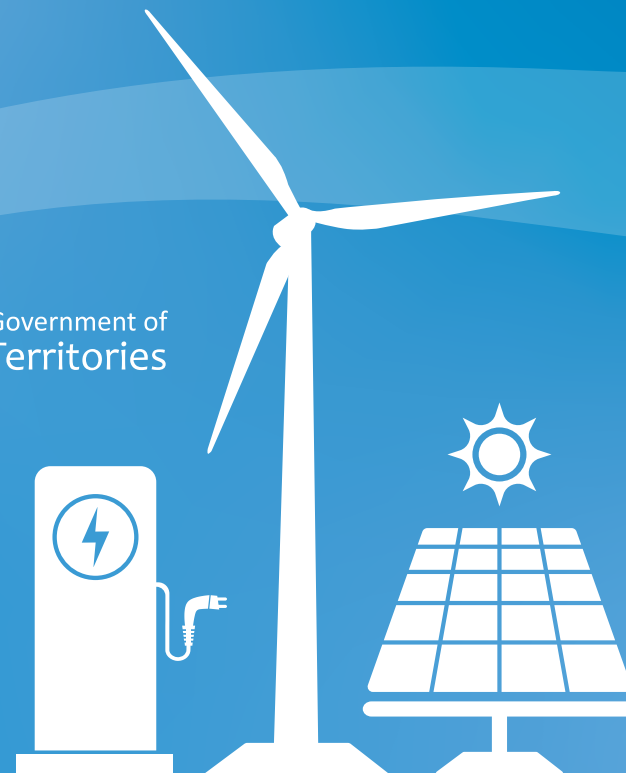




Government of  
Northwest Territories



**NWT CARBON TAX REPORT**  
**LE RAPPORT ANNUEL SUR LA TAXE SUR LE CARBON**  
**2023-2024**

*Le présent document contient la traduction française du sommaire et du message du ministre*



# Contents

- Message from the Minister of Finance .....1
- Message de la ministre des Finances .....2
- 1. Introduction .....3
  - Description of Carbon Tax and Rebates .....3
    - Northwest Territories Carbon Tax Offset System .....4
    - Northwest Territories Carbon Tax Offset System Changes .....5
  - Carbon Tax Administration .....6
  - COLO Administration .....6
- 2. Fiscal Year Results .....7
- 3. Measuring Movement towards a Less Carbon Intensive Economy .....14
  - Measuring Changes in Carbon Intensity in Households .....16
    - Northwest Territories Household Carbon Emission History .....16
  - Measuring Carbon Intensity in Industry .....17
    - Northwest Territories Industrial Carbon Emission History .....17
- Appendix .....20

# Message from the Minister of Finance

I am pleased to present the annual carbon tax report documenting the Northwest Territories carbon pricing results for the fiscal year ended March 31<sup>st</sup>, 2024.

Major changes were required in 2023 in the territory's carbon tax system to meet the revised federal carbon pricing benchmarks from April 1, 2023 to April 1, 2030. The main changes were to match federal carbon tax rate increases and ensure that we were not returning the carbon tax revenues into the economy in a way that negates the carbon price signal. This regrettably included eliminating the at-source carbon tax rebates on heating fuel, but we were faced with a singular choice: either we keep control of the carbon tax legislation by complying with federal benchmarks or Canada would apply its system.

Retaining the flexibility to design a 'made in the north' solution that reflects Northern priorities and circumstances offers the advantage that collectively we can continue to adapt our rebate programs in response to feedback from the public and from discussions within the Legislative Assembly, even though within the confines of the federal carbon pricing criteria.

For 2023-24 we used this flexibility to add a regional component to the Cost of Living Offset so that residents who live in areas with higher carbon-taxed fuel use would receive a higher Cost of Living Offset payment. We also listened to concerns about the new carbon tax burden for community governments and added an annual revenue-sharing grant to community governments that we hope will aid their efforts to adapt to climate change, reduce reliance on fossil fuel and support overall reduction of greenhouse gas emissions.

We are providing large emitters with an offset that does not run counter to the federal criteria but offers a customized, more flexible treatment of carbon tax for northern mining operations at different times in their lifecycle. This will allow this key industry to remain viable and competitive; both by maintaining certainty for existing operations and by ensuring prospective new entrants have some mitigation against otherwise overall higher costs of exploration and development.

Helping to mitigate the carbon tax burden for businesses and other organizations is more complicated because they incur different levels of carbon tax and options to reduce their fossil fuel use vary. We are tying support for business by returning carbon tax revenues to residents through the Cost of Living Offset that includes an amount for the expected consumer price increases resulting from businesses raising their prices because of the carbon tax. We are also continuing existing GNWT grant programs to help businesses and other non-government organizations reduce carbon-based fuel consumption.

I firmly believe that territory's carbon tax system is the best approach to adhere to the federally-imposed carbon pricing requirements in a way that best meets the needs of the Northwest Territories.



**Caroline Wawzonek**  
Minister of Finance

# Message de la ministre des Finances

J'ai le plaisir de présenter le rapport annuel sur la taxe sur le carbone, qui documente les résultats de la tarification du carbone aux Territoires du Nord-Ouest (TNO) pour l'exercice qui s'est terminé le 31 mars 2024.

D'importantes modifications ont dû être apportées au régime de tarification du carbone des TNO en 2023 afin de respecter le régime fédéral révisé de tarification du carbone, du 1er avril 2023 au 1er avril 2030. Comme principaux changements, nous avons haussé la taxe sur le carbone aux TNO pour égaler la hausse fédérale, et nous nous sommes assurés que les recettes de la taxe sur le carbone ne soient pas réinjectées dans l'économie de manière à annuler le signal de prix du carbone. Malheureusement, on compte parmi ces changements la suppression du remboursement de la taxe sur le carbone à la source pour le mazout de chauffage. Nous avons un choix à faire : soit les TNO gardaient le contrôle de la législation sur la taxe sur le carbone en respectant le régime fédéral soit le gouvernement fédéral appliquait son système aux TNO.

En gardant une marge de manœuvre et en mettant au point une solution « propre au Nord » qui tient compte des priorités et de la réalité ténnoise, nous pourrons, ensemble, continuer d'adapter nos programmes de remboursement en fonction des commentaires de la population et des discussions au sein de l'Assemblée législative, même si cela doit se faire dans les limites des critères fédéraux de tarification du carbone.

En 2023-2024, grâce à la marge de manœuvre dont nous disposons, nous avons ajouté une composante à la compensation du coût de la vie (CCV) pour que les résidents des régions où la consommation de mazout de chauffage est plus élevée reçoivent des versements de CCV plus importants. Nous avons également répondu aux préoccupations des administrations communautaires quant au fardeau de la nouvelle taxe sur le carbone, en leur octroyant une subvention annuelle de partage des revenus qui, nous l'espérons, les aidera dans leurs efforts d'adaptation au changement climatique, réduira leur dépendance aux combustibles fossiles et favorisera la réduction globale des émissions de gaz à effet de serre.

