Carbon Neutral

Nanaimo Ladysmith Public Schools
2025 PSO Climate Change Accountability Report

Title: 2025 PSO Climate Change Accountability Report

Organization: *Nanaimo Ladysmith Public Schools (NLPS – School District 68)*

PART 1. Legislative Reporting Requirements

Declaration statement: This PSO Climate Change Accountability Report for the period January 1, 2025, to December 31, 2025, summarizes our greenhouse gas (GHG) emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2025 to minimize our GHG emissions, and our plans to continue reducing emissions in 2026 and beyond.

By June 30th, 2026, the 2025 Climate Change Accountability Report will be posted to www.sd68.bc.ca website.

Emission Reductions: Actions & Plans

A. Stationary Sources

In 2025, actions to reduce GHG emissions are:

- Upgraded Building Automation Systems (BAS) – updated BAS systems at two sites (Uplands, Mountain View) to latest version of Enteliweb. Systems required upgrades due to failing controller panels and with the upgrade came improvements to the logic to controlling gas-fired and electrical equipment such as optimal start and scheduling capabilities of run-time. Upgrading to a newer version increases capability to add more optimization programming which can lead to additional 5-10% annual gas savings. Collectively, estimated carbon savings are 10tCO2e.
- Added BAS system to one site (Rutherford) which did not have any DDC control. New DDC system has proven to reduce gas consumption 53% or 41tonnes CO2e.
- Continuous Optimization (Group B) – Investigation for second set of 13 sites completed December 2024. Energy conservation measures were implemented by March 31, 2025, and will generate gas savings of 2820 GJ and electrical savings of 136,016 kWh. Estimated carbon savings of 142tCO2e.
- Continuous Optimization (Group C) – Investigation for final set of 13 sites completed December 2025. Energy conservation measures to be implemented by March 31, 2026, and will generate gas savings of 2568 GJ and electrical savings of 131,700 kWh. Estimated carbon savings of 130tCO2e.
- Upgraded gas furnaces with condensing technology at seven sites (LSP, VAST, Cedar Elem, Ladysmith sec, Harewood gym, LBO, Transportation). Estimated carbon savings 15tCO2e.
- Upgraded atmospheric boilers to condensing boilers at two sites (Dufferin and Forest Park). Estimated carbon savings 25tCO2e.
- Mountain View – replaced three gas-fired air handling units with condensing technology. Completed September 2025. Estimated carbon savings 5tCO2e.
- Quarterway Portables – updating existing electric heating and ventilation system to heat pump technology. No net GHG savings; however, heat pump system will be able to provide comfort cooling (climate adaptability).
- GHG Reduction Strategy plan – completed two-phased feasibility study (ASHRAE Level II) which

was 100% fully funded by BC Hydro. This study will provide energy audits and modelling of each mechanical system at a site level. **As a result, an Excel-based tool was developed to track current projects and provide a roadmap, with costs, in finding the optimal pathway to GHG reduction and establishing a strategic foundation to reduce our carbon footprint**.

- Operational Monitoring – Energy Management team monitors all systems to ensure equipment and systems are running only when necessary to reduce the "waste". For example, heating systems are turned down or off during winter, spring, and summer breaks; boilers are turned off as soon as outdoor air temps are above 15C and a full walk-through all sites first week of July to ensure all systems are *physically* off.
- The 11th year of the 'Energy Cup Challenge' has been rebranded to the "Sustainability Cup" to allow schools to incorporate activities related to climate adaptability and energy conservation. In partnership with Fortis and BC Hydro, competition amongst several schools to engage students in various energy conservation campaigns. Participating schools were recognized once again at "Sustainability Cup Banquet". Over 100 students attended. Prizes are handed out at banquet as well as recognition message from Superintendent.

B. Stationary Sources – Looking Ahead

Our plans to continue reducing emissions in 2026 consist of:

- Continue to update and replace building automation systems at two sites (Gabriola and Frank Ney).
- Continuing to implement energy conservation measures identified through Continuous Optimization Program for last group of buildings (Group C).
- Mountain View Elem – replacement of final two gas-fired air handling units (AHUs). AHUs will be upgraded to condensing technology to save gas usage. Estimated gas savings will be 40 GJ.
- Two new Prefab structures (12 classrooms) will be added to SD68 sites in 2025 and 2026. Both sites will be 100% electric.
- Will complete infrastructure upgrade to accommodate another 10 electric busses. Also, adding three fast DC chargers to aid in fast turnaround charging times for school busses and white fleet.
- Synergistic HVAC upgrades – Energy Management team works closely with Capital planning team to ensure necessary HVAC upgrades align with seismic and/or new construction.
- Environmental Stewardship Action Plan – passed by Board of Trustees September 2022 – an 81-item action plan that includes measurable targets and objectives to reduce our carbon footprint, use of resources, waste, and greenhouse gas emissions in a manner consistent with current climate science. Action plan is posted on SD68 website. https://indd.adobe.com/view/e877e599-04ff-4109-9b7e-fa6956507e4d
- Continue to upgrade gas-intensive systems to more efficient gas systems or electrification through CNCP and/or SEP funding.

