

2023 CLIMATE CHANGE ACCOUNTABILITY REPORT

School District 54 (Bulkley Valley)

Declaration statement:

This PSO Climate Change Accountability Report for the period January 1, 2023 to December 31, 2023 summarizes our greenhouse gas (GHG) emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2023 to minimize our GHG emissions, and our plans to continue reducing emissions in 2024 and beyond.

2023 Key Projects

Silverthorne Elementary

- Commissioned a computer controls system that runs the heating and ventilation system. This includes a analytics program called Kaizen that constantly hunts for anomalies in the system. The program increases efficiencies in the system as well as reduces equipment failure while understanding energy draws and heat.
- Implementation of heat pumps (in pictures below) including air source and fluid to fluid reclaim.
- Condensing boilers provide supplemental heating when outside temperatures are too low for air source heat pump.
- Current stats of the system indicate the lead boiler enables around -8 C. All heating above this temperature is provided by heat pumps.

2021 to 2023 Comparison: Natural gas consumption was reduced by about \$10,000 per year (60% cost reduction, 45 tons Co2 per year). There was also an increase to Hydro of \$5,000 (35% increase). The increase to hydro also includes the additional electrical load for providing chilled air through the heat pumps.

Telkwa Elementary

- Ventilation upgrade. This upgrade consists of new heat recovery ventilators, new water source and air source heat pumps which are similar to the system installed at Silverthorne Elementary .
- The DDC computer system was replaced which controls heating and ventilation to provide maximum efficiency and energy savings.
- Envelope upgrade to continue in phase two. This upgrade will increase R-value using vented ridged insulation to reduce thermal bridging. New triple pane windows will be installed through out the building.

Smithers Secondary

- Commissioned an energy reduction audit. The audit will study aging school heating and ventilation systems and provide recommendations for system renewal. A system upgrade will provide reduced fuel consumption and over all building energy use and comfort and include design concept ideology.
- Commissioning and fine tuning of the Variable Air Volume (VAV) system that was installed in 12 classrooms. This system will reduce energy consumption by 20-30 % from previous set up.

Twain Elementary

- Two classrooms were renovated at the school. These renovations include exterior wall insulation with Rockwool insulation, LED lighting upgrade with occupational sensors that turn lights off after being unoccupied for 5 minutes.
- Phase one School envelope upgrade. This will include added insulation with vented ridged insulation to reduce thermal bridging and trapped moisture. New metal cladding to cover the insulation up grade. New triple pane window installation throughout the building.

Other – District Wide

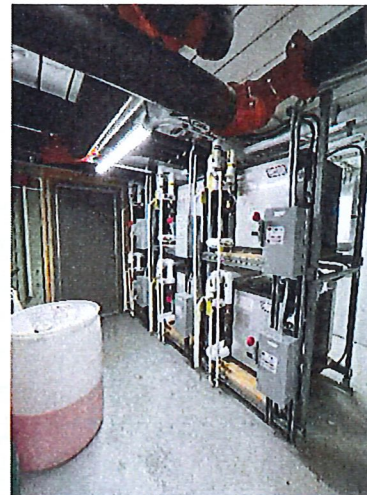
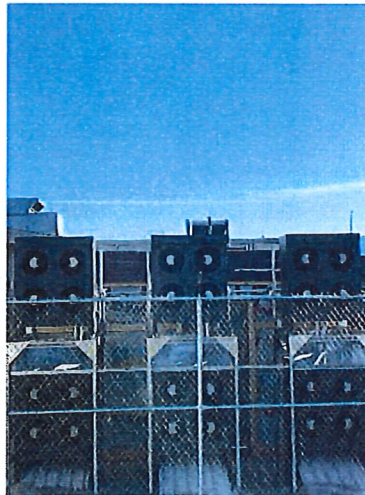
UPGRADE TO LED LIGHTING AND INSTALL OCCUPATIONAL SENSORS

- Continuing with 2'x4' LED lighting and occupational sensors, installing a additional 200 lights this past year.

ELECTRIC HYBRID CARS

- Purchase of two electric hybrid vehicles.

Silverthorne Heat Pump




Emissions and Offset Summary Table:

School District 54 (Bulkley Valley) 2023 GHG Emissions and Offsets Summary	
GHG emissions for the period January 1 - December 31, 2023	
Total BioCO ₂	16.5
Total Emissions (tCO _{2e})	1014
Total Offsets (tCO _{2e})	1030
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO _{2e})	
Grand Total Offsets for the 2023 Reporting Year	
Grand Total Offsets to be Retired for 2023 Reporting Year (tCO _{2e})	1030
Offset Investment (\$)	\$25750.00

Retirement of Offsets:

In accordance with the requirements of the *Climate Change Accountability Act* and Carbon Neutral Government Regulation, School District No.54 (Bulkley Valley) is responsible for arranging for the retirement of the offset’s obligation reported above for the 2023 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 Signoff:



 Dave Margem
 Secretary Treasurer

 Date April 10/24.