



2022 PSO Climate Change Accountability Report

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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

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

In 2022, Langley School District replaced two natural gas roof top units with heat pump roof top units. This is the first time we've installed heat pump roof top units. It has greatly improved the occupancy comfort while also reducing natural gas consumption. We also retrofitted interior lighting at 8 elementary schools to LED.

Our Strategic Energy Management Plan includes an emission reduction strategy throughout our operations including our buildings. In the short term this includes replacing old less efficient boiler plants with high efficiency condensing boilers and using heat pump technology where feasible such as replacing natural gas roof top units with heat pump roof top units. We are also hopeful to begin implementing heat pumps for domestic hot water applications as the cost reduces and rebates make it a feasible alternative. In the long term we continue to explore deep retrofit options that redesign the heating system in our buildings to have heat pumps as our primary heating source – five of these exploratory studies were performed this year.

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

Langley School District has made significant investments in zero emission vehicles in 2022. We've commissioned two electric vehicle (EV) buses, seven EV transit vans and one plug-in hybrid passenger vehicle in the fleet. We now have ten electrical charging stations for fleet use.

Our District has commissioned a EV transition and infrastructure feasibility study with funding from BC Hydro, BC Government and Federal Government. This will form the basis of our strategy to reduce fuel consumption in our fleet operations by transitioning to EV options where feasible.

We are planning to have a new electrical service at the Maintenance Facility dedicated to EV charging in the near future. This is necessary to meet demands of the EV fleet over the next decade and will allow for expansion options for demands beyond the next decade.

Paper Consumption

Our Sustainable Digital Transformation plan reduces paper consumption in the district through use of technology. The strategy is to first use digital forms and signatures which would allow for unnecessary paper usage. Printers also typically use 30% recycled content and default to printing double sided with a printer release policy to avoid abandoning prints. We continue to reduce our paper emissions by utilizing more digital technology and reducing printing.

2022 GHG Emissions and Offsets Summary Table

School District No.35 (Langley) 2022 GHG Emissions and Offsets Summary	
GHG emissions for the period January 1 - December 31, 2022	
Total BioCO ₂	21.1
Total Emissions (tCO ₂ e)	5911
Total Offsets (tCO ₂ e)	5471
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 to be Retired for 2022 Reporting Year (tCO ₂ e)	5471
Offset Investment (\$)	\$136,775

Retirement of Offsets:

In accordance with the requirements of the *Climate Change Accountability Act* and Carbon Neutral Government Regulation, School District No.35 (Langley) (**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

Climate Risk Management

Langley School District has made infrastructure changes in anticipation of more extreme weather due to climate change. By replacing old inefficient heating equipment with heat pumps where feasible. This has the added benefit of having cooling and provides relief during heat waves. These heat pumps also have natural gas backup for extreme cold weather where the heat pumps may not produce enough heat. By having heat pumps with natural gas back up this allows us to be more resilient during a time with more extreme weather events.

During the pandemic all district air filters were changed to MERV13 and this is anticipated to continue. This will have the added benefit of better air quality in classrooms when there is wildfire smoke. We have also changed operational procedures when there is wildfire smoke to ensure the best possible classroom air quality.

Other Sustainability Initiatives

The Administrative Procedure 546 at Langley School District serves as a basis for the energy efficiency and carbon emissions reduction. This is the background of the Procedure - The District takes it as its responsibility for ensuring that every effort is made to conserve energy and resources in order to reduce the District's carbon footprint. This requires an ongoing, integrated and systematic approach to energy management, including assessing performance, setting goals, creating an action plan and tracking and communicating results.

Organics, recycling and garbage waste sorting is standard throughout the District to divert waste from going into landfills.

Success Stories

In 2022, The Langley School District invested into EV buses and white fleet. This undertaking was capital intensive but also involved considerable change management because it is quite a difference from operating vehicles. Charging infrastructure also had to be put in place to ensure the vehicles were able to recharge and perform well the next day. The total cost of ownership is also anticipated to be much lower compared to previous vehicles because EVs are cheaper to operate with less maintenance required.

Executive Sign-off:



Signature

May 29, 2023

Date

Mal Gill

Name (please print)

SUPERINTENDENT

Title