Nous offrirons aux grands émetteurs une compensation qui, sans aller à l'encontre du régime fédéral, offre un régime personnalisé et plus flexible de tarification du carbone pour soutenir les activités minières du Nord à différents moments de leur cycle de vie. Cette initiative permettra à ce secteur d'activité de demeurer viable et concurrentiel, à la fois en permettant à ces entreprises de continuer d'exister, et aux nouveaux exploitants potentiels de profiter de mesures d'atténuation, étant donné que les coûts généraux d'exploration et de développement sont plutôt élevés.

Il est plus compliqué d'atténuer le fardeau de la taxe sur le carbone pour les entreprises et les autres organismes, car ceux-ci payent différents montants de taxe, et les possibilités pour eux de réduire leur utilisation de combustibles fossiles varient. Nous soutenons les entreprises en redistribuant les recettes de la taxe carbone aux résidents au moyen de la compensation du coût de la vie qui comprend un montant destiné à couvrir l'augmentation prévue des prix à la consommation découlant de l'augmentation des prix par les entreprises en raison de la taxe carbone. Nous comptons également poursuivre les programmes existants de subventions visant à aider les entreprises et les autres organismes non gouvernementaux à réduire leur consommation de carburant à base de carbone.

Je crois fermement que le régime de taxation du carbone des TNO est la meilleure approche pour respecter les exigences de tarification du carbone imposées par le gouvernement fédéral et ainsi répondre au mieux aux besoins des Ténos.



**Caroline Wawzonek**  
Ministre des Finances

# 1. Introduction

April 1<sup>st</sup>, 2023 marked the first changes to the Northwest Territories carbon tax structure since its implementation on September 1<sup>st</sup>, 2019. The territorial carbon tax was introduced to meet the Government of the Northwest Territories' (GNWT) commitment on carbon pricing under the *Pan-Canadian Framework on Clean Growth and Climate Change* and fulfil the Department of Finance's assignment of Action Item 1.1 B (Implement NWT carbon pricing) under the *2019-2023 Climate Change Strategic Framework Action Plan*.

The original Northwest Territories carbon pricing plan was designed through discussions with the 18<sup>th</sup> Legislative Assembly, stakeholders, and the federal government. These discussions resulted in a carbon pricing design that met federal benchmark price and coverage requirements while recognising the barriers to reducing carbon fuel use in the territory. However, in August 2021, the federal government announced revised carbon pricing benchmarks for the period from April 1<sup>st</sup>, 2023 to April 1<sup>st</sup>, 2030, that included:

- Increasing the carbon price annually by \$15 a tonne of carbon dioxide equivalent emissions starting April 1<sup>st</sup>, 2023 (from the \$50 a tonne base rate in 2022), rising to \$170 a tonne on April 1<sup>st</sup>, 2030;
- Implementing guidelines to ensure that recycling carbon tax revenues back to residents and into the economy does not negate the price signal. Provinces and territories may continue to have their own systems, but these systems must maintain effective price signals. Rebate systems that negate the price signal will no longer meet the federal benchmark, except for rebates for community electrical generation that is not attached to the North American grid and aviation fuel used in the territories; and
- Imposing the federal carbon pricing system on jurisdictions that do not submit acceptable plans.

In 2023, the Northwest Territories Legislative Assembly passed amendments to the carbon tax legislation to ensure that the Northwest Territories carbon tax system would continue to meet federal carbon pricing benchmarks after April 1<sup>st</sup>, 2023.

The GNWT's carbon pricing approach attempts to reduce greenhouse gas emissions by encouraging carbon conservation and substitution while minimising the effect on the cost of living and avoiding the creation of additional barriers to economic development. The GNWT has made investments in alternative energy options for territorial residents and businesses a priority and expects to continue making alternative energy investments while working closely with the federal government, other Northwest Territories governments, residents, and businesses to provide communities with reliable, affordable alternatives to carbon-intensive fuels.

## Description of Carbon Tax and Rebates

Northwest Territories carbon tax rates have increased annually from \$20/tonne of greenhouse gas emissions starting September 1<sup>st</sup>, 2019 to \$65/tonne on April 1<sup>st</sup>, 2023 as required by the federal minimum national stringency standards (Table 1). Carbon tax is added to the retail fuel price at the point of purchase.

Carbon tax does not apply to the following:

- Indians and Indian Bands as defined in the *Indian Act (Canada)* when making purchases or taking delivery of fuels on NWT reserves,
- Fuel purchased by visiting military forces under the *Visiting Forces Act (Canada)*,
- Fuel use for aviation, and
- Fuel in sealed, pre-packaged containers of ten litres or less.

**Table 1: Carbon tax rates and effective dates**

Fuel Type	Effective Date				
	Sept 1 <sup>st</sup> , 2019 (\$20/tonne)	July 1 <sup>st</sup> , 2020 (\$30/tonne)	July 1 <sup>st</sup> , 2021 (\$40/tonne)	July 1 <sup>st</sup> , 2022 (\$50/tonne)	April 1 <sup>st</sup> , 2023 (\$65/tonne)
Gasoline (¢/litre)	4.7	7.0	9.4	11.7	14.31
Diesel (¢/litre)	5.5	8.2	10.9	13.7	17.38
Propane (¢/litre)	3.1	4.6	6.2	7.7	10.06
Naphtha (¢/litre)	5.1	7.7	10.2	12.8	14.65
Butane (¢/m <sup>3</sup> )	3.5	5.3	7.1	8.9	11.57
Marketable natural gas (¢/m <sup>3</sup> )	3.8	5.8	7.7	9.6	12.39
Aviation gasoline (¢/litre)	Exempt	Exempt	Exempt	Exempt	Exempt
Aviation jet fuel (¢/litre)	Exempt	Exempt	Exempt	Exempt	Exempt

Offsetting expenditures have been put in place to help reduce the carbon tax burden on taxpayers. Except for the Cost of Living Offset for individuals established under the *Income Tax Act*, other carbon tax offset expenditures are set out in the *Petroleum Products and Carbon Tax Regulations*.

### Northwest Territories Carbon Tax Offset System from September 1<sup>st</sup>, 2019 to March 31<sup>st</sup>, 2023

The GNWT provided the following carbon tax offsets between September 1<sup>st</sup>, 2019 to March 31<sup>st</sup>, 2023, as approved through the annual budget process:

- **Heating Fuel Rebate** – a 100 per cent point-of-sale rebate of carbon tax on heating fuel for residents, governments, and business entities other than prescribed large emitters.
- **Electrical Power Producers Rebate** – a 100 per cent point-of-sale rebate of carbon tax on fuel used by public utilities in electricity production for distribution to their customers.
- **Cost of Living Offset (COLO)** – a tax-free, non-income tested benefit for NWT residents that increases annually in step with carbon tax rate increases. The COLO is administered by the Canada Revenue Agency on behalf of the GNWT and paid quarterly to households and individuals on a benefit year that runs from July to June.

The Cost of Living Offset (COLO) is an estimate of the average household carbon tax burden paid directly on fuel or indirectly when businesses pass the tax to consumers through increased prices. Although the COLO is not directly tied to the amount of carbon tax collected it is an expenditure related to the carbon tax. Annual COLO benefits were paid to individuals and families as follows:

- 2019-20 – \$104 for an adult and \$120 a child;
- 2020-21 – \$156 for an adult and \$180 a child;
- 2021-22 – \$208 for an adult and \$240 a child;
- 2022-23 – \$260 for an adult and \$300 a child.

