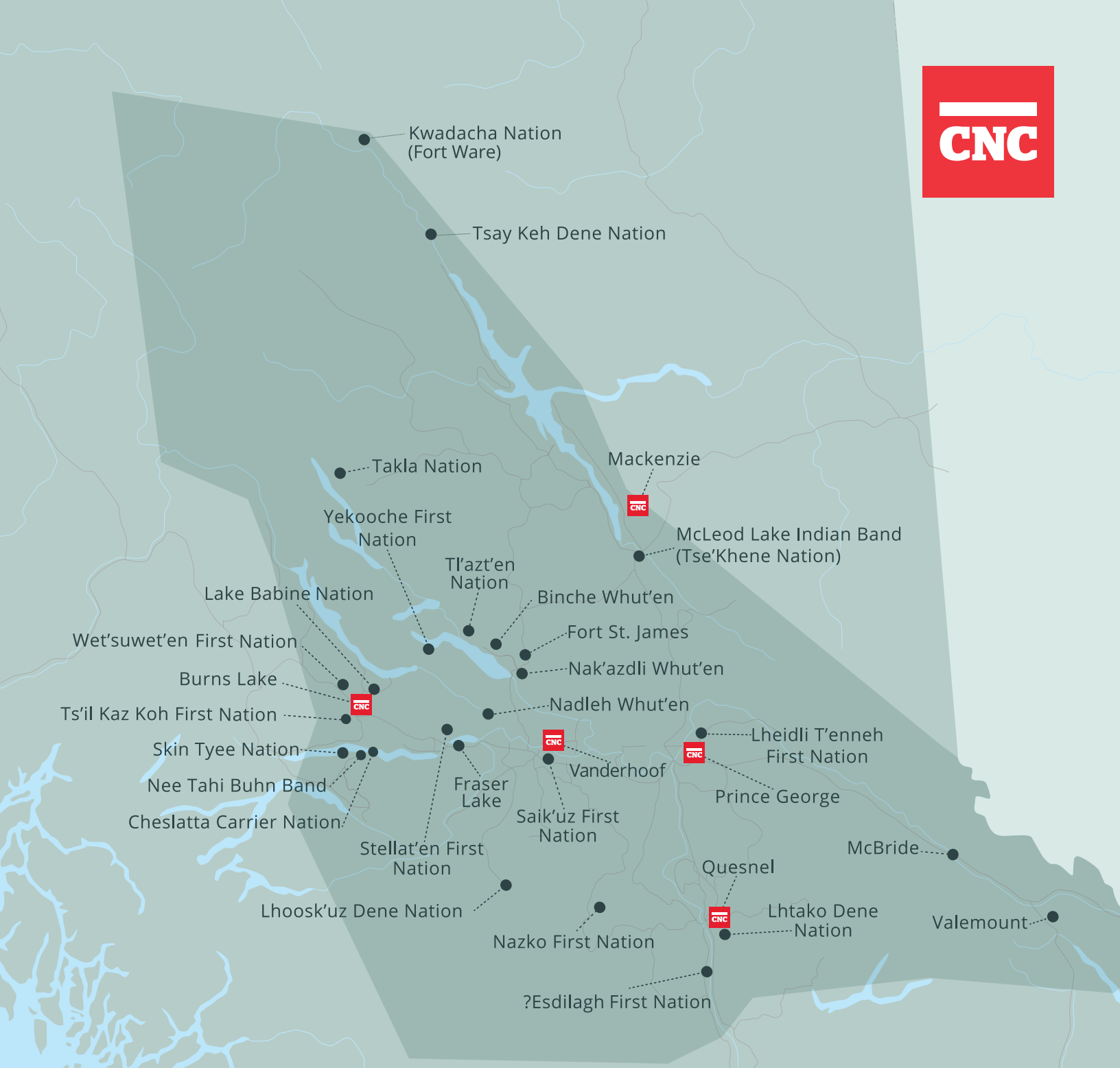
2025 PSO Climate Change Accountability Report

College of New Caledonia

Contents

Declaration Statement

This PSO Climate Change Accountability Report, covering the period from January 1, 2025, to December 31, 2025, summarizes the College of New Caledonia's (*CNC*) greenhouse gas (*GHG*) emissions profile, the total offsets applied to reach net-zero emissions, and the actions taken in 2025 to reduce GHG emissions. The report also outlines plans to continue reducing emissions in 2026 and beyond.



