**APPENDIX B**

# Capital Region District – Municipalities and Electoral Areas
# 2007 Base Year and 2020 Reporting Year Energy & GHG Emissions Inventory

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# SUMMARY

Climate change has emerged as the next unprecedented social, economic, and environmental challenge facing society today. It poses a serious threat to quality of life, jobs, and physical and natural assets. Scientists believe that the human-production of greenhouse gas (GHG) emissions since pre-industrial times have already surpassed the Earth's "carrying capacity" of natural systems and pose significant future risks to human well-being.

Recognizing the role that Capital Regional District (CRD) plays in achieving a significant and immediate reduction in global GHG emissions, the CRD set a regional GHG reduction target of 61% (from 2007 levels) by 2038. In February 2019, the CRD declared a climate emergency and committed to regional carbon neutrality. Local governments across the region have also set similar ambitious GHG reduction targets and commitments.

To meet these climate commitments, the CRD seeks a better understanding of the energy and GHG emissions at the regional level, as well as at the local government level which includes 13 municipalities and 3 electoral areas. The following document presents a summary of energy and GHG emissions at both the CRD and local government level for the 2007 and 2020 reporting years. This document compliments a 2020 inventory report which describes the methodologies and data sources applied to derive the estimate of GHG emissions for the CRD and local governments. A summary of the 2007 and 2020 energy and GHG emissions by local government is presented in **Table 1** and **Table 2**.

**Table 1. Summary of GHG Emissions By CRD Local Government**

| Local Government | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|
| District of Central Saanich | 97,077 | 96,437 | -0.7% |
| City of Colwood | 82,439 | 76,591 | -7.1% |
| Township of Esquimalt | 96,314 | 80,712 | -16.2% |
| District of Highlands | 11,358 | 14,614 | 28.7% |
| Juan de Fuca Electoral Area | 62,493 | 69,270 | 10.8% |
| City of Langford | 134,791 | 165,160 | 22.5% |
| District of Metchosin | 27,015 | 20,624 | -23.7% |
| District of North Saanich | 63,747 | 54,424 | -14.6% |
| District of Oak Bay | 90,483 | 76,427 | -15.5% |
| District of Saanich | 582,422 | 486,037 | -16.5% |
| Salt Spring Island Electoral Area | 48,689 | 42,920 | -11.8% |
| Town of Sidney | 62,744 | 53,276 | -15.1% |
| District of Sooke | 51,194 | 55,790 | 9.0% |
| City of Victoria | 484,582 | 408,761 | -15.6% |
| Town of View Royal | 49,949 | 54,477 | 9.1% |
| Southern Gulf Islands Electoral Area | 30,803 | 27,730 | -10.0% |

**Table 2. Summary of Energy Use By CRD Local Government**

| Local Government | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) |
|---|---|---|---|
| District of Central Saanich | 1,867,417 | 1,903,819 | 1.9% |
| City of Colwood | 1,533,734 | 1,487,893 | -3.0% |
| Township of Esquimalt | 1,784,465 | 1,565,499 | -12.3% |
| District of Highlands | 217,328 | 291,021 | 33.9% |
| Juan de Fuca Electoral Area | 1,282,178 | 1,399,797 | 9.2% |
| City of Langford | 2,594,734 | 3,335,434 | 28.5% |
| District of Metchosin | 513,449 | 436,613 | -15.0% |
| District of North Saanich | 1,323,026 | 1,234,114 | -6.7% |
| District of Oak Bay | 1,664,925 | 1,484,989 | -10.8% |
| District of Saanich | 11,054,201 | 9,457,076 | -14.4% |
| Salt Spring Island Electoral Area | 1,058,268 | 1,002,959 | -5.2% |
| Town of Sidney | 1,234,379 | 1,096,986 | -11.1% |
| District of Sooke | 961,620 | 1,114,759 | 15.9% |
| City of Victoria | 9,852,916 | 8,467,486 | -14.0% |
| Town of View Royal | 962,988 | 1,080,921 | 12.2% |
| Southern Gulf Islands Electoral Area | 754,738 | 704,290 | -6.7% |

# 1 INTRODUCTION

## 1.1 GHG Emissions & Climate Change

There is overwhelming evidence that global climate change resulting from emissions of carbon dioxide and other greenhouse gases (GHGs) is having a significant impact on the ecology of the planet. In addition, climate change is expected to have serious negative impacts on global economic growth and development. In 2005, the UK government commissioned an independent economic review called the Stern Review, which states that the *"costs of stabilizing the climate are significant but manageable; delay would be dangerous and much more costly"*.

Beyond the costs associated with delayed action, there are cost savings to be realized through efforts to conserve energy and to use it more efficiently, and economic opportunities available to communities that develop local energy supply and infrastructure. Actions to encourage energy efficiency and conservation and to promote implementation of renewable energy will assist local governments in developing energy resilient communities, in addition to mitigating climate change. Local governments are at the forefront of global action on climate change, setting both ambitious commitments and targets while going about the difficult task of reducing emissions. Per the latest report from the C40 Cities Climate Leadership Group, ICLEI Local Governments for Sustainability, UN Habitat, and others, most GHG reduction commitments are set for 2020 or 2050 and range from a 10% to 100% reduction (**Figure 1**).

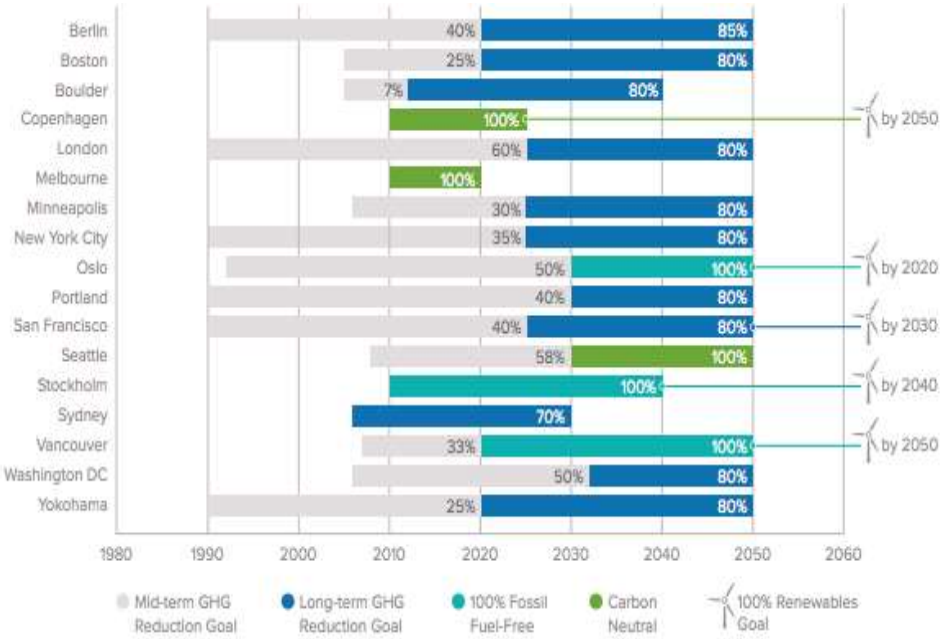


**Figure 1. Summary of Long-Term Global GHG Emission Reduction Targets**[1]

[1] http://www.c40.org/

## 1.2 GPC Protocol

To make informed decisions on reducing energy use and GHG emissions at the regional and local government scale, community managers must have a good understanding of these sources, the activities that drive them, and their relative contribution to the total. This requires the completion of an energy and GHG emissions inventory. To allow for credible and meaningful reporting locally and internationally, the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (the GPC Protocol) was developed as a partnership between ICLEI-Local Governments for Sustainability, The World Resources Institute (WRI) and C40 Cities Climate Leadership Group (C40), with additional collaboration by the World Bank, United Nations Environment Program (UNEP) and UN-Habitat. The GPC Protocol has now become recognized as the standardized way for local governments to collect and report their actions on climate change. Over 9,000 cities have committed to using the GPC Protocol.

The Protocol has two established levels of reporting: BASIC and BASIC+ which are defined as the following:

- The BASIC level covers scope 1 and scope 2 emissions from stationary energy and in-boundary transportation, as well as scope 1 and scope 3 emissions from waste.
- The BASIC+ level covers the same scopes as BASIC and includes more in-depth and data dependent methodologies. Specifically, it expands the reporting scope to include emissions from industrial process and product use (IPPU), agriculture, forestry and other land-use (AFOLU), and transboundary transportation.

## 1.3 Variance from Community Energy and Emissions Inventories (CEEI)

The CRD has historically relied on the Provincial 2007, 2010 and 2012 Community Energy and Emissions Inventories (CEEI) to baseline and track community GHG emissions. However, there have been some limitations to the CEEI in that it is an in-boundary inventory, the most recent version published is for 2012, and the CEEI Protocol does not fully meet the requirements of the GPC Protocol BASIC or BASIC+ reporting requirements which is the required reporting standard for local governments that have committed to the Global Covenant of Mayors—an agreement led by city networks to undertake a transparent and supportive approach to measure GHG emissions community-wide. A high-level summary of the differences between the CEEI and GPC Protocol inventories are presented in **Table 3**.