**Large Emitters Offset** – large emitters are prescribed in the Petroleum Products and Carbon Tax Regulations, as determined by the Minister of Finance. During the period from September 1<sup>st</sup>, 2019 to March 31<sup>st</sup>, 2023, three designated large emitters (Ekati diamond mine, Diavik diamond mine, and Gahcho Kué diamond mine) received large emitter carbon tax offsets comprised of two elements:

- Large emitter rebates: Monthly rebates of 72 per cent of the total carbon tax paid by the large emitter during the month, and
- Large Emitter Greenhouse Gas Emissions Reduction Grants: 12 per cent of annual total carbon tax paid by each large emitter was set aside by the GNWT in a special individual account, from which a prescribed large emitter could apply for grants to fund its greenhouse gas emission reducing investment projects. Grant guidelines require approved projects to reduce greenhouse gas emissions by at least 5 per cent relative to a baseline.

**Northwest Territories Carbon Tax Offset System Changes Starting April 1<sup>st</sup>, 2023**

Effective April 1<sup>st</sup>, 2023, Northwest Territories carbon tax mitigation measures required changes to meet tightened federal carbon pricing benchmarks for the April 2023 to March 2030 period. Only two measures were unchanged after April 1<sup>st</sup>, 2023: the 100 per cent rebate for carbon tax paid on fuel used for electrical generation for community distribution and the carbon tax exemption for aviation fuel. The following describes mitigation measures that were revised or eliminated.

- The point-of-sale carbon tax rebate on heating fuels was removed. As a direct consequence of the addition of the carbon tax on heating fuel, regional COLO amounts were added to the existing base COLO. Regional COLO amounts address the higher carbon tax burden faced by residents living in areas with higher home heating fuel use.
- Communities are grouped into three geographic zones based on average annual carbon tax paid for household heating fuel. Table 2 shows the total COLO amounts for each zone.

**Table 2: Cost of Living Offset by zone for \$65 a tonne of carbon dioxide equivalent (CO<sub>2</sub>e)**

Zone A – Low Fuel Use		Zone B – Moderate Fuel Use		Zone C – High Fuel Use
<b>COLO Benefit Adult: \$441 Under 18 years: \$493</b>		<b>COLO Benefit Adult: \$483 Under 18 years: \$535</b>		<b>COLO Benefit Adult: \$558 Under 18 years: \$610</b>
<i>Communities</i>				
Colville Lake	Hay River	Aklavik	Jean Marie River	Norman Wells
Dettah	Kakisa	Behchokò	Łutselk’e	Paulatuk
Enterprise	Kát’odeeche	Délı̄neFort Liard	Nahanni Butte	Sachs Harbour
Fort Good Hope	Ndilò	Fort McPherson	Sambaa K’e	Tulita
Fort Resolution	Wrigley	Fort Providence	Tsiigehtchic	Ulukhaktok
Fort Smith	Yellowknife	Fort Simpson	Tuktoyaktuk	
		Gamètì	Wekweètì	
		Inuvik	Whatì	



- The Large Emitter Offset was replaced with a large emitter facility specific program that set a baseline fuel consumption level at each facility as a proxy for emissions and provides a 72 per cent rebate of carbon tax paid on diesel fuel to the baseline. Facility baselines were set as the average fuel consumption for the previous three years. The Large Emitter Greenhouse Gas Emissions Reduction Grant Program that was part of the original large emitter offset was discontinued; however, unused funds in each large emitter’s account remain available to the emitter until March 31<sup>st</sup>, 2028 under the existing policy guidelines.
- A new program of community government sharing grants established under the *Petroleum Products and Carbon Tax Act* allocates 10 per cent of net GNWT carbon tax revenues to be shared among community governments. The allocation formula includes a base amount of 0.5 per cent of the net carbon tax revenue and the remaining funds allocated per capita. Annual community grants are paid after the public accounts for the fiscal year are audited.

## Carbon Tax Administration

Carbon tax is levied on the final consumer and is administered through the fuel tax system by the Department of Finance’s Taxation, Corporate Credit and Collections Division.

Administration costs used to determine community government sharing grants are the salary, benefits and northern allowance of a Tax Officer (Pay Range 11, Step 8) with a total annual cost of \$112,700.

Businesses that sell fuel in the territory can apply to become GNWT fuel tax collectors. Fuel tax collectors also collect carbon tax from purchasers at the time of sale or importation and remit both taxes to the GNWT with their monthly fuel and carbon tax return. No fines or charges have been levied against fuel tax collectors under the *Petroleum Products and Carbon Tax Act* or *Regulations* since the carbon tax was introduced.

## COLO Administration

The Canada Revenue Agency issues quarterly COLO payments on behalf of the GNWT in July, October, January, and April to territorial residents who filed an income tax return for the previous year. COLO payments for families are combined.

COLO payments vary in each quarter but in general for the 2023-24 benefit year COLO payments were made to 22,530 households, comprising 13,529 single recipients with no children, 5,461 couples with no children, 2,097 single parent families and 1,443 two parent families.

## 2. Fiscal Year Results

The following tables provide 2023-24 carbon tax results for the fiscal year April 1<sup>st</sup>, 2023 to March 31<sup>st</sup>, 2024 along with historical carbon tax data for comparison.

Table 3 shows fuel volumes since the carbon tax was introduced on September 1<sup>st</sup>, 2019. Given the small size of the Northwest Territories economy and only four full years of data, conclusions about fuel consumption trends cannot be made using year-over-year comparisons of volume changes since the carbon tax was introduced. The size of the mines can distort overall year-over-year changes; as an example, total diesel heating fuel consumption declined 1.6 per cent from 2021-22 to 2023-24; however, after removing the 23.3 per cent decline in mine diesel heating fuel consumption, the increase for the rest of the economy was 10.7 per cent.

**Table 3: Carbon tax volumes: 2019-20 to 2023-24<sup>1</sup>**

Total volumes (thousands)	2019-20	2020-21	2021-22	2022-23	2023-24
Gasoline (litres)	29,917	44,982	45,586	45,667	43,406
Aviation gasoline (litres) <sup>2</sup>	723	1,427	1,571	1,558	1,345
Aviation gasoline turbo jet (litres) <sup>2</sup>	18,586	34,987	43,159	50,786	55,577
Motive and non-motive diesel (litres)	133,292	191,150	233,764	240,488	265,547
Natural gas (m <sup>3</sup> )	283	596	409	463	280
Natural gas heating (m <sup>3</sup> )	442	592	1,010	2,769	6,394
Railway diesel (litres)	63	114	118.734	98.127	70
Diesel for heating (litres)	57,624	79,831	71,414	71,899	70,299
Propane (litres)	906	2,226	1,942	1,562	1,339
Propane for heating (litres)	20,811	26,207	23,249	21,537	27,038
Naphtha (litres)	-	11	8	10	8
Mine volumes (thousands) (included in total volumes above)	2019-20	2020-21	2021-22	2022-23	2023-24
Diesel (litres)	99,089	216,485	167,141	167,466	164,064
Diesel for heating (litres)	18,832	26,919	25,749	23,331	19,762

Note:

<sup>1</sup> Although a fiscal year is April 1<sup>st</sup> to March 31<sup>st</sup>, 2019-20 volumes capture consumption only for September 1<sup>st</sup>, 2019 (the carbon tax effective date) to March 31<sup>st</sup>, 2020.