Land Acknowledgement

CNC is honoured to work with the Indigenous Peoples on Lheidli T'enneh keyoh and the twenty-two (*22*) distinct Nations we are grateful to serve, inclusive of the First Nations, Métis and Inuit peoples. We acknowledge the graciousness of the Nations in welcoming visitors to live, learn, and be on their traditional unceded territories. CNC is proud to be allowed to have five campuses spanning these territories.

Among the Nations we would like to acknowledge are also Indigenous partners across the region including those who participate in the Aboriginal Steering Committees and Yinke Dene Council, whose advice and input guide and inform the college and programs we offer.

Executive Overview:

The College of New Caledonia operates across six communities throughout Northern British Columbia. In recognition of the unceded territories on which we live, work, and play, CNC is committed to responsible and sustainable operations that support the long-term health of these lands for future generations.

In 2025, CNC continued to advance emissions reduction efforts through a range of conservation and efficiency initiatives, including:

- Initiation of the Prince George main campus building envelope project
- LED lighting upgrades
- Replacement of end-of-life equipment with higher efficiency systems
- Planning and design for future high-efficiency equipment replacements
- Optimization of building control strategies

2025 was a year of significant operational change. Federal policy changes related to international student enrollment resulted in a decline in student numbers and corresponding staffing reductions across all campuses. While reduced occupancy would typically be expected to lower emissions, this was offset by several operational factors that increased overall energy demand.

A major contributor was the removal of the Prince George Main Campus building envelope during winter months, which significantly reduced heating efficiency while heating systems remained in operation to protect infrastructure and maintain minimum building conditions. This resulted in higher natural gas consumption despite fewer occupants. In addition, reduced occupancy may have further limited passive heat gains within buildings, contributing to increased heating requirements.

At the same time, some reductions were observed in non-energy-related emissions. Decreased paper consumption was directly attributable to reduced student enrollment and staffing levels, which in turn lowered overall campus activity and administrative demand.

Data gaps were identified in 2025 due to resourcing constraints, including missing utility data for the Mackenzie campus. These issues have since been addressed, but not in time for inclusion in this reporting cycle. Based on previous reporting, Mackenzie accounts for approximately 3% of total emissions, meaning the reported totals likely understate actual emissions for 2025. These emissions will be incorporated in the next reporting cycle.

Overall, total emissions increased by approximately +9.52% in 2025, excluding incomplete Mackenzie data. This increase was driven primarily by higher natural gas consumption at major campuses such as Prince George and Quesnel. Given the missing data, the actual increase is expected to be higher.

Due to the atypical operating conditions in 2025, including reduced occupancy and significant building envelope disruption, this year is not considered representative of normal operations and is not recommended for use as a baseline for future performance comparisons. Future analysis will aim to re-establish benchmarks using more stable operating years, such as 2021 and 2022.

CNC campuses realized the following changes in utility consumption and emissions in 2025 compared to 2024 levels:

Campus	Natural Gas (GJ)	Electricity (GJ)	Greenhouse Gas Emissions
Burns Lake	1,488 GJ (-6.4%)	674 GJ (+3.37%)	79.9 tCO_2e (-3.85%)
Fort St James	228 GJ (-2.56%)	404 GJ (-3.35%)	14.5 tCO_2e (+13.28%)
Mackenzie	Incomplete partial data	Incomplete partial data	Incomplete partial data
Prince George	31,175 GJ (+6.04%)	23,339 GJ (-2.07%)	1,756 tCO_2e (+12.13%)
Quesnel	4,297 GJ (+24.3%)	3,754 GJ (-1.91%)	244 tCO_2e (+31.18%)
Vanderhoof	646 GJ (-9.65%)	749 GJ (-15.37%)	37.7 tCO_2e (-4.07%)
Collectively Excludes Mackenzie	38,284 GJ (+4.97%)	29,181 GJ (-2.53%)	2174 tCO_2e (+9.52%)

Note: *Mackenzie campus data is partially available and included in total GHG emissions (2174 tCO_2e) but excluded from year-over-year comparisons due to incomplete reporting. Mackenzie accounts for approximately 3% of previous emissions, and the reported 9.52% increase is likely higher due in part to missing data from Mackenzie.*

