



2022 PSO Climate Change Accountability Report

School District #79 – Cowichan Valley

PART 1. Legislative Reporting Requirements

Declaration statement: This PSO Climate Change Accountability Report for the period January 1, 2022 to December 31, 2022 summarizes our greenhouse gas (GHG) emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2022 to minimize our GHG emissions, and our plans to continue reducing emissions in 2023 and beyond.

Emission Reductions: Actions & Plans

The Cowichan Valley School District continues to work towards reducing its GHG emissions as a long-term contribution to GHG reductions. The focus remains on upgrading to cleaner energy sources, education and awareness, and supporting climate action programs. COVID-19 presented unique challenges that impacted energy consumption patterns (i.e., ventilation); these impacts are being reviewed and a plan will be put in place to best manage energy consumption moving forward. Additionally, severe weather patterns in 2022 added challenges to managing reduced energy consumption patterns.

A. Stationary Sources (e.g. buildings, power generation)

In 2022, Major boiler replacement projects were completed at Quamichan School, which includes the use of electric heat pumps, with a low temperature boiler as a backup. All lighting upgrades included the most energy efficient light fixtures will continue. The ongoing construction of the new Cowichan Secondary School that is replacing the older site. The new school is being built to meet and/or exceed current energy efficiency standards in the year of opening and beyond.

An OBS agreement with Honeywell continues to be secured and is underway to further optimize the existing mechanical systems which will result in a significant reduction in electricity, natural gas and fuel oil consumption. The district continues to do end-to-end reviews of all HVAC DOC systems annually, with plans to update end of life systems in the coming year, with temperature mapping for increased efficiency. Infrastructure for our electric bus fleet was installed to support the replacement of fuel and diesel buses at end of life.

Other initiatives continue from previous years including student-initiated energy upgrades (solar preheat on domestic hot water systems at 3 Secondary schools) and the introduction of high-volume eco-friendly wastepaper products in school washrooms and classrooms.

The district completed a major heating plant upgrade at the maintenance shop and bus garage. The heating plants for the maintenance shop and bus garage will have a large impact on emissions reduction with the conversion of oil-fired boilers to heat pumps. We also replaced two old fuel storage tanks in the Transportation yard, that will meet current environmental standards and limit the possibility of leaks.

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

The Transportation Department continues to work on mapping bus routes to ensure mileage and fuel consumption contribute to operational efficiencies. Despite increased enrolment and ridership, the transportation department maintained existing routes without sacrificing service to learners. Anti-idling software continues to be used in all school buses where after one (1) minute of idling, the bus engine turns off.

The school district currently has 3 electrical buses in its fleet with plans to replace more; infrastructure was also installed to support future electric buses in the Transportation Yard. As we expand the fleet energy and maintenance data will be collected and monitored for future planning and reporting purposes. Electric charging stations have been installed, with two more planned in 2023, with supporting infrastructure to support more electric buses or fleet vehicles and replace the fuel and diesel buses as they hit end of life replacement.

Clean Fleet Plan: No plan was developed in 2022 for clean, small fleet due to the COVID-19 uncertainties and budget funding constraints.

C. Paper Consumption

We have initiated several short-term and long-term paper reduction strategies as presented below:

- All paper purchased must contain a minimum of 30% content; the actual goal is to purchase 100% sugar cane waste paper whenever possible. The paper purchase default on our order forms is set to purchase only 100% sugar cane waste paper whenever possible.
- We continue to evaluate new sources of low emissions non-forest paper.
- We have an awareness campaign focused on reduced office paper consumption/use.
- New leased printers are more energy efficient.
- Climate Action Group (CAG) meets occasionally with Local Government agencies.
- Purchased alternate source paper (bamboo, hemp, wheat, etc.).
- Papercut software was installed on all printers where you must enter a code to receive your print request rather than have it print and go to waste in recycling.
- Paperless meetings are held whenever possible, most notably on Zoom/Teams platforms.
- Online Human Resources portal – significant reduction in paper use and distribution.

2022 GHG Emissions and Offsets Summary Table

<i>School District #79 – Cowichan Valley: 2022 GHG Emissions and Offsets</i>	
GHG Emissions created in Calendar Year 2022	
Total Emissions (tCO ₂ e)	36.6
Total BioCO ₂	2666
Total Offsets (tCO ₂ e)	2053
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO ₂ e)	0
Grand Total Offsets for the 2022 Reporting Year	
Grand Total Offsets (tCO ₂ e) to be Retired for 2022 Reporting Year	2053
Offset Investment (\$25 per tCO ₂ e) [Grand Total Offsets to be Retired x \$25/tCO ₂ e]	51,325

Retirement of Offsets:

In accordance with the requirements of the *Climate Change Accountability Act* and Carbon Neutral Government Regulation, *School District #79 – Cowichan Valley (the Organization)* is responsible for arranging for the retirement of the offsets obligation reported above for the 2022 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.

PART 2. Public Sector Climate Leadership

2A. Climate Risk Management

We have initiated several short- and long-term strategies as presented below.

- For any building upgrades, energy efficiency and greenhouse gas emissions will be considered.
- Energy audits have been performed for the majority of the buildings in the school district.
- DDC remote monitoring to heating and mechanical equipment to quickly respond to issues; upgrades to systems to be more sensitive and accurate and response to temperature forecasts planned in the future.
- The promotion of energy efficiency and climate sustainable practices will continue district wide to align with our strategic plan initiatives and objectives.
- Past extreme weather and emergency climate conditions have prompted more urgent and careful consideration of alternative and eco-friendly energy options (i.e., composting sites at schools and

administration sites, solar energy, redesigned bus routes, etc.).

- Attendance at conferences and/or professional development workshops are encouraged to be done virtually where possible and if in person cannot be avoided, a low carbon business travel policy has been adopted.
- Recruitment activities occur online where possible.


2B. Other Sustainability Initiatives

SD79 has pursued 'green' purchasing/procurement standards where doing business with suppliers is considered based on their contribution to the climate rather than solely on the price/availability of their products.

2C. Success Stories

The arrival of the first electric school bus was exciting and the anticipated cost savings from reduced fuel purchases, although not officially tracked and measured in 2022, will reduce fossil fuel emissions and contribute to improve existing climate conditions. Heat pumps installed at Schools will act as a primary heating source for the school and is expected to have reduced cost savings, coupled with low temperature boilers we expect a significant influence on carbon emission.

Executive sign-off:

Signature		Date	
Name (please print)		Title	