**Table 3. Summary of GHG Inventory Scope Differences**

| Reporting Sector | CEEI | GPC BASIC | GPC BASIC+ |
|---|---|---|---|
| Residential Buildings | ✓ | ✓ | ✓ |
| Commercial And Institutional Buildings And Facilities | ✓ | ✓ | ✓ |
| Manufacturing Industries And Construction | ✓ | ✓ | ✓ |
| Energy Industries | | ✓ | ✓ |
| Energy Generation Supplied To The Grid | | ✓ | ✓ |
| Agriculture, Forestry And Fishing Activities | | ✓ | ✓ |
| Non-Specified Sources | | ✓ | ✓ |

| Reporting Sector | CEEI | GPC BASIC | GPC BASIC+ |
|---|---|---|---|
| Fugitive Emissions From Mining, Processing, Storage, And Transportation Of Coal | | ✓ | ✓ |
| Fugitive Emissions From Oil And Natural Gas Systems | | ✓ | ✓ |
| On-Road Transportation | ✓ | ✓ | ✓ |
| Railways | | ✓ | ✓ |
| Waterborne Navigation | | ✓ | ✓ |
| Aviation | | ✓ | ✓ |
| Off-Road Transportation | | ✓ | ✓ |
| Solid Waste | ✓ | ✓ | ✓ |
| Biological Waste | ✓ | ✓ | ✓ |
| Incinerated And Burned Waste | | ✓ | ✓ |
| Wastewater | | ✓ | ✓ |
| Emissions From Industrial Processes | | | ✓ |
| Emissions From Product Use | | | ✓ |
| Emissions From Livestock | ✓ | | ✓ |
| Emissions From Land | | | ✓ |
| Emissions From Aggregate Sources And Non-$CO_2$ Emission Sources On Land | ✓ | | ✓ |

## 1.4 Purpose of Document

The purpose of this document is to provide the 2007 and 2020 GPC BASIC+ energy and GHG emissions inventories at the regional and local government level. This document compliments a 2020 inventory report which describes the methodologies and data sources applied to derive the estimate of GHG emissions for the CRD region and local governments.

# 2 INVENTORY SCOPE

## 2.1 GPC BASIC+ Inventory Scope

In accordance with the GPC Protocol, the 2007 and 2020 BASIC+ GHG inventories presented herein accounts for GHG emissions from the following Reporting Sectors:

- **Stationary Energy** – These are GHG emissions from fuel combustion, fugitive emissions, and some off-road transportation sources (e.g. construction equipment, residential mowers, etc.). They include the emissions from energy to heat and cool residential, commercial, institutional, and light/heavy industrial buildings, as well as the activities that occur within these residences and facilities.
- **Transportation** – These are GHG emissions from the combustion of fuels as a result of vehicular on-road, off-road, including marine, aviation, and other off-road, and trans-boundary journeys.
- **Waste** – These are GHG emissions from the disposal and management of solid waste, the biological treatment of waste, and wastewater treatment and discharge. Waste does not directly consume energy, but releases GHG emissions because of decomposition, burning, and other management methods.
- **Industrial Process and Product Use (IPPU)** – These are GHG emissions from products such as refrigerants, foams or aerosol cans can release potent GHG emissions, known as product use GHG emissions. There are no known industrial process emissions in the CRD.
- **Agriculture, Forestry and Other Land-Use (AFOLU)** – These are GHG emissions that are captured or released as a result of land-management activities. These activities can range from the preservation of forested lands to the development of crop land. This Sector includes GHG emissions from land-use change, manure management, livestock, and the direct and indirect release of nitrous oxides ($N_2O$) from soil management, urea application, fertilizer and manure application.

  Due to limitations in how to quantify GHG emissions resulting from land use change (e.g., residential development), these GHG emissions have been excluded from the GHG emissions inventories presented herein but have been disclosed.

## 2.2 GHG Emissions Boundary

The GHG inventories are defined geographically by the CRD, which includes 13 municipalities and 3 electoral areas, as shown in Figure 2.

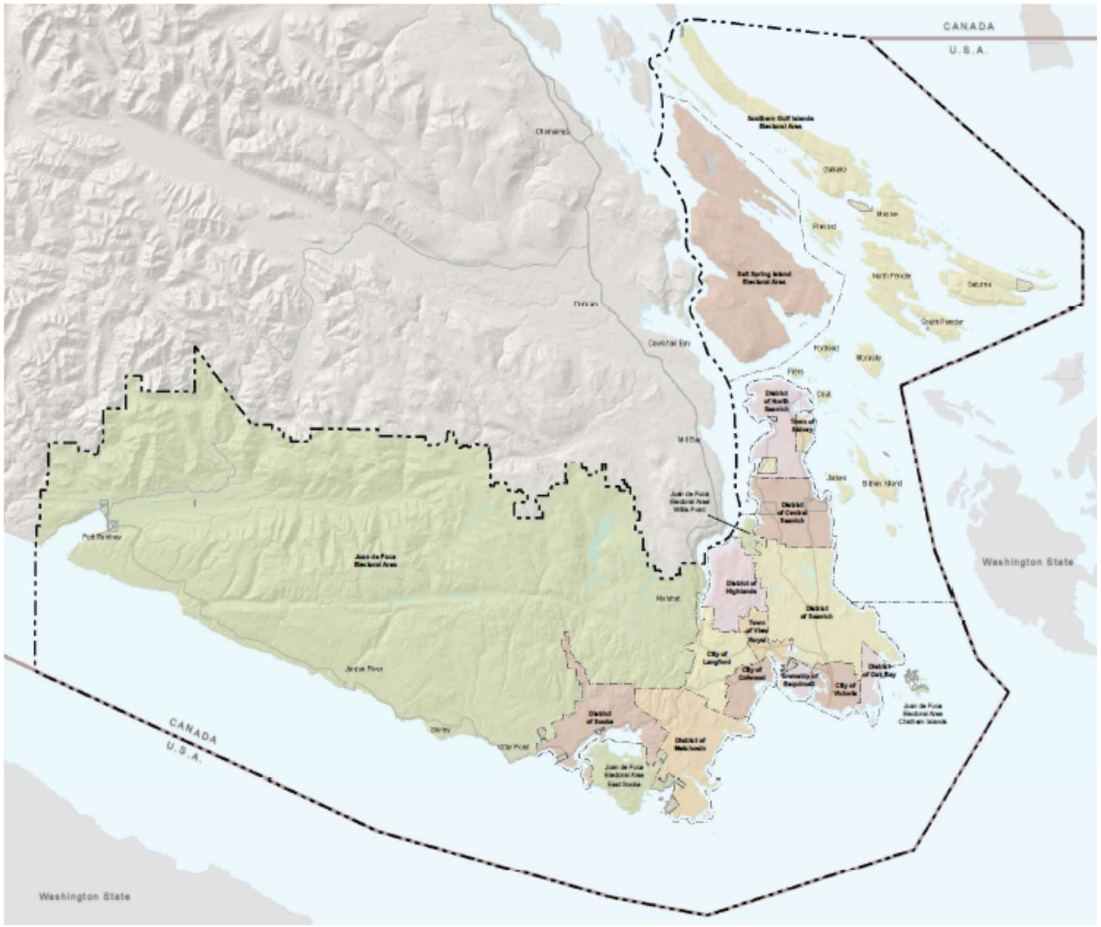


**Figure 2 CRD GHG Boundary**

## 2.3 Assumptions & Disclosures

The following inventories covers all GHG emissions for the 2007 and 2020 reporting years. Where data was not available, the most recent year's data have been used, and the timescale noted accordingly. These disclosures are as follows:

- **Global Warming Potentials (GWP)**. The BC government is currently applying GWPs from the fourth IPCC report despite the fact that there are updated GWPs in available in the fifth IPCC report. On this basis, the CRD is applying GWPs from the fourth IPCC report.
- **Stationary Energy: Emission Factors.** The BC Government updated 2010-2020 electricity emission factors to include emissions from imported electricity resulting in a 5-10% increase in GHG emissions intensities. Since there was no update to the 2007, the BC Government has suggested utilizing the 2010 emission factor for 2007.

