

To: CAO for the Regional and Corporate Services Committee
From: Micha Gutmanis, Environmental Services Coordinator

Date: 2019-07-09
File No: 9010-20

Subject: FVRD's Corporate Greenhouse Gas Emissions for 2018

RECOMMENDATION

THAT the Fraser Valley Regional District Board accept the 2018 Climate Action Revenue Incentive Report for the Fraser Valley Regional District;

AND THAT the Fraser Valley Regional District Board direct staff to report back with a recommendation for specifically allocating the accumulated annual carbon tax refunds towards a cost-effective efficiency upgrade project(s) that will offer significant carbon footprint reductions to the FVRD buildings and/or operations.

STRATEGIC AREA(S) OF FOCUS

Support Environmental Stewardship
Support Healthy & Sustainable Community

PRIORITIES

Priority #2 Air & Water Quality

BACKGROUND

The BC Climate Action Charter is a provincial initiative that was introduced in September 2007 to encourage local governments to reduce energy and emissions from their operations. Participating local governments, including the Fraser Valley Regional District (FVRD), have voluntarily committed to work towards carbon neutral operations.

As a signatory to the Climate Action Charter, the FVRD is required to report annual results of a greenhouse gas (GHG) emissions inventory and a carbon neutral progress survey to the Province as a part of the Climate Action Revenue Incentive Program (CARIP). Local governments that complete the report are eligible to receive a refund of their carbon tax paid on direct fuel purchases with the intention that these funds go towards greenhouse gas emission reduction initiatives.

DISCUSSION

Despite several energy reduction initiatives undertaken by the FVRD, GHG emissions kept showing a steady increase between 2012 and 2017 due to continuing expansion of services. This trend changed in 2018 however, in which for the first time, FVRD's corporate GHG emissions showed a decrease (Figure

1). The FVRD’s corporate GHG emissions in 2018 were 624 tonnes of carbon dioxide equivalent (tCO₂e), an 11% decrease from 2017. This is an exciting and encouraging trend that shows progress is being made to achieving carbon neutrality.

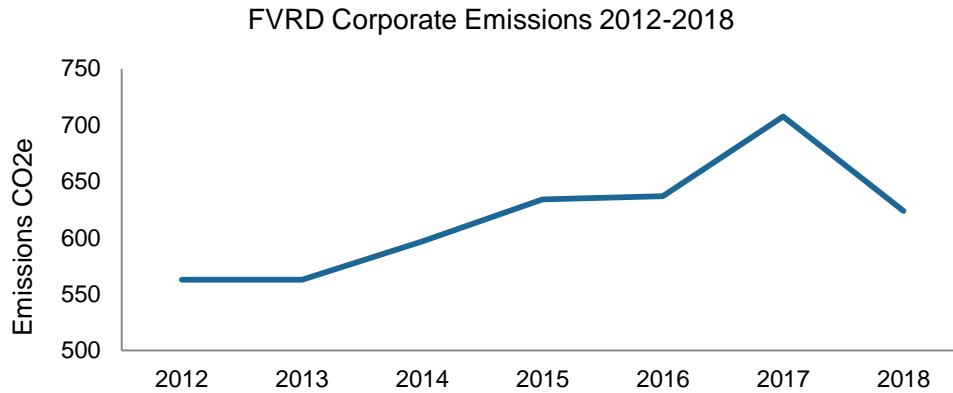


Figure 1: Yearly Corporate FVRD GHG Emissions

Natural gas for heating and hot water has consistently been the biggest GHG contributor (50% in 2017), followed by gasoline and diesel for fleet vehicles (26% combined in 2017). A yearly breakdown of corporate GHG emissions by fuel type can be seen in Figure 2. Reduced use of natural gas was the largest source of carbon reduction by the FVRD in 2018, showing a 37% decrease from 2017. This is likely due to the high efficiency boiler upgrades for the HVAC and installation of an on-demand water system at the main office.