C. Mobile Sources

a. SD68 has a No-Idling policy
b. Fleet emissions have decreased by 39% since 2022 which will meet the CleanBC target of reducing GHGS by 40% by 2030.
c. Another EV bus will arrive September 2026.
d. EV FLEET READY plan (CleanBC) completed November 2023.
e. SD68 continues to replace yellow and white fleet with EV as ICE vehicles are retired AND if there is an operational electric version available.
f. As of May 1, 2025, SD68 operates ten electric school busses and seven white fleet service vehicles.

g. Infrastructure has been upgraded to accommodate another 10 electric busses. Also, adding three fast DC chargers to aid in fast turnaround charging times for school busses and white fleet. Completion July 2026.

D. Paper Consumption

SD68 continues to purchase paper with a recycled portion. All personal printers were removed to help reduce consumption of paper.

2025 GHG Emissions and Offsets Summary Table

***Nanaimo Ladysmith Public Schools* 2025 GHG Emissions and Offsets Summary**	
GHG emissions for the period January 1 - December 31, 2025	
Total $BioCO_2$	*99.2*
Total Emissions (tCO_2e)	*3,619*
Total Offsets (tCO_2e)	*3,188*
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO_2e)	*-7*
Grand Total Offsets for the 2025 Reporting Year	
Grand Total Offsets to be Retired for 2025 Reporting Year (tCO_2e)	*3,181*
Offset Investment ($)	*$79,525*

Retirement of Offsets:

In accordance with the requirements of the *Climate Change Accountability Act* and the Carbon Neutral Government Regulation, *Nanaimo Ladysmith Public Schools SD68* (**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 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

SD68 continues to lead, explore, and implement different options to reduce the District's carbon footprint and to mitigate effects of climate change. On the operational and facilities side, SD68 plans to continue to (as funding is available):

- Replace gas-fired air heating systems with air-source heat pumps where feasible
- Replace gym air handling units with ASHP (with gas backups) and use this space as a respite area for heat dome days.
- Supplement gas-fired hydronic systems with air-water heat pumps where feasible
- Add full or partial cooling with electrification upgrades
- Add smoke mitigation ventilation programming to building control systems (close dampers if necessary)
- Add a night-time flush to bring in cooler air to keep the buildings cooler during heat waves/domes
- Install heat pumps for heating and cooling in all new portables and Childcare projects.
- Add climate-controlled irrigation systems to school fields
- Add more EV's to transportation fleet as part of long-term replacement plan
- Participate in BC Hydro Continuous Optimization Program to ensure efficient operation of all mechanical systems controlled by a building automation system
- Monitor building automations systems to ensure systems are operating when necessary to help reduce the waste
- Create a cooling strategy for sites that are capable to use mechanical cooling

2B. Other Sustainability Initiatives

As of September 2022, the Board of Trustees passed the Environmental Stewardship Action Plan (ESAP). The ESAP is a document with 81 actionable items that will operationalize the Board's strategic goal of being a leader in environmental stewardship and sustainability. Some key examples of actions include:

1. Create a GHG emission reduction plan to achieve 2030 targets - **completed Summer 2025**
2. Electrify the school district fleet – **completion summer 2026**.
3. Support the BC Hydro Strategic Energy Management Plan - ongoing

A new Purchasing Policy was adopted in September 2023 which now includes a section dedicated to Sustainable Purchasing. This document can be found at >> https://www.sd68.bc.ca/document/ap-513-purchasing/

2C. Success Stories

Some of our substantial GHG reductions are a result of mechanical upgrades either from updating boiler plants with condensing technology and adding heat pumps to replace or supplement boiler loads and full building automation (DDC) upgrades. Measurement and verification results of building HVAC upgrades and fleet electrification completed in 2024 vs. 2025 are listed below.

For 2025, SD68 was successful in reducing our carbon footprint by 437 tonnes of CO2e related to the HVAC upgrades and operating ten EV busses using *actual usage data normalized for weather*.

Site		Project Type	Calendar Year			Normalized Savings GJ	Normalized Savings tCO2e
			2023 GJ	2024 GJ	2025 GJ		
Cedar Sec	High School	ASHP	1628	1366	1085	281	14
John Barsby	High School	Boiler 3rd	3895	3497	3250	247	12
Cilaire	Elem School	ASHP	332	194	246	-52	-3
P. Valley	Elem School	ASHP	373	253	201	52	3
Bayview	Elem School	DDC	1165	992	798	194	10
Randerson	Elem School	Boiler/DDC	1900	1087	950	137	7
Brechin	Elem School	ASHP		661	288	373	19
Mtn View	Elem School	DDC/AHU x 3		1545	1026	519	26
Rutherford	Elem School	DDC		1481	511	970	49
Uplands	Elem School	DDC		721	572	149	7
Dufferin	Elem School	Boiler		1494	1351	143	7
Forest Park	Elem School	Boiler		953	778	175	9

10 Busses & 8 White fleet	Diverted litres of Gasoline & Diesel fuel >>	90,899	212
		TOTAL	***372***

Executive Sign-off:

Mark Walsh — May 19, 2026

Signature — Date

Mark Walsh — Secretary-Treasurer

Name (please print) — Title

Please email your signed report to Carbon.Neutral@gov.bc.ca by no later than May 31, 2025.