- **Stationary Energy: Electricity Data.** In 2019, the Province of BC received updated electricity data for 2007-2018 as a systematic error was uncovered across all years of BC Hydro data. The 2007 inventory was updated with the corrected information.
- **Stationary Energy: Residential, Commercial and Institutional Buildings**. Propane, and wood GHG emissions were estimated using linear regression methods. The data used in the estimates included historical propane and wood energy data published in the 2007, 2010 and 2012 CEEIs, and heating degree days (HDD) published by Environment and Climate Change Canada. This approach was also applied to the estimate of heating oil for all local governments, except the City of Victoria and District of Saanich. For the District of Saanich and the City of Victoria, heating oil GHG emissions were estimated based on the number of known tanks, average heated floor areas and fuel volume intensity.
- **Stationary Energy: Fugitives**. Fortis BC provided total fugitive emissions for the 2020 reporting year at the CRD level. Since no historical numbers were provided, the 2020 value was applied to the 2007 base year as well.
- **Transportation: On-Road**. The on-road transportation emissions are based on the total estimated fuel sales in the CRD, and the number of registered vehicles. Insurance Corporation of BC (ICBC) compiles data on an April 1 to March 31 basis, and thus the current on-road GHG emission estimate is based on the number of registrations from April 1, 2020 – March 31, 2021.
- **Transportation: Aviation.** 2020 aviation GHG emissions were estimated using 2015 aircraft flight profiles (the last available data), and the total number of aircraft movements reported in 2020.
- **Transportation: Waterborne Recreational Watercraft.** GHG emissions from recreational watercraft and US/Canada ferries were estimated based on a publicly available year 2000 study for the Victoria, Vancouver, and Washington harbors.
- **Transportation: Ferries.** BC Ferries did not disclose its total reported fuel use for 2020 but did publish that fuel consumption volumes fell by approximately 40% as compared to the 2019 reporting year. As such, the 2019 fuel volumes and the 40% factor were applied to estimate 2020 fuel volumes.
- **Transportation: Cruise Ships.** The Greater Victoria Harbour Authority (GVHA) reported on cruise ship emissions for the 2010 and 2018 reporting years but did not provide an estimate for 2007. As a result, the 2010 GHG emissions estimate and number of cruise ship visits to Ogden Point was used to create a proxy to estimate 2007 cruise ship emissions. The GVHA reported 163 visits in 2007. As a result of COVID-19 restrictions, there were no cruise ships in 2020.
- **Waste: Solid Waste.** To quantify GHG emissions from the Hartland Landfill, the CRD utilized the waste-in-place (WIP) method which is accepted under the GPC Protocol. The WIP assigns landfill emissions based on total waste deposited during that year. It counts GHGs emitted that year, regardless of when the waste was disposed. Except for the City of Victoria, who claims 31% of the CRD's landfill GHG emission, the remaining landfill GHG emissions were allocated to each local government on a per capita basis. Using this allocation method, the CRD members may over, or underestimate associated solid waste GHG emissions as the current year landfill GHG emissions are based upon cumulative waste over time, and each member may have contributed more waste in past years than the current year (and vice versa).
- **AFOLU: Aggregate Sources And Non-$CO_2$ Emission Sources On Land.** These emissions are based on the 2021 NIR as prepared by ECCC and the total area of

farmland BC in 2016 as reported by Statistics Canada. These GHG emissions were assigned to each local government on a per hectare (ha) of cropland basis.

- **AFOLU: Land-Use.** The land cover change analysis requires a consistent land-use category attribution and spatial data. For parts of the CRD, spatial data was available for the 2007, 2011 and 2019 reporting years. Differences between these data sets in terms of resolution and their timing of collection increase the uncertainty as to the accuracy of the land-use classifications. For example, the 2007 and 2011 land use data was collected at different times of the year and may not accurately reflect tree cover. Furthermore, no land use spatial data was collected the Juan de Fuca, Salt Spring Island and Gulf Islands and thus Annual Crop Inventory (ACI) settlement data collected by Agriculture Canada was used to inform the analysis. The challenge in utilizing this data is that it is provided in a 30m resolution. Furthermore, since annual data is not available, the change between land cover data years (2007-2011, 2011-2019) for all areas was averaged and may not represent actual changes in each year. Since no data was available for 2020, the 2019 estimates were applied.

Details surrounding all GHG emissions sources quantification methods, assumptions, and assessment of uncertainties are contained in a complimentary GHG emissions methodology document and are not presented herein.

# 3 CAPITAL REGIONAL DISTRICT ENERGY & GHG EMISSIONS

## 3.1 Base Year (2007) Energy & GHG Emissions

In 2007, the CRD's GHG BASIC+ emissions totaled 1,976,100 $tCO_2e$. Buildings are the CRD's second largest GHG emissions source at 35%, with 40% of those GHG emissions coming from natural gas for heating and cooling, 21% from heating oil for heating, 17% from electricity use, 7% from wood and propane use for heating and the remainder from other-related off-road activities like residential lawn mowing. On-road transportation GHG emission sources contributed 45% to the GHG inventory, almost all of which came from passenger vehicles, light trucks, and SUVs (83%). Off-road transportation, which includes marine, aviation, and other off-road emission sources contributed 7% to the overall GHG inventory. Solid waste, organic waste treatment methods, and wastewater treatment and discharge accounted for 7% of the total community GHG emissions. IPPU emissions accounted for 4% of total GHG emissions while AFOLU GHG emissions resulted for less than 1% of community GHG emissions.

A summary of the GHG emissions by sector and energy use by source is presented in the following table and figures.

**Table 4. Base Year (2007) CRD Regional GHG Energy & GHG Emissions by Source**

| Source | Type | Consumption | Units | Energy (GJ) | GHG Emissions ($tCO_2e$) |
|---|---|---|---|---|---|
| **Stationary Energy** | | | | | |
| Residential Buildings | Electricity | 2,102,967 | MWh | 7,570,620 | 75,076 |
| | Natural Gas | 2,639,980 | GJ | 2,639,980 | 131,649 |
| | Fuel Oil | 83,335 | L | 2,147,821 | 146,859 |
| | Propane | 10,747 | L | 424,600 | 25,882 |
| | Wood | 1,144,369 | GJ | 1,144,369 | 26,872 |
| | Diesel | 6,750,851 | L | 261,123 | 19,468 |
| Commercial & Industrial Buildings | Electricity | 1,367,919 | MWh | 4,924,469 | 48,835 |
| | Natural Gas | 3,352,456 | GJ | 3,352,456 | 167,179 |
| | Fuel Oil | 6,272 | L | 161,638 | 11,052 |
| | Diesel | 12,173,666 | L | 470,877 | 35,106 |
| Energy Industries | LFG Combustion | | | | 6,956 |
| Agriculture, Forestry And Fishing Activities | Diesel | 21,520,635 | L | 832,418 | 62,060 |
| Natural Gas Fugitive Emissions | | | | | 1,003 |
| **Total** | | | | **23,930,370** | **751,459** |
| **On-Road Transportation** | | | | | |
| Electric Vehicles | Electricity | 51,201 | MWh | 0 | 0 |

| Source | Type | Consumption | Units | Energy (GJ) | GHG Emissions ($tCO_2e$) |
|---|---|---|---|---|---|
| Hydrogen Vehicles | Hydrogen | 0 | L | 0 | 0 |
| Passenger Vehicles | Gasoline + Diesel | 163,062,222 | L | 5,673,042 | 384,119 |
| Light Trucks, Vans, SUVs | Gasoline + Diesel | 142,617,615 | L | 5,003,722 | 343,341 |
| Heavy Duty Vehicles | Gasoline + Diesel | 59,156,416 | L | 2,230,995 | 150,544 |
| Propane Vehicles | Propane | 1,322,222 | L | 33,756 | 2,035 |
| Natural Gas Vehicles | Natural Gas | 0 | kg | 0 | 0 |
| Motorcycles | Gasoline | 1,208,124 | L | 41,874 | 2,885 |
| **Total On-Road Transportation** | | | | **12,983,390** | **882,924** |
| **Off-Road Transportation** | | | | | |
| Marine, Aviation and Other Off-Road Vehicles | Marine Gasoline + Marine Diesel + Jet Fuel | 46,196,808 | L | 1,746,608 | 130,656 |
| **Total Off-Road Transportation** | | | | **1,746,608** | **130,656** |
| **Waste** | | | | | |
| Wastewater | | | | | 18,998 |
| Composting | | | | | 72 |
| Solid Waste | | | | | 111,234 |
| **Total Waste** | | | | | **130,304** |
| **Agriculture Forestry & Other Land Use (AFOLU)** | | | | | |
| Land-Use: Emissions Sequestered **(Disclosure Only - Not Included In Total)** | | | | | -396,487 |
| Land-Use: Emissions Released **(Disclosure Only - Not Included In Total)** | | | | | 151,516 |
| Livestock, Aggregate Sources and Non-$CO_2$ Emission Sources on Land | | | | | 3,408 |
| **Total AFOLU** | | | | | **3,408** |
| **Industrial Process & Product Use (IPPU)** | | | | | |
| Process Use Emissions | | | | | 77,348 |
| **Total IPPU** | | | | | **77,348** |
| **TOTAL** | | | | **38,660,368** | **1,976,100** |
| **TOTAL Per Capita** | | | | **110.0** | **5.6** |

Energy consumption and GHG emissions by source are shown in **Figure 3**, **Figure 4** and **Figure 5**. On-road and transboundary transportation (82%) account for most of the energy consumption in the region.