Prince George Main Campus Building Main Entrance

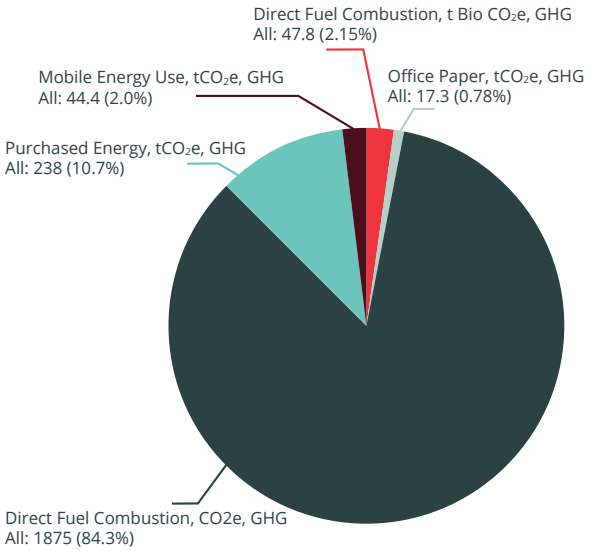
Emissions Reductions: 2025 Actions

Stationary Sources

Stationary sources, which include energy used within buildings for heating, hot water, and electricity, remain the largest contributor to CNC's greenhouse gas emissions. In 2025, total emissions amounted to 2,174.7 tCO_2e, with the majority coming from Direct Fuel Combustion (*natural gas*) at 1,875 tCO_2e (*84.3%*) and Purchased Energy (*electricity*) contributing 238 tCO_2e (*10.7%*). Minor sources such as Mobile Energy use (*44.4 tCO_2e, 2.0%*) and Office Paper (17.3 tCO_2e, 0.78%) also contribute to the overall footprint. Overall, stationary source emissions increased from 2024 to 2025, with the reported totals likely understated due to missing utility data from the Mackenzie campus, which historically accounts for approximately 3% of emissions.

Weather Context: Heating Degree Days (*HDD*) is a measurement calculated using the average daily temperature compared to a base temperature, 18°C is used in this calculation and is the widely accepted value. When outdoor temperatures fall below this threshold, heating is required to maintain comfortable indoor conditions. Higher HDD values indicate colder conditions and therefore greater heating demand.

Historical weather data from the Government of Canada indicates that 2025 experienced HDD levels comparable to 2024 in Prince George. This suggests that weather conditions alone are unlikely to explain the observed increase in natural gas consumption and greenhouse gas emissions in 2025.



Total GHG Emissions College of New Caledonia 2025

Prince George

In 2025, CNC's PG Main Campus building envelope upgrade began. The envelope was due for replacement, so CNC took this opportunity to incorporate enhanced energy efficiency into the design. This extensive project involves replacing and upgrading windows and doors as well as upgrading insulation, resulting in a modernized building envelope with greater R-value to reduce envelop loss. The improved seal will reduce drafts and ensure a more comfortable and energy-efficient environment.

During the envelope project's winter construction phase, heating demand temporarily increased as measures were implemented to ensure safe and comfortable indoor temperatures for employees and students. This project is scheduled to continue into 2026, and its long-term benefits will play a crucial role in our commitment to sustainability and operational efficiency. Impacts of this project should be noticeable in 2026 and measurable in 2027.

Four aging rooftop units on the Brink Trade building were replaced with more efficient dual-fuel pump units. These systems are designed to significantly improve heating efficiency while electrifying the heating system. To optimize emission reduction and cost reduction the units are configured to transition from electric heating to natural gas heating at -3°C. This will contribute to a gradual transition away from dependency on natural gas for space heating and lead to lower greenhouse gas emissions and operating costs.

The installation of LED lighting upgrades, including new fixtures and advanced control components, continued across the Prince George campus and is scheduled to extend into 2026.

Burns Lake

No emissions reduction initiatives were implemented at the Burns Lake campus in 2025.

Fort St James

No emissions reduction initiatives were implemented at the Fort St James campus in 2025.

Mackenzie

No emissions reduction initiatives were implemented at the Mackenzie campus in 2025.

Quesnel

Energy consumption at Quesnel increased in 2025. This rise is likely related to the expanded boiler system implemented in the previous year to ensure reliable building operation during periods of higher heating demand. These upgrades were necessary to support proper building function, including maintaining safe operating conditions and preventing system limitations experienced under the previous configuration. Due to this, the increased emission levels will likely be maintained moving forward as they are the result of increasing heating energy to better meet building needs.