<sup>2</sup> Aviation fuel is included for information but is exempt from the territorial carbon tax.

Table 4 shows gross carbon tax revenues and offsets since the carbon tax was introduced on September 1<sup>st</sup>, 2019. Carbon tax revenue for 2023-24 was \$68.7 million, \$6.0 million above the 2023-24 Main Estimates projection. Carbon tax revenues may increase despite volume declines because carbon tax rates increase annually.

The \$14 million in net carbon tax revenue is considered general revenue to be allocated among GNWT priorities. Since one of the GNWT's priorities is to reduce greenhouse gas emissions, residual carbon tax revenue can notionally be attributed to program and capital expenditures used to reduce territorial emissions.

**Table 4: Carbon tax revenue: 2019-20 to 2023-24<sup>1,2</sup>**

Gross carbon tax revenues (thousands of dollars)	2019-20	2020-21	2021-22	2022-23	2023-24
Gasoline	1,406	2,890	4,012	5,086	6,211
Motive and non-motive diesel	7,331	14,495	23,902	31,827	46,598
Natural gas	11	32	30	42	35
Natural gas for heating	17	31	73	254	792
Rail	4	9	12	13	12
Diesel for heating	3,169	6,007	7,302	9,468	12,218
Propane	28	94	113	115	135
Propane for heating	645	1,107	1,348	1,617	2,720
Naphtha	-	0.9	0.8	1.2	1.2
<b>A. Total gross carbon tax revenues</b>	<b>12,611</b>	<b>24,666</b>	<b>36,793</b>	<b>48,423</b>	<b>68,722</b>
Carbon tax offsets (thousands of dollars)	2019-20	2020-21	2021-22	2022-23	2023-24
Carbon tax rebate for heating fuel (non-large emitters)	2,364	5,929	7,940	10,750	-
Large emitter rebate	4,670	8,577	14,248	17,914	25,370
Carbon tax rebate for fuel used in electrical generation for community distribution	583	1,379	1,808	3,461	9,757
<b>B. Total carbon tax offsets</b>	<b>7,616</b>	<b>15,885</b>	<b>23,996</b>	<b>31,427</b>	<b>35,127</b>
<b>C. Net carbon tax revenue reported in Public Accounts (Lines A – B)</b>	<b>4,994</b>	<b>8,782</b>	<b>12,797</b>	<b>16,298</b>	<b>33,595</b>

Other carbon tax revenue recycling	2019-20	2020-21	2021-22	2022-23	2023-24
D. Cost of living offset (COLO)	4,116	6,511	8,668	10,889	17,989
<b>E. Carbon tax recycling before community government grants (Lines B + D)</b>	<b>11,733</b>	<b>22,396</b>	<b>32,664</b>	<b>43,014</b>	<b>53,116</b>
<b>F. Net carbon tax revenue before sharing with community governments (Lines A – E)</b>	<b>878</b>	<b>2,270</b>	<b>4,129</b>	<b>5,409</b>	<b>15,606</b>
G. Administration costs	-	-	-	-	113
H. Net carbon tax after administration costs	878	2,270	4,129	5,409	15,493
I. Community government sharing grants (10% x Line H)	-	-	-	-	1,549
<b>Net carbon tax revenue after community government grants (Lines H – I)</b>	<b>878</b>	<b>2,270</b>	<b>4,129</b>	<b>5,409</b>	<b>13,944</b>

Notes:

<sup>1</sup> Gross tax revenues are reduced for Public Account reporting by the carbon tax rebates as these are considered tax concessions rather than expenditures under public finance accounting standards. However, for budgeting purposes, all carbon tax mitigation measures are considered expenditures and are approved by the Legislative Assembly.

<sup>2</sup> Although a fiscal year is April 1<sup>st</sup> to March 31<sup>st</sup>, 2019-20 volumes only capture consumption from September 1<sup>st</sup>, 2019 (the carbon tax effective date) to March 31<sup>st</sup>, 2020.

Table 5 compares carbon tax revenues from different sources with revenue returned through carbon tax expenditures to mitigate the carbon tax burden (carbon tax offsets). Large emitter grant accounts are included in the table as expenditures although none of the large emitters have drawn down account funds for greenhouse gas emission-reducing investments. The GNWT had a notional \$14.0 million above carbon tax recycling revenue to invest in 2023-24 greenhouse gas emission-reducing projects.

**Table 5: 2019-20 to 2023-24 Carbon tax revenues and expenditures (millions of dollars)<sup>1</sup>**

<b>NWT carbon tax revenues</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Residents, small business and governments</b>					
Diesel non-motive and diesel, propane and natural gas for heating	2.8	5.8	8.0	10.1	22.6
Community government heating	0.14	0.14	0.3	0.7	0.3
Motive diesel	1.7	3.8	4.6	7.5	7.5
Gasoline	1.4	2.9	4.0	5.1	6.2
<b>Large emitters</b>					
Facility fuel use	6.5	11.9	19.7	24.9	31.9
<b>Other items</b>					
Railway diesel and non-heating propane and natural gas	0.04	0.1	0.2	0.2	0.2
<b>Total revenues</b>	<b>12.6</b>	<b>24.7</b>	<b>36.8</b>	<b>48.4</b>	<b>68.7</b>
<b>Rebate and benefit expenditures</b>					
<b>Residents, small business and governments</b>					
Carbon tax rebate on heating fuels	2.4	5.9	7.9	10.8	-
Annual rebate to electricity producers	0.6	1.4	1.8	3.5	9.8
COLO benefit	4.1	6.5	8.7	10.9	18.0
<b>Large emitters</b>					
Large emitter rebates	4.7	8.6	14.2	17.9	25.3
Large emitter grant accounts	0.7	1.7	2.1	3.4	-
Community government sharing grants	-	-	-	-	1.5
<b>Other items</b>					
NWT carbon tax and benefit administration	0.3	0.3	0.4	0.4	0.1
<b>Total expenditures</b>	<b>12.8</b>	<b>24.4</b>	<b>35.2</b>	<b>46.8</b>	<b>53.2</b>
<b>Remaining Carbon Tax Revenue</b>	<b>(0.2)</b>	<b>0.3</b>	<b>1.6</b>	<b>1.6</b>	<b>14.0</b>

Note:

<sup>1</sup> Table 5 will not match Public Accounts reporting because administration expenses, large emitter grant accounts and carbon tax rebates shown in budget documents as expenses are not reported as expenses in Public Accounts. Administration expenses from 2019-20 to 2022-23 include Canada Revenue Agency COLO administration charges. Starting 2023-24 the Canada Revenue Agency does not charge to administer the COLO.