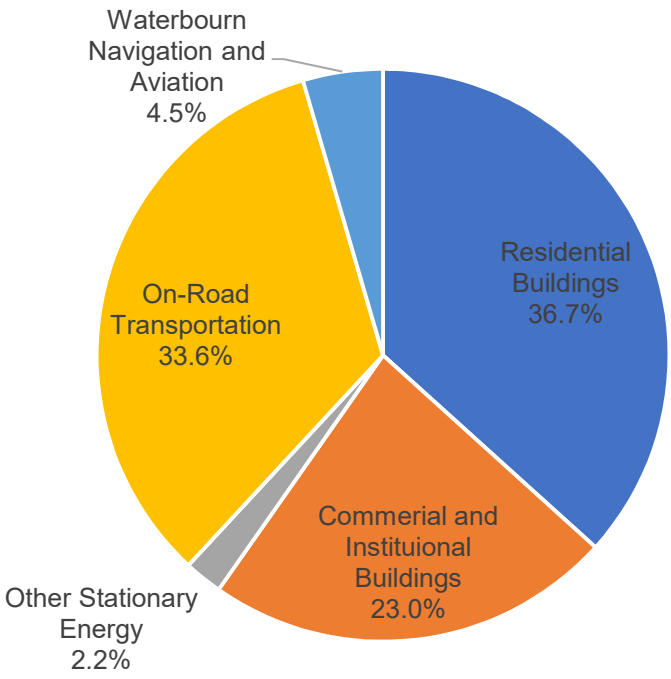


**Figure 3. 2007 Regional Energy Consumption By Sector**

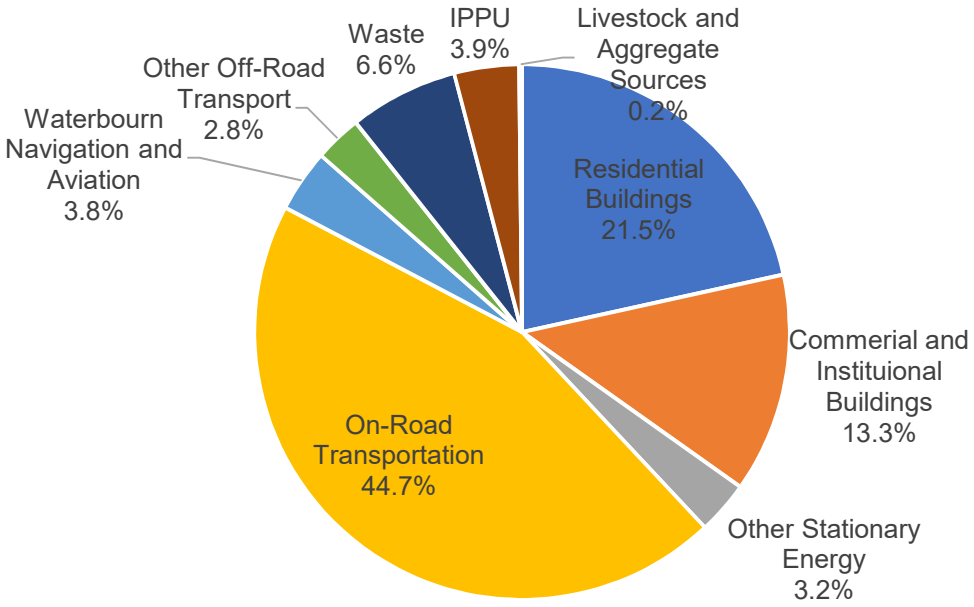


**Figure 4. 2007 Regional GHG Emissions By Sector**

GHG emissions by fuel type is presented in **Figure 5**.

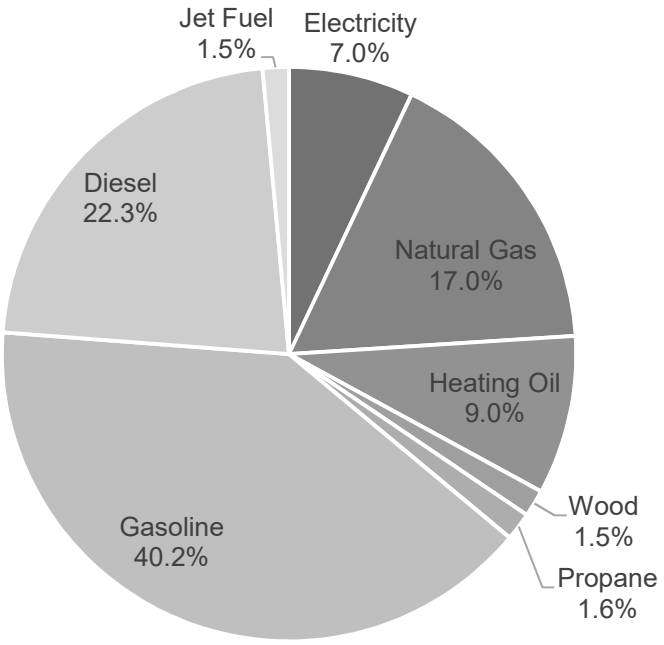


**Figure 5. 2007 Regional GHG Emissions By Fuel Type**

## 3.2 CRD GHG Reduction Target

Recognizing the role that the CRD plays in achieving a significant and immediate reduction in global GHG emissions, the CRD has set a regional GHG reduction target of 61% (from 2007 levels) by 2038. With the CRD's 2007 base year GHG emissions being 1,976,100 $tCO_2e$, a 39% reduction would require a reduction of approximately 770,679 $tCO_2e$. On a per capita basis, this amounts to reducing emissions from approximately 4.3 $tCO_2e$ per person in 2020 to 2.4 $tCO_2e$ per person by 2038.

In February 2019, the CRD declared a climate emergency and committed to regional carbon neutrality.

## 3.3 Reporting Year (2020) Energy & GHG Emissions

In 2020, the CRD's BASIC+ GHG emissions totaled 1,785,814 $tCO_2$. On an absolute basis, this is a 10% decline from the 2007 base year GHG emissions and a decline of 24% on a per capita basis. The 2020 energy and GHG emissions year was not typical in terms of energy and GHG emissions largely due to COVID-19 restrictions and associated closures.

Similar to the 2007 base year, buildings are the second largest GHG emissions source at 40%, with 44% of those GHG emissions coming from natural gas for heating and cooling, 19% from heating oil for heating, 17% from electricity use, 6% from wood and propane use for heating and the remainder from other-related off-road activities like residential lawn mowing. On-road transportation GHG emission sources contributed 44%, almost all of which came from passenger vehicles, light trucks, and SUVs (82%). Off-road transportation, which includes marine, aviation, and other off-road emission sources contributed 5% to the overall GHG inventory. Solid waste, organic waste treatment methods, and wastewater treatment and discharge accounted for 5% of the total community GHG emissions. IPPU emissions

accounted for 7% of total GHG emissions while AFOLU GHG emissions contributed to less than 1% of community GHG emissions.

A summary of the 2020 GHG emissions by sector and energy use by source is presented in the following table and figures.

**Table 5. Reporting Year (2020) CRD Regional GHG Energy & GHG Emissions by Sector**

| Source | Type | Consumption | Units | Energy (GJ) | GHG Emissions ($tCO_2e$) |
|---|---|---|---|---|---|
| **Stationary Energy** | | | | | |
| Residential Buildings | Electricity | 2,085,498 | MWh | 7,507,733 | 83,628 |
| | Natural Gas | 2,567,162 | GJ | 2,567,162 | 128,018 |
| | Fuel Oil | 77,480 | L | 1,996,899 | 136,540 |
| | Propane | 8,782 | L | 346,989 | 21,219 |
| | Wood | 960,568 | GJ | 960,568 | 22,556 |
| | Diesel | 5,503,439 | L | 212,873 | 14,934 |
| Commercial & Industrial Buildings | Electricity | 1,261,996 | MWh | 4,543,149 | 50,606 |
| | Natural Gas | 4,202,648 | GJ | 4,202,648 | 209,576 |
| | Fuel Oil | 5,549 | L | 143,003 | 9,778 |
| | Diesel | 12,216,854 | L | 472,548 | 33,152 |
| Energy Industries | LFG Combustion | | | | 9,563 |
| Agriculture, Forestry And Fishing Activities | Diesel | 20,790,676 | L | 804,183 | 56,418 |
| Natural Gas Fugitive Emissions | | | | | 1,408 |
| **Total** | | | | **23,757,755** | **777,397** |
| **On-Road Transportation** | | | | | |
| Electric Vehicles | Electricity | 124,712 | MWh | 62,328 | 694 |
| Hydrogen Vehicles | Hydrogen | 0 | L | 0 | 0 |
| Passenger Vehicles | Gasoline + Diesel | 89,922,529 | L | 3,125,089 | 195,999 |
| Light Trucks, Vans, SUVs | Gasoline + Diesel | 166,980,928 | L | 5,845,129 | 371,982 |
| Heavy Duty Vehicles | Gasoline + Diesel | 52,705,103 | L | 1,968,957 | 124,065 |
| Propane Vehicles | Propane | 628,682 | L | 16,050 | 911 |
| Natural Gas Vehicles | Natural Gas | 785,220 | kg | 42,240 | 2,282 |
| Motorcycles | Gasoline | 1,074,790 | L | 37,252 | 2,415 |
| **Total On-Road Transportation** | | | | **11,097,044** | **698,348** |
| **Off-Road Transportation** | | | | | |
| Marine, Aviation and Other Off-Road Vehicles | Marine Gasoline + Marine Diesel + Jet Fuel | 31,750,577 | L | 1,208,859 | 86,527 |
| **Total Off-Road Transportation** | | | | **1,208,859** | **86,527** |

