School District 79 (Cowichan Valley) 2019 Carbon Neutral Action Report





Declaration statement

This is the 2019 Carbon Neutral Action Report for School District 79 Cowichan Valley. This report is for the period January 1st to December 31st, 2019 summarizing our emissions profile, the actions we have taken in 2019 to reduce our GHG emissions, the amount of offsets purchased to reach net zero emissions and our plan to continue reducing emissions in 2020 and beyond.

By June 30, 2020 School District 79 Cowichan Valley's final CNAR will be posted to our website at www.sd79.bc.ca,

Executive Summary

The Cowichan Valley School District is continuing to work towards reducing their Greenhouse Gas emissions. The actions of the school district have a tremendous impact on the community it serves. In 2009, the district adopted a policy on Resource Management and Sustainability and formed a Sustainability Committee whose mandate was to deal with issues that contribute to the district's carbon footprint. The district adopted long-term reduction goals, which fall in line with the BC Energy Plan and Bill 44-2007: Greenhouse Gas Reduction Targets Act.

Due to reduced energy consumption over the past 11 years, Cowichan Valley School District's electrical consumption was down by 39% and natural gas consumption was down by 29% for the 2018/19 school year compared to the 2007/08 school year. As well, Cowichan Valley School District has been making an effort to switch to cleaner energy sources, which has resulted in a large reduction in Greenhouse Gas emissions. These efforts are noticeable all across the district influencing students and staff to become more aware of environmental issues. Cowichan Valley School District continues to upgrade and optimize mechanical systems, which have significantly reduced the district's carbon footprint. In 2019, the district continued with its window and building envelope projects. Another major project was completing the installation of heat pumps for all of the district's portables. These projects have a large impact on occupant comfort and heating energy consumption. The district continues to optimize bus routing to minimize bus runs and driving distances. The district has also continued to do exterior lighting upgrade projects.

2019 Greenhouse Gas Emissions

School District 79 Cowichan Valley GHG Emissions and Offset for 2019 (TCO2E) Grand Total Offsets for the 2019 Reporting Year:	

Offsets Applied to Become Carbon Neutral in 2019

As per the directive issued on March 31, 2020, the 2019 offsets are based on 2018 total offsets as reported in the Clean Government Reporting Tool (CGRT). Any variation between this 'placeholder' total and the actual 2019 total offsets will be reflected in the 2020 offset invoice, along with any annual prior year adjustments made to 2018 or earlier reporting years.

The total GHG Emissions required to be offset to become Carbon Neutral for 2019 was 1,783 tonnes CO2e. This resulted in a charge of \$44,575.00 plus GST making it a total payment of \$46,803.75.

Retirement of Offsets

In accordance with the requirements of the Greenhouse Gas Reduction Targets Act and Carbon Neutral Government Regulation, School District 79 Cowichan Valley is responsible for arranging for the retirement of the offsets obligation reported above for the 2019 calendar year, together with any adjustments reported for past calendar years. The district hereby agrees that, in exchange for the Ministry of Environment ensuring that these offsets are retired on the district's behalf, the district will pay the associated invoice issued by the Ministry in an amount equal to \$25 per tonne of offsets retired on its behalf plus GST.

Emissions Reduction Activities

Actions Taken to Reduce Greenhouse Gas Emissions in 2019

The Transportation Department has continued to work on bus routes. Due to an overall increase of ridership, the actual distance travelled has increased but through efficient routing this increase has been minimized. Anti-idling software has been activated in all buses so they will shut down after 1 minute of idling.

There is an ongoing Building Envelope project at a school that reopened in 2018; this project will continue through 2020 and will enhance occupant comfort and reduce the consumption of heating energy. The Operations Department has undertaken a number of lighting projects across the district to reduce electrical consumption. These lighting projects are exterior and parking lot LED lighting at various schools. Continuous Optimization projects were completed at two facilities which will result in a significant reduction in electricity, natural gas and fuel oil consumption. The district does end-to-end reviews of all HVAC DDC systems annually. This identifies and corrects issues that occur throughout the year which cause inefficiencies in the heating systems.

Plans to Continue Reducing Greenhouse Gas Emissions 2020 – 2021

The district will continue to implement projects in an effort to reduce energy consumption and Greenhouse Gas emissions. The district will continue with lighting projects, including the continuation of the installation of exterior and parking lot LED light fixtures at schools across the district.

The district will be completing a major heating plant upgrade at one elementary school as well as the Maintenance Shop and Bus Garage. The heating plants for the Maintenance Shop and Bus Garage will make a large impact toward emissions reduction because they will be replacing oil-fired boilers with heat pumps. The district is also continuing a building envelope project at one site. These projects will have a large impact on occupant comfort and the reduction of heating energy and greenhouse gas emissions.

The district is making plans towards the purchase of their first electric bus with the intention of increasing their fleet of electric buses in future years.

The communication of Energy Efficient and Sustainable practices will continue district wide in an effort to promote the overall awareness of sustainability issues.