Individual large emitter accounts hold 12 per cent of all carbon tax paid by large emitters before 2023-24. Large emitters can apply to use these funds for greenhouse gas emission reducing investments in accordance with the Large Emitter Grant Policy<sup>1</sup>. Table 6 shows accumulated fiscal year-end grant balances. None of the large emitters had accessed their grant accounts as of March 31<sup>st</sup>, 2024. However, in July 2024, the Ekati diamond mine operator was granted \$484,234 after meeting the Policy's eligibility criteria with an Information Technology and Communications Methanol and Solar Project.

**Table 6: Large emitter grant account balances<sup>1</sup>**

	As of Mar 31 <sup>st</sup> , 2020	As of Mar 31 <sup>st</sup> , 2021	As of Mar 31 <sup>st</sup> , 2022	As of Mar 31 <sup>st</sup> , 2023
<b>Gahcho Kué Diamond Mine</b>	\$201,168	\$595,511	\$1,144,626	\$2,088,576
<b>Diavik Diamond Mine</b>	\$336,862	\$1,006,075	\$1,879,931	\$3,296,767
<b>Ekati Diamond Mine</b>	\$129,728	\$446,644	\$1,146,260	\$2,182,597
<b>Total</b>	<b>\$667,758</b>	<b>\$2,048,230</b>	<b>\$4,170,817</b>	<b>\$7,567,940</b>

Note:

<sup>1</sup> Until April 1<sup>st</sup> 2023, Imperial Oil Resources NWT Limited was also a prescribed large emitter but did not qualify for grant balances.

Revisions to the Northwest Territories carbon tax system starting April 1<sup>st</sup>, 2023 included sharing 10 per cent of net carbon tax revenue with community governments using a base plus per capita formula to distribute the funds. The 2023-24 community government sharing grant allocation among the 33 Northwest Territories communities is shown in Table 7.

**Table 7: 2023-24 Community government sharing grants (thousands)**

	Community	Community Government	Allocation	Grant
1	Aklavik	Council of the Hamlet of Aklavik	1.8%	\$28
2	Behchokò	Community Government of Behchokò	4.3%	\$67
3	Colville Lake	Behdzi Ahda" First Nation	0.8%	\$12
4	Déłıne	Déłıne Got'ıne Government	1.7%	\$26
5	Dettah	Yellowknives Dene First Nation	0.9%	\$14
6	Enterprise	Council of the Hamlet of Enterprise	0.7%	\$11
7	Fort Liard	Council of the Hamlet of Fort Liard	1.5%	\$23
8	Fort McPherson	Council of the Hamlet of Fort McPherson	1.9%	\$29
9	Fort Providence	Council of the Hamlet of Fort Providence	1.8%	\$28
10	Fort Resolution	Council of the Hamlet of Fort Resolution	1.5%	\$23
11	Fort Simpson	Council of the Village of Fort Simpson	2.8%	\$43
12	Fort Smith	Council of the Town of Fort Smith	5.3%	\$82
13	Gamètı	Community Government of Gamètı	1.0%	\$15

<sup>1</sup> [https://www.fin.gov.nt.ca/sites/fin/files/resources/large\\_emitters\\_ghg\\_reducing\\_investment\\_grant\\_policy\\_jan\\_26\\_2020.pdf](https://www.fin.gov.nt.ca/sites/fin/files/resources/large_emitters_ghg_reducing_investment_grant_policy_jan_26_2020.pdf)

	Community	Community Government	Allocation	Grant
14	Hay River	Council of the Town of Hay River	7.5%	\$116
15	Inuvik	Council of the Town of Inuvik	6.4%	\$99
16	Jean Marie River	Ttsets'ehk'edeli First Nation	0.7%	\$11
17	Kakisa	Ka'a'gee Tu First Nation	0.6%	\$9
18	K'asho Got'ine	K'asho Got'ine Charter Community Council	1.7%	\$26
19	Kat'odeeche	Kat'odeeche First Nation	1.1%	\$17
20	Łutselk'e	Łutselk'e Dene Band	1.2%	\$19
21	Nahanni Butte	Nahanni Butte Dene Band	0.7%	\$11
22	Norman Wells	Council of the Town of Norman Wells	1.8%	\$28
23	Paulatuk	Council of the Hamlet of Paulatuk	1.1%	\$17
24	Sachs Harbour	Council of the Hamlet of Sachs Harbour	0.7%	\$11
25	Sambaa K'e	Sambaa K'e Dene Band	0.7%	\$11
26	Tsiigehtchic	Tsiigehtchic Charter Community Council	0.9%	\$14
27	Tuktoyaktuk	Council of the Hamlet of Tuktoyaktuk	2.5%	\$39
28	Tulita	Council of the Hamlet of Tulita	1.5%	\$23
29	Ulukhaktok	Council of the Hamlet of Ulukhaktok	1.4%	\$22
30	Wekweètì	Community Government of Wekweètì	0.8%	\$12
31	Whatì	Community Government of Whatì	1.5%	\$23
32	Wrigley	Pehdzeh Ki First Nation	0.7%	\$11
33	Yellowknife	Council of the City of Yellowknife	40.6%	\$629
	<b>Total<sup>1</sup></b>		<b>100.1%</b>	<b>\$1,551</b>

<sup>1</sup> Total community government grant does not match Table 4 Line 1 due to rounding.

The GNWT does not have a policy that ensures that carbon tax revenue is revenue neutral and used only to mitigate the effect of the carbon tax on economy and for programs that reduce greenhouse gas emissions. After the Table 4 carbon tax offsets are deducted from carbon tax revenues, the remaining \$14.0 million net carbon tax revenues are included in regular revenues and allocated based on GNWT spending priorities. However, the \$14.0 million net carbon tax revenue can be notionally attributed to the GNWT's \$12.3 million 2023-24 greenhouse gas emission reducing projects, including:

- \$2.74 million contribution to the Arctic Energy Alliance consisting of:
  - core funding to support operations,
  - rebate and incentive programming for residents and business to incorporate renewable energy systems,
  - funding to subsidize the cost of home energy audits, and
  - advisory services on the implementation of biomass projects;
- \$2.152 million for the Energy Action Plan (Department of Infrastructure) consisting of:
  - programming to support community energy planning,
  - programming to support low-income residents to address energy poverty,
  - rebate programming for the purchase of electric vehicles and bicycles, and
  - other programming that supports the GNWT Energy Strategy;
- \$0.47 million for additional energy programming including:
  - contributions to NT Energy to explore energy efficiency projects,
  - preliminary planning for the Fort Providence Transmission Line, and
  - financial support for Aurora Research Institute, the Gwich'in Development Corporation Clean Energy Plan, and Samba K'e solar.
- \$3.7 million for the Capital Asset Retrofit Fund to perform GNWT facility energy efficiency upgrades;
- \$1.3 million as the GNWT contribution to the Investing in Canada Infrastructure Program for repairs to the Taltson and Snare hydro facilities and planning for Fort Providence and Kakisa hydro facilities;
- \$48,000 contribution to the Climate Change Preparedness in the North program (Department of Environment and Climate Change); and
- \$1.873 million for operational costs associated with advancing overall energy initiatives, including the GNWT Energy Strategy.