| Source | Type | Consumption | Units | Energy (GJ) | GHG Emissions ($tCO_2e$) |
|---|---|---|---|---|---|
| **Waste** | | | | | |
| Wastewater | | | | | 15,035 |
| Composting | | | | | 5,307 |
| Solid Waste | | | | | 66,237 |
| **Total Waste** | | | | | **86,580** |
| **Agriculture Forestry & Other Land Use (AFOLU)** | | | | | |
| Land-Use: Emissions Sequestered **(Disclosure Only - Not Included In Total)** | | | | | -399,707 |
| Land-Use: Emissions Released **(Disclosure Only - Not Included In Total)** | | | | | 89,610 |
| Livestock, Aggregate Sources and Non-$CO_2$ Emission Sources on Land | | | | | 4,261 |
| **Total AFOLU** | | | | | **4,261** |
| **Industrial Process & Product Use (IPPU)** | | | | | |
| Process Use Emissions | | | | | 130,139 |
| **Total IPPU** | | | | | **130,139** |
| **TOTAL** | | | | **36,063,658** | **1,783,251** |
| **TOTAL Per Capita** | | | | **85.9** | **4.2** |

Energy consumption and GHG emissions by source are shown in **Figure 6**, **Figure 7** and **Figure 8**.

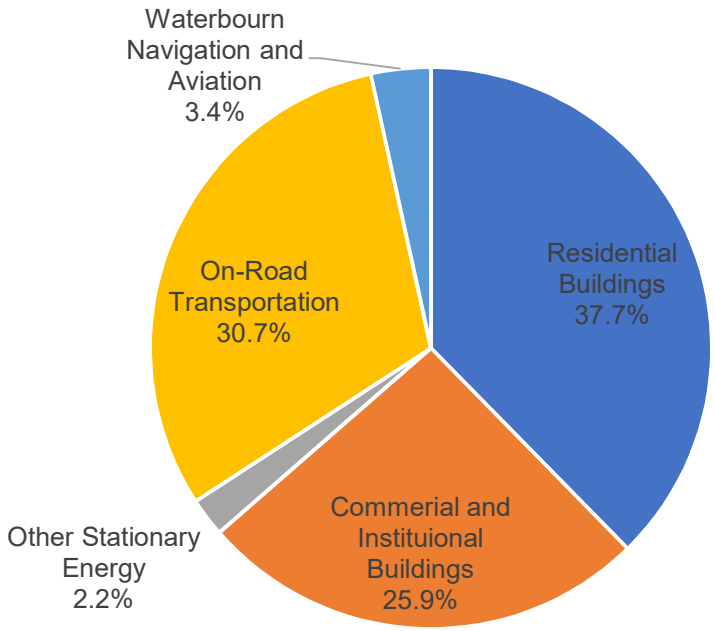

**Figure 6. 2020 Regional Energy Consumption By Sector**

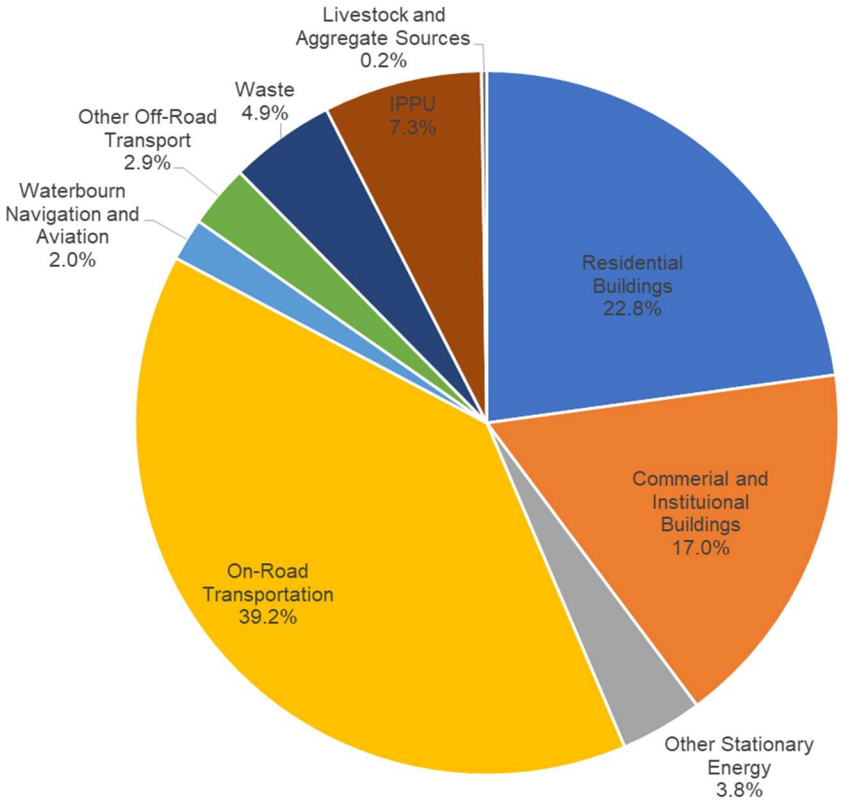


**Figure 7. 2020 Regioanal GHG Emissions By Sector**

GHG emissions by fuel type is presented in **Figure 8**.

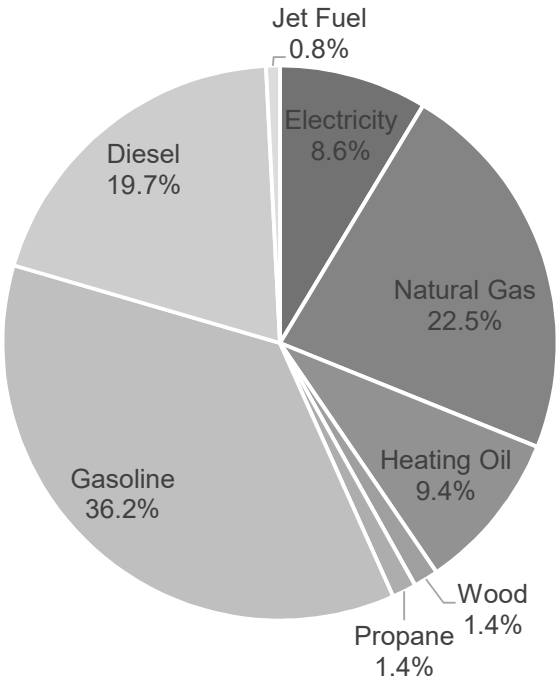


**Figure 8. 2020 Regional GHG Emissions By Fuel Type**

## 3.4 Energy & GHG Emissions Trends

**Table 6** presents the changes between the 2007 and 2020 reporting years, showing that GHG emissions decreased in most reporting sectors. There were decreases in energy consumption in the stationary energy and transportation sectors as a result of COVID-19 restrictions. While there was a corresponding decrease in transportation GHG emissions, there was a slight increase in GHG emissions in the stationary energy sector simply due to the electricity grid emissions factor increasing by approximately 13% from 2007.

There was an increase in composting emissions which is the direct result of waste diversion programs which result in some direct GHG emissions, but overall have a net reduction impact as the process avoids releasing more fugitive methane emissions from the landfill. Total waste emissions declined 34% from the base year as a result.

IPPU GHG emissions increased as these GHG emissions are driven by population and increased by 68%. AFOLU GHG emissions, which accounted for livestock, aggregate sources and non-$CO_2$ emission sources on land, increased 25%.

