

To: Regional and Corporate Services Committee

Date: 2018-06-12

From: Micha Gutmanis, Environmental Services Coordinator

File No: 9010-25-004

Subject: Climate Action Revenue Incentive Program – 2017 Greenhouse Gas Emissions Report

RECOMMENDATION

THAT the Fraser Valley Regional District Board receive the Fraser Valley Regional District's Climate Action Revenue Incentive (CARIP) Public Report for 2017;

AND THAT the Fraser Valley Regional District Board adopt the *Corporate Fuel Consumption Tracking Policy* for the purpose of monitoring and reporting fuel usage by third party service providers as a progressive step toward meeting its obligations under the Climate Action Charter.

STRATEGIC AREA(S) OF FOCUS

Support Environmental Stewardship
Support Healthy & Sustainable Community

PRIORITIES

Priority #2 Air & Water Quality
Priority #1 Waste Management

BACKGROUND

The BC Climate Action Charter is a provincial initiative 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 achieving carbon neutral operations by 2012.

As a signatory to the Climate Action Charter, the FVRD is required to report annual results of a Green House 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 completing the report are eligible to receive a refund of their carbon tax paid on direct fuel purchases. These results were submitted to the Province in May 2018 and are provided in the attached report.

DISCUSSION

In 2017, the greenhouse gas (GHG) emissions balance for the FVRD was 707.55 tonnes of carbon dioxide equivalent (tCO₂e). This is the equivalent of driving a car for 3.14 years non-stop, or the equivalent of 5.2 acres of forest being deforested.

The FVRD's use of electric fleet vehicles was able to offset its total balance of GHG emissions by 6.85 tCO₂e and upgrade the FVRD from a Level 2 (Measure GHG Emissions) to a Level 3 (Accelerating Progress on Charter Commitments) in the Green Communities Committee Climate Action Recognition Program. Figure 1 illustrates the approximate breakdown of the FVRD's emissions by source.

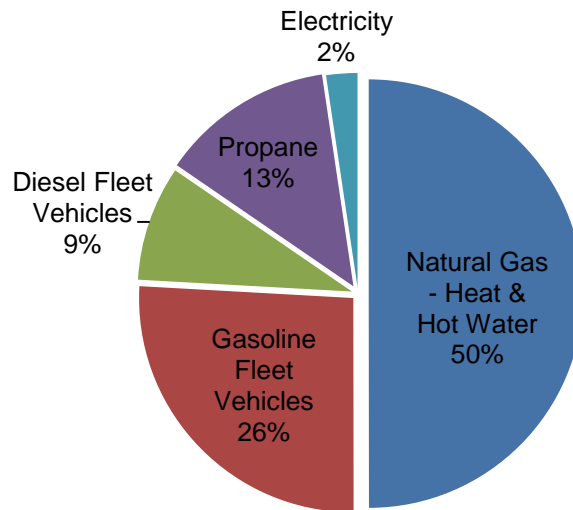


Figure 1: FVRD Corporate GHG Emission Sources - 2017

Natural gas consumption, used for space heating or cooling and hot water, accounts for 50% of corporate emissions, an increase of 10% from 2016. The next largest emission source is comprised of diesel and gas fuel for fleet vehicles (31% combined). Due to the switch to more fuel efficient fleet vehicles, emissions from gasoline dropped by 8% from 2016. Propane, mostly used in fire departments and the North Bend Pool is the third largest source of FVRD corporate emissions, and has remained relatively unchanged from last year. Although electricity usage has increased slightly, it remains unchanged at 2% of total 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 reduce GHG emissions within the region. Nearly 100 specific initiatives, coming from a wide variety of departments were documented as part of this process. Some highlights of actions documented from 2017 include:

Community

- In 2016/17, BC Transit focused efforts on improving ridership by the implementation of marketing initiatives in collaboration with the FVRD. The ongoing success of the Fraser Valley Express (FVX) has become a benchmark for interregional service development. Between 2015/16 and 2016/17, ridership increased by 58% from 72,000 passenger trips to 114,000. The service to include Sundays and Statutory holidays was also completed.
- The FVRD implemented an air quality and climate change education program for elementary (grade 5) and secondary students (grade 10), which was designed to raise awareness of what causes degraded air quality and climate change, and what actions can be taken.

Corporate

- The *Freshet Flooding and Fraser Valley Agriculture: Evaluating Impacts and Options for Resilience Study* was completed. This study calculated losses for flood scenarios in which the information is being used to inform federal and provincial governments of the critical importance of increasing infrastructure funding or flood management in the region.
- Replaced a boiler with two efficient ones in the FVRD Chilliwack office. Domestic hot water tanks were taken out of the FVRD Chilliwack office and replaced with on-demand heating which significantly improves energy efficiency.
- Replaced two old inefficient vehicles with two new Chevrolet Bolt electric vehicles. With EVs now accounting for 50% of the FVRD's pooled electric fleet vehicles (14% of the entire fleet), the FVRD has saved close to 7 tonnes of CO₂ and \$6400 in fuel since their acquisition.

Numerous initiatives for 2018 either planned or underway, including:

Community

- In partnership with the FVRD, FoodMesh has launched a regional food recovery initiative that connects local farms, charities, and food industry partners to exchange surplus edible food via an online app/marketplace.
- The FVRD in 2018 will continue to assess impact capacity for mixed waste materials recovery process in the region to further divert more recyclable and compostable material from the garbage stream. This is a key component of the FVRD Solid Waste Management vision to bring the region closer to zero waste.
- The FVRD will invest \$10.5 million to improve the Nicomen Island Dike and upgrade the pumps. Designing is taking place in 2018. The upgrades will both protect the community from high water and will improve capacity for water movement. The pumping system upgrades will increase the functionality of the pumps to better cope with flooding.

Corporate

- The FVRD is participating in a High Voltage Utility Connected (HVUC) Level 2 Electric Vehicle Charging Demonstration in partnership with BC Hydro and Natural Resources Canada. The FVRD will have 8 new HVUC level 2 chargers installed in the region in 2018.

The FVRD tracks corporate fuel usage from regular operations; however, contractor fuel usage is currently unaccounted for. The FVRD does not have a policy in place to collect fuel usage from third party service providers contracted through the FVRD. The recommended fuel consumption tracking policy will allow the FVRD to be more accurate in the actual GHG emissions from operations, and will be consistent with the provincial reporting platform. Although the addition of contractor fuel usage will increase the FVRD's overall GHG emissions, it will not have an effect on the amount of carbon tax paid back towards the FVRD. A number of services are provided through external contractors and efforts to encourage contractors to improve energy performance and reduce GHG emissions will be an important strategy in order for the FVRD to become carbon neutral.

COST

The FVRD is eligible to receive back the amount paid in carbon tax each year from corporate operations; for 2017, this is equivalent to \$20,635.

CONCLUSION

The total amount of corporate emissions listed in this inventory represents an increase over 2016 inventory levels (increase of 70 tCO₂e). This is likely due to expanding the FVRD fleet vehicle pool for Engineering and Parks trucks; an expansion of Animal Control services and an additional building; the acquisition and operation of a new campground; the addition of back-up generators to various utility systems, and other expansions of services.

While certain new sources of emission have driven the carbon footprint higher, there have been reductions in other areas. 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 outlined in the Carbon Neutral Progress Survey 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:

Barclay Pitkethly, Director of Regional Programs

Reviewed and supported

Mike Veenbaas, Director of Financial Services

Reviewed and supported.

Paul Gipps, Chief Administrative Officer

Reviewed and supported.