The GNWT also received \$13.4 million in federal funding in 2023-24 under the Low Carbon Economy Leadership Fund, Climate Change Preparedness in the North program and the Cumulative Impact Monitoring Program for projects that contribute to reducing greenhouse gas emissions in the territory. Expenditures for other climate change adaptation programs and investments in energy-related systems are reported in the Climate Change Action Plan and Energy Action Plan annual reports.



### 3. Measuring Movement Towards a Less Carbon Intensive Economy

Measuring the ability of the Northwest Territories carbon tax to reduce carbon emissions is complicated by the many variables affecting carbon fuel consumption and the amount of time series data required to distinguish the effect of the carbon tax introduction with other factors. Other factors, such as changing retail fuel prices, weather and economic activity, can influence fuel consumption and make it difficult to isolate carbon tax effects without many years of data.

This report uses data from Statistics Canada for studying changes in greenhouse gas emissions because the data includes greenhouse gas emissions from all sources. Several other reputable data sources are available to measure specific greenhouse gas emissions and can be used to compare trend lines.

Table 8 estimates annual fiscal year (April to March) Northwest Territories carbon tax emissions since the introduction of the carbon tax on September 1<sup>st</sup>, 2019.

**Table 8: Estimated Northwest Territories greenhouse gas emissions from carbon tax data**

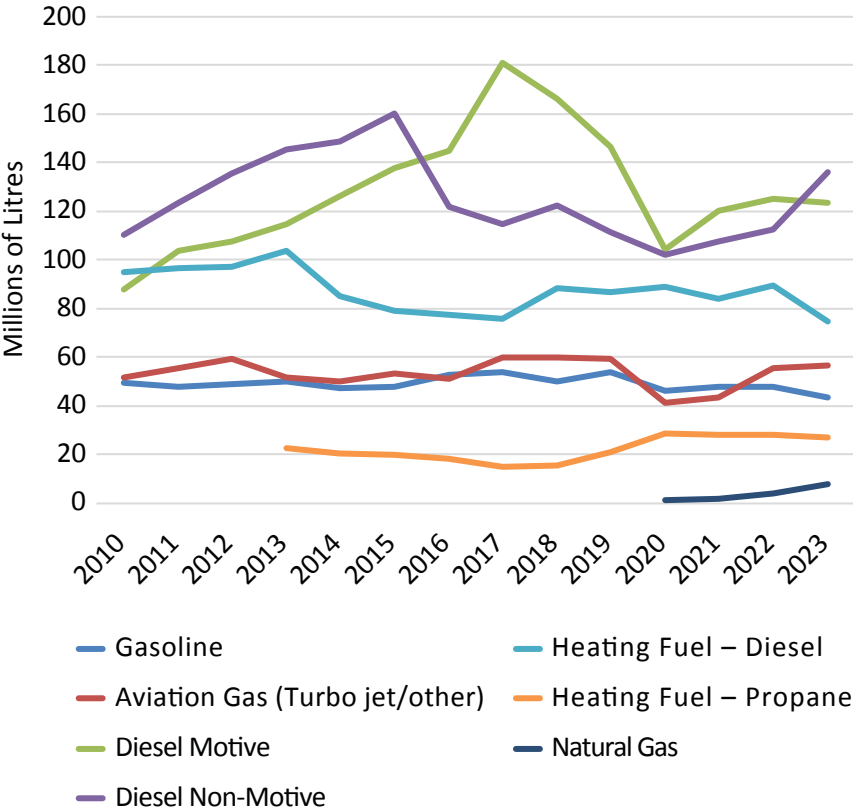
Type of Fuel	2023-24 Fuel volume	CO <sub>2</sub> e	September 1 <sup>st</sup> , 2019 to March 31 <sup>st</sup> , 2020 emissions (kilotonnes)	April 1 <sup>st</sup> , 2020 to March 31 <sup>st</sup> , 2021 emissions (kilotonnes)	April 1 <sup>st</sup> , 2021 to March 31 <sup>st</sup> , 2022 emissions (kilotonnes)	April 1 <sup>st</sup> , 2022 to March 31 <sup>st</sup> , 2023 emissions (kilotonnes)	April 1 <sup>st</sup> , 2023 to March 31 <sup>st</sup> , 2024 emissions (kilotonnes)
Gasoline (litres)	43,406,244	2.511680 kg/l	75	113	114	115	109
Aviation gas (litres)	1,345,451	2.488540 kg/l	2	4	4	4	3
Aviation gas turbo jet (litres)	55,577,394	2.488540 kg/l	46	87	107	126	138
Motive and non-motive diesel (litres)	268,107,340	2.708936 kg/l	361	522	633	651	726
Natural gas (m <sup>3</sup> )	279,722	1.912355 kg/m <sup>3</sup>	1.0	1.0	0.8	0.9	1
Natural gas heating (m <sup>3</sup> )	6,393,776	1.912355 kg/m <sup>3</sup>	1.0	1.0	1.9	5.3	12
Railway diesel (litres)	70,069	2.708936 kg/l	0	0	0.3	0.3	0
Diesel for heating (litres)	70,298,734	2.708936 kg/l	156	216	193	195	190
Propane (litres)	1,338,923	1.547859 kg/l	1	3	3	2	2
Propane for heating (litres)	27,037,602	1.547859 kg/l	32	41	36	33	42
Naphtha (litres)	8,079	2.254503 kg/l	0	0	0	0	0
			<b>676</b>	<b>988</b>	<b>1,095</b>	<b>1,133</b>	<b>1,224</b>

Source: NWT Finance

No conclusions can be derived from Table 8 about the effectiveness of the carbon tax in lowering greenhouse gas emissions because correlation is not the same as causation. An increasing carbon tax rate is expected to provide an incentive to reduce carbon-based fuel consumption; however, in the short term the effects will be difficult to discern from other factors. For example, during 2019-2020 and 2020-21 the economic disruption caused by the COVID-19 pandemic and the temporary closing of one diamond mine caused fuel consumption to decrease, and making the 2021-22 and 2022-23 consumption increases appear more significant than they otherwise would be.