**Table 6. Change in CRD GHG Energy & GHG Emissions**

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| **Stationary Energy** | | | | | | | |
| Residential Buildings | Electricity | 7,570,620 | 7,507,733 | -0.8% | 75,076 | 83,628 | 11.4% |
| | Natural Gas | 2,639,980 | 2,567,162 | -2.8% | 131,649 | 128,018 | -2.8% |
| | Fuel Oil | 2,147,821 | 1,996,899 | -7.0% | 146,859 | 136,540 | -7.0% |
| | Propane | 424,600 | 346,989 | -18.3% | 25,882 | 21,219 | -18.0% |
| | Wood | 1,144,369 | 960,568 | -16.1% | 26,872 | 22,556 | -16.1% |
| | Diesel | 261,123 | 212,873 | -18.5% | 19,468 | 14,934 | -23.3% |
| Commercial & Industrial Buildings | Electricity | 4,924,469 | 4,543,149 | -7.7% | 48,835 | 50,606 | 3.6% |
| | Natural Gas | 3,352,456 | 4,202,648 | 25.4% | 167,179 | 209,576 | 25.4% |
| | Fuel Oil | 161,638 | 143,003 | -11.5% | 11,052 | 9,778 | -11.5% |
| | Diesel | 470,877 | 472,548 | 0.4% | 35,106 | 33,152 | -5.6% |
| Energy Industries | LFG Combustion | | | - | 418 | 9,563 | 2186.5% |
| Agriculture, Forestry And Fishing Activities | Diesel | 832,418 | 804,183 | -3.4% | 62,060 | 56,418 | -9.1% |
| Natural Gas Fugitive Emissions | | | | - | 1,003 | 1,408 | 40.4% |
| **Total** | | **23,930,370** | **23,757,755** | **-0.7%** | **751,459** | **777,397** | **3.5%** |
| **On-Road Transportation** | | | | | | | |
| Electric Vehicles | Electricity | - | 62,328 | - | - | 694 | - |
| Hydrogen Vehicles | Hydrogen | - | - | - | - | - | - |
| Passenger Vehicles | Gasoline + Diesel | 5,673,042 | 3,125,089 | -44.9% | 384,119 | 195,999 | -49.0% |
| Light Trucks, Vans, SUVs | Gasoline + Diesel | 5,003,722 | 5,845,129 | 16.8% | 343,341 | 371,982 | 8.3% |
| Heavy Duty Vehicles | Gasoline + Diesel | 2,230,995 | 1,968,957 | -11.7% | 150,544 | 124,065 | -17.6% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| Propane Vehicles | Propane | 33,756 | 16,050 | -52.5% | 2,035 | 911 | -55.3% |
| Natural Gas Vehicles | Natural Gas | - | 42,240 | - | - | 2,282 | - |
| Motorcycles | Gasoline | 41,874 | 37,252 | -11.0% | 2,885 | 2,415 | -16.3% |
| **Total On-Road Transportation** | | **12,983,390** | **11,097,044** | **-14.5%** | **882,924** | **698,348** | **-20.9%** |
| **Off-Road Transportation** | | | | | | | |
| Marine, Aviation and Other Off-Road Vehicles | Gasoline + Diesel + Jet Fuel | 1,746,608 | 1,242,888 | -28.8% | 130,656 | 89,090 | -31.8% |
| **Total Off-Road Transportation** | | **1,746,608** | **1,208,859** | **-31.8%** | **130,656** | **86,527** | **-33.8%** |
| **Waste** | | | | | | | |
| Wastewater | | | | | 18,998 | 15,035 | -20.9% |
| Composting | | | | | 72 | 5,307 | 7235.5% |
| Solid Waste | | | | | 111,234 | 66,237 | -40.5% |
| **Total Waste** | | | | | **130,304** | **86,580** | **-33.6%** |
| **Agriculture Forestry & Other Land Use (AFOLU)** | | | | | | | |
| Land-Use: Emissions Sequestered **(Disclosure Only - Not Included In Total)** | | | | | -396,487 | -399,707 | 0.8% |
| Land-Use: Emissions Released **(Disclosure Only - Not Included In Total)** | | | | | 151,516 | 89,610 | -40.9% |
| Livestock, Aggregate Sources and Non-$CO_2$ Emission Sources on Land | | | | | 3,408 | 4,261 | 25.0% |
| **Total AFOLU** | | | | | **3,408** | **4,261** | **25.0%** |
| **Industrial Process & Product Use (IPPU)** | | | | | | | |
| Process Use Emissions | | | | | 77,348 | 130,139 | 68.3% |
| **Total IPPU** | | | | | **77,348** | **130,139** | **68.3%** |
| **TOTAL** | | **38,660,368** | **36,097,687** | **-6.6%** | **1,976,100** | **1,785,814** | **-9.6%** |

**Table 7** presents the changes between the 2007 and 2020 years for each CRD local government.

**Table 7. Change in Member GHG Energy & GHG Emissions**

| Member | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|
| District of Central Saanich | 1,867,417 | 1,903,819 | 1.9% | 97,077 | 96,437 | -0.7% |
| City of Colwood | 1,533,734 | 1,487,893 | -3.0% | 82,439 | 76,591 | -7.1% |
| Township of Esquimalt | 1,784,465 | 1,565,499 | -12.3% | 96,314 | 80,712 | -16.2% |
| District of Highlands | 217,328 | 291,021 | 33.9% | 11,358 | 14,614 | 28.7% |
| Juan de Fuca Electoral Area | 1,282,178 | 1,399,797 | 9.2% | 62,493 | 69,270 | 10.8% |
| City of Langford | 2,594,734 | 3,335,434 | 28.5% | 134,791 | 165,160 | 22.5% |
| District of Metchosin | 513,449 | 436,613 | -15.0% | 27,015 | 20,624 | -23.7% |
| District of North Saanich | 1,323,026 | 1,234,114 | -6.7% | 63,747 | 54,424 | -14.6% |
| District of Oak Bay | 1,664,925 | 1,484,989 | -10.8% | 90,483 | 76,427 | -15.5% |
| District of Saanich | 11,054,201 | 9,457,076 | -14.4% | 582,422 | 486,037 | -16.5% |
| Salt Spring Island Electoral Area | 1,058,268 | 1,002,959 | -5.2% | 48,689 | 42,920 | -11.8% |
| Town of Sidney | 1,234,379 | 1,096,986 | -11.1% | 62,744 | 53,276 | -15.1% |
| District of Sooke | 961,620 | 1,114,759 | 15.9% | 51,194 | 55,790 | 9.0% |
| City of Victoria | 9,852,916 | 8,467,486 | -14.0% | 484,582 | 408,761 | -15.6% |
| Town of View Royal | 962,988 | 1,080,921 | 12.2% | 49,949 | 54,477 | 9.1% |
| Southern Gulf Islands Electoral Area | 754,738 | 704,290 | -6.7% | 30,803 | 27,730 | -10.0% |

# 4 DISTRICT OF CENTRAL SAANICH

## 4.1 2020 Profile

| Profile | |
|---|---|
| Population | 18,353 |
| Dwellings | 7,672 |
| Registered Vehicles | 17,330 |
| Energy (Thousands of GJ) | 1,904 |
| GHG Emissions ($tCO_2e$) | 96,437 |

## 4.2 Energy & GHG Emissions

**Table 8** presents a summary comparison of the District of Central Saanich's 2007 and 2020 energy and GHG emissions.

**Table 8. Estimated Energy and GHG Emissions By Reporting Source**

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| **Stationary Energy** | | | | | | | |
| Residential Buildings | Electricity | 400,574 | 372,185 | -7.1% | 3,972 | 4,146 | 4.4% |
| | Natural Gas | 101,999 | 137,929 | 35.2% | 5,086 | 6,878 | 35.2% |
| | Fuel Oil | 18,644 | 25,623 | 37.4% | 1,275 | 1,752 | 37.4% |
| | Propane | 3,220 | 2,625 | -18.5% | 196 | 161 | -18.2% |
| | Wood | 7,150 | 5,957 | -16.7% | 168 | 140 | -16.7% |
| | Diesel | 11,997 | 9,309 | -22.4% | 894 | 653 | -27.0% |
| Commercial & Industrial Buildings | Electricity | 231,056 | 224,451 | -2.9% | 2,291 | 2,500 | 9.1% |
| | Natural Gas | 152,986 | 147,828 | -3.4% | 7,629 | 7,372 | -3.4% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| | Fuel Oil | - | - | - | - | - | - |
| | Diesel | 21,633 | 20,664 | -4.5% | 1,613 | 1,450 | -10.1% |
| Energy Industries | LFG Combustion | | | - | - | - | - |
| Agriculture, Forestry And Fishing Activities | Diesel | 57,230 | 51,363 | -10.3% | 4,267 | 3,603 | -15.5% |
| Natural Gas Fugitive Emissions | | | | - | 57 | 77 | 36.0% |
| **Total** | | **1,006,488** | **997,933** | **-0.8%** | **27,449** | **28,731** | **4.7%** |
| **On-Road Transportation** | | | | | | | |
| Electric Vehicles | Electricity | - | 3,573 | - | - | 40 | - |
| Hydrogen Vehicles | Hydrogen | - | - | - | - | - | - |
| Passenger Vehicles | Gasoline + Diesel | 278,538 | 158,354 | -43.1% | 18,862 | 9,933 | -47.3% |
| Light Trucks, Vans, SUVs | Gasoline + Diesel | 324,185 | 381,136 | 17.6% | 22,243 | 24,262 | 9.1% |
| Heavy Duty Vehicles | Gasoline + Diesel | 179,749 | 307,951 | 71.3% | 12,153 | 19,279 | 58.6% |
| Propane Vehicles | Propane | 2,375 | 664 | -72.0% | 143 | 38 | -73.7% |
| Natural Gas Vehicles | Natural Gas | - | 43 | - | - | 2 | - |
| Motorcycles | Gasoline | 2,245 | 1,798 | -19.9% | 155 | 117 | -24.7% |
| **Total On-Road Transportation** | | **787,093** | **853,520** | **8.4%** | **53,556** | **53,670** | **0.2%** |
| **Off-Road Transportation** | | | | | | | |
| Marine, Aviation and Other Off-Road Vehicles | Gasoline + Diesel + Jet Fuel | 73,836 | 52,366 | -29.1% | 5,520 | 3,746 | -32.1% |
| **Total Off-Road Transportation** | | **73,836** | **52,366** | **-29.1%** | **5,520** | **3,746** | **-32.1%** |
| **Waste** | | | | | | | |
| Wastewater | | | | | 668 | 592 | -11.4% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| Composting | | | | | 0 | 0 | - |
| Solid Waste | | | | | 5,110 | 2,579 | -49.5% |
| **Total Waste** | | | | | **5,778** | **3,170** | **-45.1%** |
| **Agriculture Forestry & Other Land Use (AFOLU)** | | | | | | | |
| Land-Use: Emissions Sequestered **(Disclosure Only - Not Included In Total)** | | | | | -5,014 | -4,845 | -3.4% |
| Land-Use: Emissions Released **(Disclosure Only - Not Included In Total)** | | | | | 5,925 | 154 | -97.4% |
| Livestock, Aggregate Sources and Non-$CO_2$ Emission Sources on Land | | | | | 1,221 | 1,408 | 15.3% |
| **Total AFOLU** | | | | | **1,221** | **1,408** | **15.3%** |
| **Industrial Process & Product Use (IPPU)** | | | | | | | |
| Process Use Emissions | | | | | 3,554 | 5,711 | 60.7% |
| **Total IPPU** | | | | | **3,554** | **5,711** | **60.7%** |
| **TOTAL** | | **1,867,417** | **1,903,819** | **1.9%** | **97,077** | **96,437** | **-0.7%** |

