



College of
New Caledonia

2020 PSO Climate Change Accountability Report

Organization: College of New Caledonia

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1. Declaration Statement:

This Climate Change Accountability Report for the period January 1, 2020 to December 31, 2020 summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2020 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2021 and beyond.

2. Executive Overview:

The College of New Caledonia (CNC) took great strides in 2020 to implement and execute framework required to approach a net-zero emissions future. Initiatives were taken through equipment upgrades, operational changes, and administrative changes. Initiatives and operational reductions due to Covid have resulted in a reduction of overall GHG emissions by 12.6% from 2019 levels. GHG emissions for 2020 are 2012 tCO₂e.

2021 initiatives include generating a baseline to help quantify results from modifications, building automation system optimization through modern control strategies, higher efficiency replacements of failing equipment, fleet emission reduction through ZEV alternatives, and research into renewable energy sources and carbon sequestering technology. Targeted goal is another 15% reduction from 2020 to 2021 GHG emission levels.

3 Overview:

3.1 2020 GHG Emission Reduction Initiatives

CNC has taken great steps toward a net-zero emission future during the reporting period of 2020. Changes in equipment, operations and administration were applied to create immediate and future emission reductions.

GHG Emission Reduction Through Equipment Upgrades

- Purchase of two ZEV fleet vehicles to reduce emissions caused by local travel and travel to nearby (within 150km) regional campuses.
- Purchased two ZEV utility vehicles (electric forklift and electric off-road vehicle) to reduce operational emissions around campus.
- Approved and began procurement process on air handler unit upgrades improving the efficiency of CNC's HVAC systems, completion 2021.
- Approved and began procurement process on LED lighting upgrade for the John A. Brinks Trades and Technology Centre, completion 2021.

GHG Emission Reduction Through Operational Modifications

- Fine tuning of building automation system.
- Planned restructuring of custodial scheduling to reduce HVAC system runtime.

GHG Emission Reduction Through Administration

- Administrative departmental restructuring allowing for greater focus on GHG reduction initiatives.
- Hiring of a certified energy manager to evaluate, identify, and aid in execution of GHG reduction projects.
- Began generation of CNC's baseline consumption to analyze building performance and efficiently target areas with emission reduction potential.

3.2 2020 GHG Emission Reduction Successes

Efforts made in 2020 have shown great results, but direct impact due to fine tuning of operations is hard to quantify due to reduced occupancy as a result of Covid. Even with reduced occupancy, majority of utility demand remains as the building needs to maintain comfortable temperatures and lighting levels for operational staff onsite.

- Reduction due to optimization of HVAC scheduling, night setbacks and control sequencing has resulted in a reduction of 12% direct fuel combustion from 2019 levels.
- Mobile emissions have been reduced by 30% from 2019 levels due to a combination of both Covid and CNC's restrictions encouraging greater online interaction between regional campuses and work from home policies.

3.3 2021 GHG Emission Reduction Strategies

CNC is committed to creating a sustainable future through energy-saving projects and sustainable practices integrated into decision making processes of future projects. (Caledonia, 2021). To continue the success of 2020 the following actions are being taken.

- Completion of CNC's baseline consumption analysis.
- Continued fine tuning of building automation system.
- Higher efficiency alternatives considered for equipment replacement.
- Higher efficiency equipment considered for capital projects.
- Exploration of ZEV infrastructure opportunities allowing for light duty ZEV travel to all regional campuses.
- Exploration of renewable energy opportunities.
- Exploration of carbon sequestering opportunities for emissions that cannot be mitigated.

4. Emissions and Offset Summary Table:

| College of New Caledonia 2020 GHG Emissions and Offsets | |
|--|---------|
| GHG Emissions created in Calendar Year 2020 | |
| Total Emissions (tCO ₂ e) | 2013 |
| Total BioCO ₂ | 1.39 |
| Total Offsets (tCO ₂ e) | 2012 |
| Adjustments to Offset Required GHG Emissions Reported in Prior Years | |
| Total Offsets Adjustment (tCO ₂ e) | -628 |
| Grand Total Offsets for the 2020 Reporting Year | |
| Grand Total Offsets (tCO ₂ e) to be Retired for 2020 Reporting Year | 1384 |
| Offset Investment (\$25 per tCO ₂ e) | \$34600 |

5. Retirement of Offsets:

In accordance with the requirements of the *Climate Change Accountability Act* and Carbon Neutral Government Regulation, The College of New Caledonia (**the Organization**) is responsible for arranging for the retirement of the offsets obligation reported above for the 2020 calendar year, together with any adjustments reported for past calendar years (if applicable). The Organization hereby agrees that, in exchange for the Ministry of Environment and Climate Change Strategy (**the Ministry**) ensuring that these offsets are retired on the Organization's 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 retired on its behalf plus GST.

Executive sign-off:


Signature _____ Date May 28, 2021

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

Works Cited

Caledonia, C. o. (2021, 05 24). *College of New Caledonia Strategic Plan 2021-2026*. Retrieved from College of New Caledonia: https://cnc.bc.ca/docs/default-source/about/initiatives-reports/strategic-plan/cnc-strategic-plan-2021-26_v6_051721.pdf?sfvrsn=a0f8d282_0