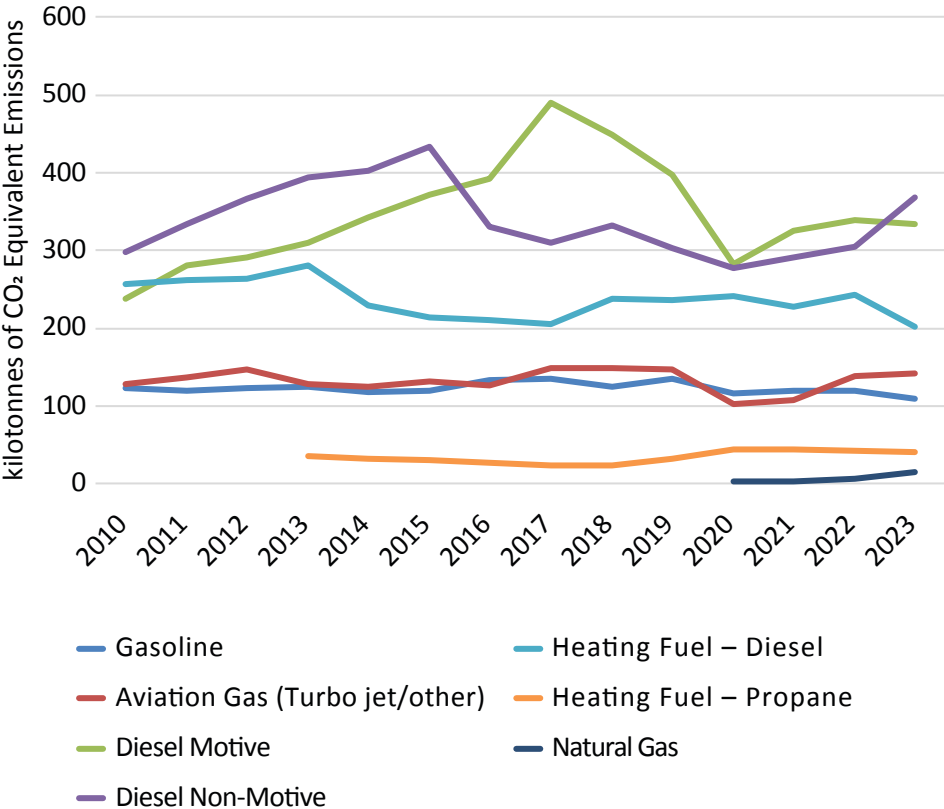
Figures 1 and 2 show the trends in Northwest Territories fuel consumption from fuel tax data and emission levels since 2010 on a calendar year basis. Figure 1 suggests that propane used for heating may be replacing diesel heating fuel use. Wood pellets may also be replacing other carbon-taxed fuels for heating but since wood pellets are not taxed, this data is not collected through the carbon tax system, even though its use contributes to greenhouse gas emissions.

**Figure 1: Northwest Territories fuel consumption, 2010 to 2023 calendar year**



Source: NWT Finance

**Figure 2: Northwest Territories emissions by fuel source, 2010 to 2023 calendar year**



Source: NWT Finance

# Measuring Changes in Carbon Intensity in Households

Household carbon intensity is measured in terms of household greenhouse gas emissions per person. Reductions in household carbon intensity following the implementation of the carbon tax will be compared in a ratio to a baseline of the average carbon intensity between 2009 and 2019. A ratio less than one will indicate improvement because the annual carbon intensity is below the medium-term average; a ratio greater than one will indicate deterioration as the annual carbon intensity would be above the medium-term average. Since Statistics Canada data for household carbon emissions is published with a two-year delay, it will be a few years before an analysis of the carbon tax’s effect on Northwest Territories carbon taxed fuel consumption is feasible. Analysing the immediate effects of the carbon tax on greenhouse gas emissions will also be complicated by the change in household behaviour when public health restrictions were in place during the 2020-2021 COVID-19 pandemic.

## Northwest Territories Household Carbon Emission History

Table 9 shows the annual emissions attributed to households, the annual July 1<sup>st</sup> Northwest Territories population, and the derived household emissions per capita. Population has increased slightly while carbon emissions continue to trend lower and as a result, per capita carbon emissions declined from 2009 to 2021. While COVID-19 pandemic lockdowns could be a partial cause of the 2020 and 2021 reductions, it is still a continuation of a lower per capita emission trend.

Over the 2009 to 2021 period, the average Northwest Territories household greenhouse gas emissions of 3,671 kilograms per person was 69 kilograms per person lower than Canadian average household greenhouse gas emissions. Average Northwest Territories household greenhouse gas emissions were lower than the Canadian average despite a colder climate and more heating days because shelters are smaller (less square footage to heat) and better insulated. In addition, the average Northwest Territories resident drives less than the Canadian average.

**Table 9: Carbon Intensity, Northwest Territories households**

Year	Household CO <sub>2</sub> e emissions (kilotonnes)	Population (number of people)	Carbon intensity (tonnes per person)	Carbon Intensity Ratio (ratio between carbon intensity and the 2009-2021 average)
2009	193	43,171	4.5	1.2
2010	164	43,292	3.8	1.0
2011	185	43,493	4.3	1.2
2012	157	43,624	3.6	1.0
2013	152	43,774	3.5	0.9
2014	177	43,851	4.0	1.1
2015	179	44,247	4.0	1.1
2016	156	44,624	3.5	0.9
2017	133	44,656	3.0	0.8
2018	140	44,536	3.1	0.8
2019	146	44,442	3.3	0.9
2020	128	44,504	2.9	0.8
2021	124	44,579	2.8	0.8
<b>Average</b>	<b>156</b>	<b>44,061</b>	<b>3.6</b>	

Sources:  
 Statistics Canada  
 Tables 38-10-0097-01  
 and 17-10-0005-01

# Measuring Carbon Intensity in Industry

This report defines industry as all economic agents except households. The carbon intensity of industry is measured as emissions per dollar of output. Emissions are measured in kilotonnes, and industrial output is measured in chained (2012) million dollars to remove the effect of inflation.

Carbon pricing success is evaluated through reductions in the carbon intensity of industry measured as the ratio of carbon intensity each year to the carbon intensity of the 2009 to 2019 average. A ratio less than one indicates improvement because the annual carbon intensity is below the medium-term average; a ratio greater than one indicates deterioration because the annual carbon intensity is above the medium-term average.

## Northwest Territories Industrial Carbon Emission History

Table 10 shows the carbon intensity of Northwest Territories industry averaged 0.414 kilotonnes per million dollars GDP over the 2009 to 2021 period.

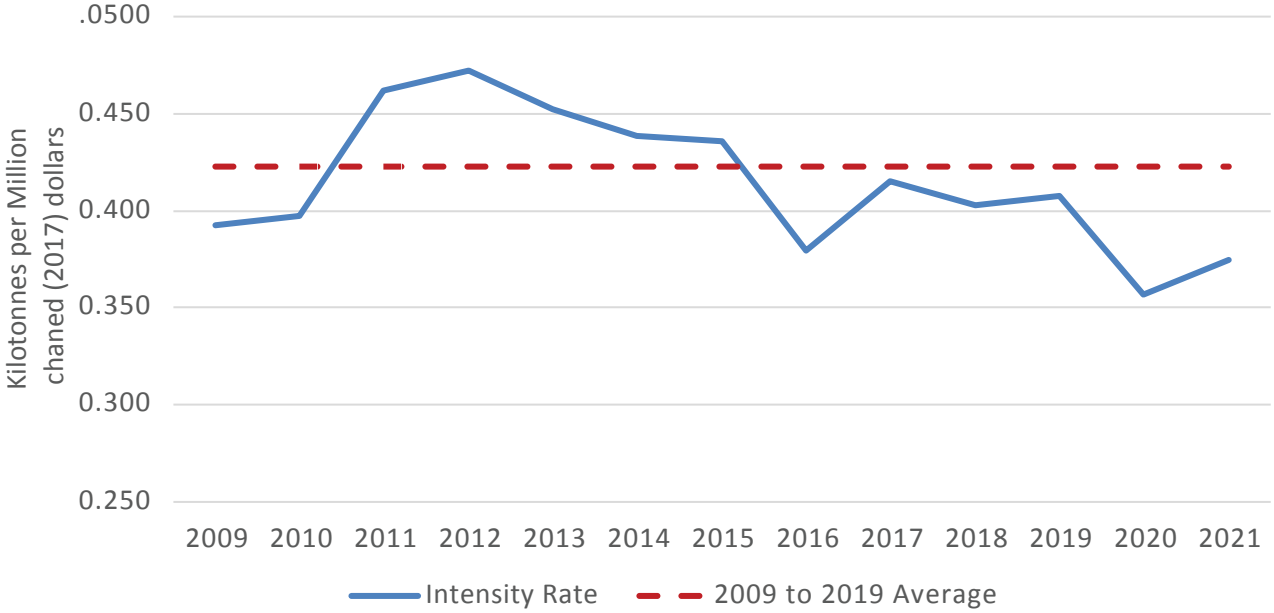
**Table 10: Carbon Intensity, Northwest Territories Industry**