# 5 CITY OF COLWOOD

## 5.1 2020 Profile

| Profile | |
|---|---|
| Population | 19,373 |
| Dwellings | 7,345 |
| Registered Vehicles | 12,247 |
| Energy (Thousands of GJ) | 1,488 |
| GHG Emissions ($tCO_2e$) | 76,591 |

## 5.2 Energy & GHG Emissions

**Table 9** presents a summary comparison of the City of Colwood's 2007 and 2020 energy and GHG emissions.

**Table 9. Estimated Energy and GHG Emissions By Reporting Source**

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| **Stationary Energy** | | | | | | | |
| Residential Buildings | Electricity | 304,680 | 320,194 | 5.1% | 3,021 | 3,567 | 18.0% |
| | Natural Gas | 100,740 | 159,872 | 58.7% | 5,024 | 7,972 | 58.7% |
| | Fuel Oil | 65,936 | 90,620 | 37.4% | 4,508 | 6,196 | 37.4% |
| | Propane | 11,388 | 9,284 | -18.5% | 694 | 568 | -18.2% |
| | Wood | 25,284 | 21,063 | -16.7% | 594 | 495 | -16.7% |
| | Diesel | 11,473 | 9,826 | -14.4% | 855 | 689 | -19.4% |
| Commercial & Industrial Buildings | Electricity | 159,630 | 134,739 | -15.6% | 1,583 | 1,501 | -5.2% |
| | Natural Gas | 94,097 | 90,451 | -3.9% | 4,692 | 4,511 | -3.9% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| | Fuel Oil | - | - | - | - | - | - |
| | Diesel | 20,689 | 21,813 | 5.4% | 1,542 | 1,530 | -0.8% |
| Energy Industries | LFG Combustion | | | - | - | - | - |
| Agriculture, Forestry And Fishing Activities | Diesel | 54,732 | 54,218 | -0.9% | 4,081 | 3,804 | -6.8% |
| Natural Gas Fugitive Emissions | | | | - | 61 | 98 | 61.1% |
| **Total** | | **848,651** | **912,079** | **7.5%** | **26,656** | **30,930** | **16.0%** |
| **On-Road Transportation** | | | | | | | |
| Electric Vehicles | Electricity | - | 2,215 | - | - | 25 | - |
| Hydrogen Vehicles | Hydrogen | - | - | - | - | - | - |
| Passenger Vehicles | Gasoline + Diesel | 233,329 | 125,517 | -46.2% | 15,797 | 7,871 | -50.2% |
| Light Trucks, Vans, SUVs | Gasoline + Diesel | 265,308 | 274,955 | 3.6% | 18,205 | 17,500 | -3.9% |
| Heavy Duty Vehicles | Gasoline + Diesel | 112,247 | 80,606 | -28.2% | 7,581 | 5,095 | -32.8% |
| Propane Vehicles | Propane | 1,441 | 566 | -60.7% | 87 | 32 | -63.0% |
| Natural Gas Vehicles | Natural Gas | - | 34,784 | - | - | 1,879 | - |
| Motorcycles | Gasoline | 2,145 | 1,893 | -11.8% | 148 | 123 | -17.0% |
| **Total On-Road Transportation** | | **614,470** | **520,536** | **-15.3%** | **41,818** | **32,525** | **-22.2%** |
| **Off-Road Transportation** | | | | | | | |
| Marine, Aviation and Other Off-Road Vehicles | Gasoline + Diesel + Jet Fuel | 70,613 | 55,277 | -21.7% | 5,279 | 3,955 | -25.1% |
| **Total Off-Road Transportation** | | **70,613** | **55,277** | **-21.7%** | **5,279** | **3,955** | **-25.1%** |
| **Waste** | | | | | | | |
| Wastewater | | | | | 397 | 516 | 30.0% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| Composting | | | | | 0 | 0 | - |
| Solid Waste | | | | | 4,887 | 2,722 | -44.3% |
| **Total Waste** | | | | | **5,285** | **3,238** | **-38.7%** |
| **Agriculture Forestry & Other Land Use (AFOLU)** | | | | | | | |
| Land-Use: Emissions Sequestered **(Disclosure Only - Not Included In Total)** | | | | | -2,536 | -3,208 | 26.5% |
| Land-Use: Emissions Released **(Disclosure Only - Not Included In Total)** | | | | | 2,482 | 2,755 | 11.0% |
| Livestock, Aggregate Sources and Non-$CO_2$ Emission Sources on Land | | | | | 2 | 0 | -83.9% |
| **Total AFOLU** | | | | | **2** | **0** | **-83.9%** |
| **Industrial Process & Product Use (IPPU)** | | | | | | | |
| Process Use Emissions | | | | | 3,399 | 5,942 | 74.9% |
| **Total IPPU** | | | | | **3,399** | **5,942** | **74.9%** |
| **TOTAL** | | **1,533,734** | **1,487,893** | **-3.0%** | **82,439** | **76,591** | **-7.1%** |

# 6 TOWNSHIP OF ESQUIMALT

## 6.1 2020 Profile

| Profile | |
|---|---|
| Population | 19,015 |
| Dwellings | 9,268 |
| Registered Vehicles | 11,322 |
| Energy (Thousands of GJ) | 1,565 |
| GHG Emissions ($tCO_2e$) | 80,712 |