In 2025, the Multi Stack heat pump units at the Quesnel campus received updated controls to improve operational performance. Work also continued with external consultants to optimize the DDC system, yielding positive results. These efforts are intended to improve system efficiency and are ongoing into the next reporting cycle.

Vanderhoof

No emissions reduction initiatives were implemented at the Vanderhoof campus in 2025.

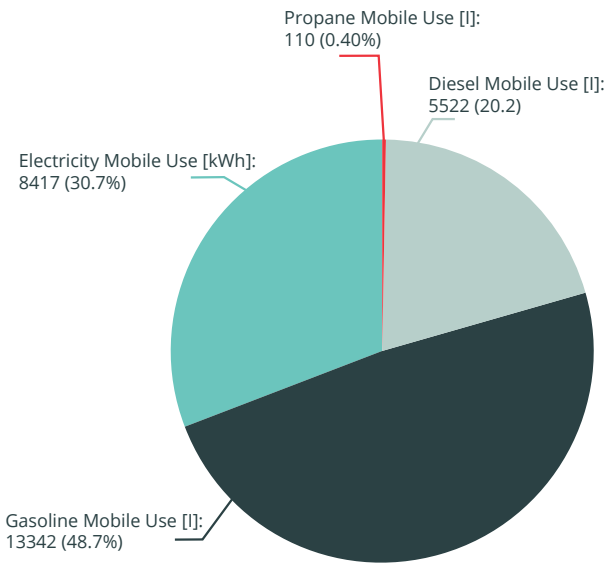
Mobile Sources (*e.g. fleet vehicles, off-road/portable equipment*)

Several shifts in Mobile Sources consumption were observed compared to the previous year. Electricity use dropped significantly, from 24,045 kWh in 2024 to 8,417 kWh in 2025. This reduction was largely due to temporary fleet limitations caused by vehicle recalls, which restricted the use of electric vehicles for part of the year. These issues have since been resolved, and higher electric vehicle usage is expected in the next reporting period.

Gasoline consumption also decreased slightly, from 13,605 L to 13,342 L. This indicates that the reduction in electric vehicle use did not result in a shift away from zero-emission fleet usage toward gasoline vehicles, but instead reflects an overall decrease in fleet utilization during the year.

Diesel consumption increased from 2,667 L in 2024 to 5,522 L in 2025. This increase is primarily attributable to expanded use of equipment within the Heavy-Duty Automotive Labs, where diesel-powered equipment is operated as part of hands-on instructional programming. Increased lab activity and more consistent use of training equipment resulted in higher diesel consumption. As a result, 2025 levels are considered more representative of typical program-related usage moving forward.

Overall, changes reflect temporary fleet limitations and increased utilization of instructional equipment within the Heavy-Duty Automotive Labs, rather than a fundamental shift in fleet demand or efficiency. As a result of these shifts, mobile emissions increased from 38.9 tCO_2e in 2024 to 46.1 tCO_2e.



Total Fuels by Type College of New Caledonia 2025

Paper Consumption

The College of New Caledonia saw a decrease in paper-related emissions of 23.5 tCO_2e from 2024 to 2025, representing a 57.6% reduction. This decrease was influenced by lower staffing and student levels in 2025, along with increased awareness and discussion surrounding printing volumes and paper consumption across the institution. Additional reductions may be achieved through the use of paper with higher recycled content and will be explored further.

Emissions Reductions: 2026 Plans

Prince George

Building envelope improvements at the main campus will continue into 2026. These upgrades will strengthen the building envelope, reducing air leakage, improving energy efficiency, and supporting consistent indoor conditions.

Lighting upgrades will also progress, with the LED retrofit in the main building continuing through 2026.

At the Brink building, Phase 2 of rooftop HVAC unit replacements is planned to continue. Following initial replacements completed in 2025, additional units will be upgraded to higher efficiency, lower-emission systems, contributing to improved building performance.

New Dual Fuel Pumps on Brink Building Roof Top

At the Canfor Tech Building, a fluid cooler is scheduled to be replaced with a new properly sized fluid cooler by summer 2026. This change is expected to improve overall

HVAC system performance by providing more precise temperature control, improved system reliability, and enhanced operational efficiency.

Also, in the Canfor Tech Building work is planned to replace the existing gas-fired make-up air unit serving the welding shop with a dual-fuel heat pump system. This upgrade, scheduled for completion in summer or fall 2026, is expected to reduce emissions while improving system flexibility, indoor air quality, and overall system performance.