Year	All Industry Emissions (kilotonnes)	GDP, basic prices (millions chained (2012) dollars)	Carbon intensity (kilotonnes per million chained (2012) dollars)	Carbon intensity ratio (Ratio between carbon intensity and the 2009-2019 average)
2009	1701	4330	0.393	0.9
2010	1768	4449	0.397	0.9
2011	1866	4039	0.462	1.1
2012	1896	4017	0.472	1.1
2013	1868	4128	0.453	1.1
2014	1897	4324	0.439	1.0
2015	1904	4368	0.436	1.0
2016	1638	4319	0.379	0.9
2017	1859	4477	0.415	1.0
2018	1830	4541	0.403	1.0
2019	1772	4347	0.408	1.0
2020	1416	3968	0.357	0.8
2021	1550	4135	0.375	0.9
<b>Average</b>	<b>1,767</b>	<b>4,265</b>	<b>0.414</b>	

Source: Statistics Canada Tables 38-10-0097-01 and 36-10-0402-01

Figure 3 shows that 2021 Northwest Territories industrial carbon intensity is below the ten-year average.

**Figure 3: Carbon Intensity, Northwest Territories Industry**



Source: Statistics Canada Tables 38-10-0097-01 and 36-10-0402-01

Table 11 shows annual Northwest Territories carbon intensity by specific industries. Direct industry comparisons are difficult because the values of goods and services being produced or transported differ significantly. For example, the water transportation industry ships many staple goods that, while of critical importance for remote communities, are of low dollar value, while air transport moves higher value goods, which can generate a much higher value added per kilotonne of emissions.

**Table 11: Carbon Intensities, Northwest Territories Selected Industries**

Carbon emissions per million dollars value added (kilotonnes)														
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	13-Year Average
<b>Total, All Industries</b>	0.393	0.397	0.462	0.472	0.453	0.439	0.436	0.379	0.415	0.403	0.408	0.357	0.375	0.414
<b>Non-metallic mineral mining and quarrying</b>	0.807	0.808	1.044	1.313	1.291	1.057	1.073	0.778	0.518	0.594	0.723	0.713	0.735	0.881
<b>Electric power generation, transmission and distribution</b>	1.153	1.032	1.117	1.148	1.127	1.451	2.114	1.158	0.955	1.027	0.955	0.995	0.959	1.168
<b>Air Transportation</b>	3.023	2.887	2.490	2.514	2.566	2.289	2.225	2.164	1.995	1.717	1.815	2.937	3.067	2.438
<b>Water Transportation</b>	2.578	2.744	3.591	4.006	3.911	3.936	4.712	5.691	2.243	2.056	1.239	0.331	0.284	2.871
<b>Other provincial and territorial government services</b>	0.282	0.292	0.492	0.331	0.522	0.493	0.431	0.335	0.572	0.431	0.348	0.366	0.363	0.404

Source: Statistics Canada Tables 38-10-0097-01 and 36-10-0402-01

# Appendix

The following table provides estimated Northwest Territories greenhouse gas emissions based on calendar year fuel tax data. Fuel volumes by calendar year are not available in this format before 2010.

**Table A1: Northwest Territories Fuel Volumes by Type**

Calendar Year 2010 to 2023 (thousands of litres)							
Year	Gasoline	Aviation <sup>1</sup>	Motive Diesel	Railway Diesel	Non-Motive Diesel	Diesel Heating	Propane Heating <sup>2</sup>
2010	49,178	51,591	87,749	115	110,122	94,966	..
2011	47,894	55,329	103,790	108	123,245	96,803	..
2012	49,019	59,128	107,143	600	135,476	97,090	..
2013	49,744	51,705	114,469	278	145,606	103,791	22,765
2014	47,251	50,180	126,130	189	148,568	84,895	20,506
2015	47,714	53,166	137,178	301	160,201	78,948	19,603
2016	52,888	51,245	144,628	154	121,925	77,591	18,045
2017	53,766	59,951	181,001	144	114,478	75,933	14,980
2018	49,734	59,812	165,864	115	122,598	88,191	15,670
2019	54,006	59,335	146,408	73	111,650	86,945	21,030
2020	46,365	41,000	104,138	120	102,261	89,144	28,769
2021	47,997	43,364	119,800	108	107,460	83,813	28,204
2022	47,785	55,508	124,947	105	112,539	89,494	28,099
2023	43,491	56,844	123,345	86	136,209	74,402	26,825

**Notes:**

<sup>1</sup> Total of aviation gasoline and aviation turbo jet gasoline.

<sup>2</sup> “..” indicates that data is not available.

Source: NWT Finance

The following table estimates Northwest Territories greenhouse gas emissions by fuel type using the calendar year fuel tax data reported in Table A1.

**Table A2: Estimated Northwest Territories Greenhouse Gas Emissions by Fuel Type**

Calendar Year 2010 to 2023 Greenhouse Gas Emissions (kilotonnes)								
Year	Gasoline	Aviation <sup>1</sup>	Motive Diesel	Railway Diesel	Non-Motive Diesel	Diesel Heating	Propane Heating <sup>2</sup>	Total
2010	124	128	238	0.3	298	257	..	1,045
2011	120	138	281	0.3	334	262	..	1,136
2012	123	147	290	1.6	367	263	..	1,192
2013	125	129	310	0.8	394	281	35	1,275
2014	119	125	342	0.5	402	230	32	1,250
2015	120	132	372	0.8	434	214	30	1,303
2016	133	128	392	0.4	330	210	28	1,221
2017	135	149	490	0.4	310	206	23	1,314
2018	125	149	449	0.3	332	239	24	1,319
2019	136	148	397	0.2	302	236	33	1,251
2020	116	102	282	0.3	277	241	45	1,064
2021	121	108	325	0.3	291	227	44	1,115
2022	115	127	330	0.3	297	190	34	1,093
2023								

Notes:

<sup>1</sup> Total of aviation gasoline and aviation turbo jet gasoline.

<sup>2</sup> “..” indicates that data is not available.

Source: NWT Finance