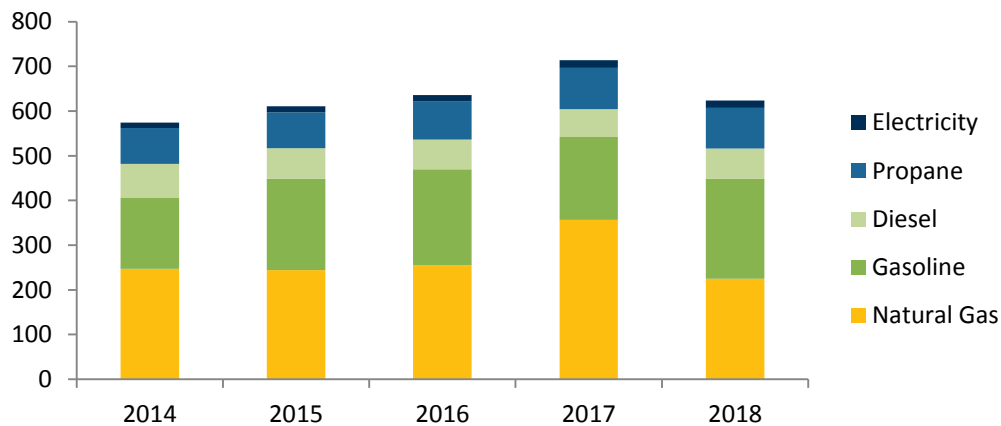


Figure 2: Yearly breakdown of FVRD corporate GHG emissions by fuel type

Despite the decrease in natural gas usage, fleet fuel usage has increased. Gasoline and diesel usage increased by 10% and 2% respectively since 2017; now accounting for 47% of corporate GHG emissions combined. This increase is likely due to the addition of several new fleet vehicles in 2018.

Propane, mostly used in fire departments and the Almer Carlson Pool, is the third largest source of FVRD corporate emissions (14%), and has remained relatively unchanged from last year. Electricity has also remained fairly consistent, and represents approximately 3% of total emissions (Figure 3).

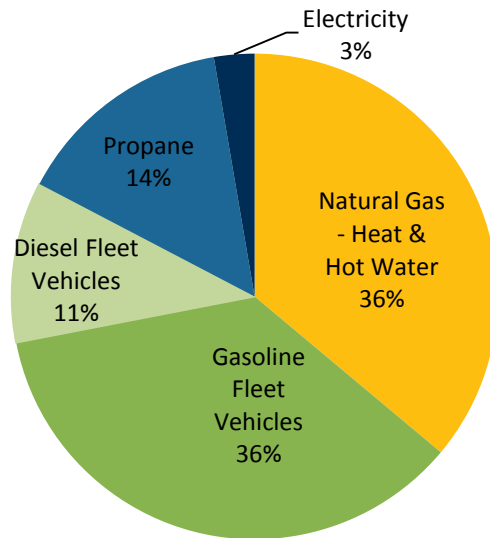


Figure 2: Breakdown of corporate GHG emissions in 2018

The FVRD tracks corporate fuel usage from regular operations; however, contractor fuel usage has been largely unaccounted for. A new fuel tracking policy came into effect in 2018, and fuel usage from third party service providers contracted by the FVRD will be reported next year. This will likely result in an increase in emissions next year, but will more accurately reflect the FVRD's GHG emissions.

Results of the Carbon Neutral Progress Survey demonstrate a wide variety of exciting and innovative efforts being undertaken and proposed by the FVRD to continue reducing GHG emissions. Over 100 specific initiatives, coming from all departments, were documented as part of this process. Some highlights of actions include:

- The FVRD has developed a school program called "Love our Air" - an educational and awareness campaign designed to teach grade 5 and grade 10 students about air quality awareness, local concerns, and how to make day-to-day decisions that will reduce their footprint. The curriculum was provided to 50 schools across the region during the 2018/2019 school year, with another 45 schools planned for 2019/2020.
- The ongoing success of the Fraser Valley Express (FVX) has become a benchmark for interregional service development. The service to include Sundays and Statutory holidays caused ridership to double on weekends since this expansion.
- In partnership with the FVRD, FoodMesh launched a regional food recovery program connecting local farms, charities, and food industry partners to exchange surplus edible food via an online

app/marketplace. The program has helped reduce 190,000 kgCO₂e (190 tonnes of greenhouse gas emissions) in the process. Current expansion is underway for 2019.

- A regional source separation bylaw was approved in 2018 and will be coming into effect in 2020 which will require all residents and businesses within the region to sort all recycling and organics out of their waste stream.
- Building efficiency upgrades conducted included installing on-demand hot water to improve energy efficiency at the main office.
- The FVRD is working with BC Hydro to install four new High Voltage Utility Connected Level 2 EV chargers for the FVRD's main office.

Additional action items are provided within the attached CARIP Report.

COST

The FVRD is eligible to receive \$19,897 from the Province for the carbon tax paid in 2018.

CONCLUSION

The total amount of corporate emissions listed in this inventory represents a decrease from 2017 inventory levels (decrease of 83.5 tCO₂e, or 11%). While an increase in fleet vehicles has driven up the greenhouse gas emissions for that category, there have been reductions in other areas, such as natural gas usage, likely due to energy efficiency upgrades that occurred in 2018.

The inventory conducted as part of this survey will serve as a useful and informative benchmark for measuring future years' emissions as the FVRD continues to work towards reducing its carbon footprint. With the action initiatives identified, the FVRD should see a reduction in energy consumption and operating costs in the future, demonstrating the FVRD's commitment to reducing their carbon footprint.

COMMENTS BY:

Stacey Barker, Director of Regional Services: Reviewed and supported.

Mike Veenbaas, Director of Financial Services Not available for comment.

Jennifer Kinneman, Acting Chief Administrative Officer : Reviewed and supported.