Lastly, at the Power Plant, the starter contactor on Chiller 2 will be replaced with a variable frequency drive. This upgrade will enable variable speed operation of the chiller motor, allowing output to better match cooling demand. This is expected to improve energy efficiency under partial load conditions, improve system controllability, and reduce wear on mechanical components, contributing to improved overall plant performance.

Burns Lake

A roof replacement is planned for 2026 for the Burns Lake Building. This upgrade is expected to improve insulation and reduce heat loss, contributing to lower heating demand and improved overall building performance.

Further exploration into upgrading the aged classroom ventilators is underway to plan for higher efficiency replacements.

Fort St James

Currently no major capital initiatives are currently planned for the Fort St James campus in 2026. Efforts will continue to focus on monitoring and optimizing building mechanical systems to support efficient operation.

Mackenzie

Currently no major capital initiatives are currently planned for the Mackenzie campus in 2026. Efforts will continue to focus on monitoring and optimizing building mechanical systems to support efficient operation.

Quesnel

Currently no major capital initiatives are currently planned for the Quesnel campus in 2026. Efforts will continue to focus on monitoring and optimizing building mechanical systems to support efficient operation.

Mobile Sources (*e.g. fleet vehicles, off-road/portable equipment*)

No fleet expansions are currently planned for 2026. If fleet additions or replacements are required, CNC will continue to follow its Express Lane Partner commitment by prioritizing the procurement of zero-emission or hybrid vehicles, where suitable options are available for operational needs.

Paper Consumption

CNC is committed to considering the procurement of paper with recycled content when suitable for the intended printing purposes. Efforts to reduce paper consumption are ongoing, with increased use of digital documents and electronic signatures supported through process improvements and staff training.

CNC is also exploring potential changes to its recycling processes. While these changes are not expected to reduce overall paper use, they are intended to improve waste diversion rates and increase the amount of paper successfully recycled.

Public Sector Leadership

Climate Risk Management

To support ongoing understanding of climate-related risks and mitigation strategies, CNC encourages team members to participate in training opportunities provided by the Province of British Columbia, including programs delivered through the Ministry of Energy and Climate Solutions (formerly coordinated through British Columbia's Climate Action Secretariat), as well as BC Hydro and equipment manufacturers.

Sustainability Initiatives

CNC continues to explore opportunities to increase waste diversion from both student activities and operations. While geographical constraints and limited local service availability remain a challenge, potential solutions are actively being reviewed. CNC will continue to assess emerging opportunities and partnerships that support improved waste diversion outcomes.

Success Stories

Despite a year of operational changes, CNC continued to make meaningful progress in improving building performance and advancing emissions reduction initiatives. The initiation of the Prince George main campus building envelope upgrade represents a significant long-term investment in energy efficiency and climate resilience.

Continued progress in LED lighting upgrades and the replacement of aging HVAC equipment with higher efficiency systems have also contributed to improved energy performance across the Prince George campus.

2025 GHG Emissions and Offsets Summary Table

College of New Caledonia 2025 GHG Emissions and Offset Summary	
GHG Emissions for the period of January 1 - December 31, 2025	
Total BioCO_2	49.5
Total Emissions (tCO_2e)	2223
Total Offsets (tCO_2e)	2174
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO_2e)	0
Grand Total Offsets to be Retired to 2025 Reporting Year	
Grand Total Offsets to be retired for 2025 Reporting year (tCO_2e)	2174
Offset Investment ($)	$54,350

Retirement of Offsets

In accordance with the requirements of the Climate Change Accountability Act and the Carbon Neutral Government Regulation, College of New Caledonia (the organization) is responsible for arranging for the retirement of the offsets obligation reported above for the 2024 calendar year together with any adjustments reported for past calendar years (if applicable). The organization hereby agrees that, in exchange for the Ministry of Energy and Climate Solutions (the ministry) ensuring that these offsets are retired on the Organizations behalf, the Organization will pay within 30 days, the associated invoice to be issued by the Ministry in an amount equal to $25 per tonne of offsets retires on its behalf plus GST.

Executive Sign-off

Signature  **Date** May 12, 2026

Name (please print) Tara Szerencsi **Title** VP, Finance & Corporate Services

2025 PSO Climate Change Accountability Report

College of New Caledonia