## 6.2 Energy & GHG Emissions

**Table 10** presents a summary comparison of the Township of Esquimalt's 2007 and 2020 energy and GHG emissions.

**Table 10. Estimated Energy and GHG Emissions By Reporting Source**

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| **Stationary Energy** | | | | | | | |
| Residential Buildings | Electricity | 282,544 | 258,816 | -8.4% | 2,802 | 2,883 | 2.9% |
| | Natural Gas | 133,315 | 87,824 | -34.1% | 6,648 | 4,380 | -34.1% |
| | Fuel Oil | 116,338 | 159,889 | 37.4% | 7,955 | 10,933 | 37.4% |
| | Propane | 20,190 | 16,460 | -18.5% | 1,231 | 1,007 | -18.2% |
| | Wood | 44,358 | 36,952 | -16.7% | 1,042 | 868 | -16.7% |
| | Diesel | 12,894 | 9,645 | -25.2% | 961 | 677 | -29.6% |
| Commercial & Industrial Buildings | Electricity | 167,991 | 172,756 | 2.8% | 1,666 | 1,924 | 15.5% |
| | Natural Gas | 323,843 | 321,319 | -0.8% | 16,149 | 16,023 | -0.8% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| | Fuel Oil | - | - | - | - | - | - |
| | Diesel | 23,251 | 21,409 | -7.9% | 1,733 | 1,502 | -13.4% |
| Energy Industries | LFG Combustion | | | - | - | - | - |
| Agriculture, Forestry And Fishing Activities | Diesel | - | - | - | - | - | - |
| Natural Gas Fugitive Emissions | | | | - | 44 | 52 | 17.5% |
| **Total** | | **1,124,723** | **1,085,069** | **-3.5%** | **40,231** | **40,248** | **0.0%** |
| **On-Road Transportation** | | | | | | | |
| Electric Vehicles | Electricity | - | 1,968 | - | - | 22 | - |
| Hydrogen Vehicles | Hydrogen | - | - | - | - | - | - |
| Passenger Vehicles | Gasoline + Diesel | 263,197 | 139,858 | -46.9% | 17,819 | 8,771 | -50.8% |
| Light Trucks, Vans, SUVs | Gasoline + Diesel | 215,762 | 225,218 | 4.4% | 14,805 | 14,325 | -3.2% |
| Heavy Duty Vehicles | Gasoline + Diesel | 97,205 | 55,964 | -42.4% | 6,551 | 3,507 | -46.5% |
| Propane Vehicles | Propane | 1,908 | 467 | -75.5% | 115 | 27 | -76.9% |
| Natural Gas Vehicles | Natural Gas | - | 548 | - | - | 30 | - |
| Motorcycles | Gasoline | 2,312 | 2,151 | -7.0% | 159 | 139 | -12.5% |
| **Total On-Road Transportation** | | **580,384** | **426,175** | **-26.6%** | **39,450** | **26,820** | **-32.0%** |
| **Off-Road Transportation** | | | | | | | |
| Marine, Aviation and Other Off-Road Vehicles | Gasoline + Diesel + Jet Fuel | 79,358 | 54,255 | -31.6% | 5,933 | 3,882 | -34.6% |
| **Total Off-Road Transportation** | | **79,358** | **54,255** | **-31.6%** | **5,933** | **3,882** | **-34.6%** |
| **Waste** | | | | | | | |
| Wastewater | | | | | 1,388 | 1,037 | -25.3% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| Composting | | | | | 0 | 95 | - |
| Solid Waste | | | | | 5,493 | 2,672 | -51.4% |
| **Total Waste** | | | | | **6,880** | **3,804** | **-44.7%** |
| **Agriculture Forestry & Other Land Use (AFOLU)** | | | | | | | |
| Land-Use: Emissions Sequestered **(Disclosure Only - Not Included In Total)** | | | | | -828 | -1,152 | 39.2% |
| Land-Use: Emissions Released **(Disclosure Only - Not Included In Total)** | | | | | 1,155 | 1,284 | 11.2% |
| Livestock, Aggregate Sources and Non-$CO_2$ Emission Sources on Land | | | | | 0 | 0 | - |
| **Total AFOLU** | | | | | **0** | **0** | **-** |
| **Industrial Process & Product Use (IPPU)** | | | | | | | |
| Process Use Emissions | | | | | 3,819 | 5,959 | 56.0% |
| **Total IPPU** | | | | | **3,819** | **5,959** | **56.0%** |
| **TOTAL** | | **1,784,465** | **1,565,499** | **-12.3%** | **96,314** | **80,712** | **-16.2%** |

# 7 DISTRICT OF HIGHLANDS

## 7.1 2020 Profile

| Profile | |
|---|---|
| Population | 2,451 |
| Dwellings | 920 |
| Registered Vehicles | 2,657 |
| Energy (Thousands of GJ) | 291 |
| GHG Emissions ($tCO_2e$) | 14,614 |

## 7.2 Energy & GHG Emissions

**Table 11** presents a summary comparison of the District of Highland's 2007 and 2020 energy and GHG emissions.

**Table 11. Estimated Energy and GHG Emissions By Reporting Source**

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| **Stationary Energy** | | | | | | | |
| Residential Buildings | Electricity | 63,637 | 73,144 | 14.9% | 631 | 815 | 29.1% |
| | Natural Gas | 69 | 5,126 | 7281.1% | 3 | 256 | 7281.1% |
| | Fuel Oil | 9,468 | 13,012 | 37.4% | 647 | 890 | 37.4% |
| | Propane | 1,633 | 1,331 | -18.5% | 100 | 81 | -18.2% |
| | Wood | 3,637 | 3,030 | -16.7% | 85 | 71 | -16.7% |
| | Diesel | 1,459 | 1,243 | -14.8% | 109 | 87 | -19.8% |
| Commercial & Industrial Buildings | Electricity | 6,447 | 15,511 | 140.6% | 64 | 173 | 170.3% |
| | Natural Gas | 20,440 | 24,233 | 18.6% | 1,019 | 1,208 | 18.6% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| | Fuel Oil | - | - | - | - | - | - |
| | Diesel | 2,630 | 2,760 | 4.9% | 196 | 194 | -1.3% |
| Energy Industries | LFG Combustion | | | - | - | - | - |
| Agriculture, Forestry And Fishing Activities | Diesel | 6,958 | 6,859 | -1.4% | 519 | 481 | -7.2% |
| Natural Gas Fugitive Emissions | | | | - | 0 | 3 | 1527.9% |
| **Total** | | **116,378** | **146,249** | **25.7%** | **3,374** | **4,259** | **26.2%** |
| **On-Road Transportation** | | | | | | | |
| Electric Vehicles | Electricity | - | 523 | - | - | 6 | - |
| Hydrogen Vehicles | Hydrogen | - | - | - | - | - | - |
| Passenger Vehicles | Gasoline + Diesel | 25,510 | 19,587 | -23.2% | 1,728 | 1,229 | -28.9% |
| Light Trucks, Vans, SUVs | Gasoline + Diesel | 43,712 | 63,436 | 45.1% | 2,999 | 4,044 | 34.9% |
| Heavy Duty Vehicles | Gasoline + Diesel | 21,645 | 53,613 | 147.7% | 1,461 | 3,411 | 133.5% |
| Propane Vehicles | Propane | 779 | 192 | -75.3% | 47 | 11 | -76.8% |
| Natural Gas Vehicles | Natural Gas | - | - | - | - | - | - |
| Motorcycles | Gasoline | 327 | 427 | 30.5% | 23 | 28 | 22.8% |
| **Total On-Road Transportation** | | **91,972** | **137,778** | **49.8%** | **6,258** | **8,729** | **39.5%** |
| **Off-Road Transportation** | | | | | | | |
| Marine, Aviation and Other Off-Road Vehicles | Gasoline + Diesel + Jet Fuel | 8,978 | 6,993 | -22.1% | 671 | 500 | -25.5% |
| **Total Off-Road Transportation** | | **8,978** | **6,993** | **-22.1%** | **671** | **500** | **-25.5%** |
| **Waste** | | | | | | | |
| Wastewater | | | | | 0 | 0 | - |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| Composting | | | | | 0 | 0 | - |
| Solid Waste | | | | | 621 | 344 | -44.6% |
| **Total Waste** | | | | | **621** | **344** | **-44.6%** |
| **Agriculture Forestry & Other Land Use (AFOLU)** | | | | | | | |
| Land-Use: Emissions Sequestered **(Disclosure Only - Not Included In Total)** | | | | | -7,090 | -7,504 | 5.8% |
| Land-Use: Emissions Released **(Disclosure Only - Not Included In Total)** | | | | | 1,957 | 3,157 | 61.4% |
| Livestock, Aggregate Sources and Non-$CO_2$ Emission Sources on Land | | | | | 2 | 4 | 102.2% |
| **Total AFOLU** | | | | | **2** | **4** | **102.2%** |
| **Industrial Process & Product Use (IPPU)** | | | | | | | |
| Process Use Emissions | | | | | 432 | 777 | 79.9% |
| **Total IPPU** | | | | | **432** | **777** | **79.9%** |
| **TOTAL** | | **217,328** | **291,021** | **33.9%** | **11,358** | **14,614** | **28.7%** |

# 8 JUAN DE FUCA ELECTORAL AREA

## 8.1 2020 Profile

| Profile | |
|---|---|
| Population | 5,098 |
| Dwellings | 2,234 |
| Registered Vehicles | 4,212 |
| Energy (Thousands of GJ) | 1,400 |
| GHG Emissions ($tCO_2e$) | 69,270 |

## 8.2 Energy & GHG Emissions

**Table 12** presents a summary comparison of Juan de Fuca Electoral Area's 2007 and 2020 energy and GHG emissions.

**Table 12. Estimated Energy and GHG Emissions By Reporting Source**

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| **Stationary Energy** | | | | | | | |
| Residential Buildings | Electricity | 275,784 | 296,557 | 7.5% | 2,735 | 3,303 | 20.8% |
| | Natural Gas | - | - | - | - | - | - |
| | Fuel Oil | 442,152 | 606,090 | 37.1% | 30,233 | 41,442 | 37.1% |
| | Propane | 82,743 | 67,453 | -18.5% | 5,044 | 4,125 | -18.2% |
| | Wood | 184,018 | 153,297 | -16.7% | 4,321 | 3,600 | -16.7% |
| | Diesel | 3,223 | 2,586 | -19.8% | 240 | 181 | -24.5% |
| Commercial & Industrial Buildings | Electricity | 47,620 | 62,548 | 31.3% | 472 | 697 | 47.5% |
| | Natural Gas | - | - | - | - | - | - |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| | Fuel Oil | - | - | - | - | - | - |
| | Diesel | 5,812 | 5,740 | -1.2% | 433 | 403 | -7.1% |
| Energy Industries | LFG Combustion | | | - | - | - | - |
| Agriculture, Forestry And Fishing Activities | Diesel | 15,377 | 14,269 | -7.2% | 1,146 | 1,001 | -12.7% |
| Natural Gas Fugitive Emissions | | | | - | - | - | - |
| **Total** | | **1,056,729** | **1,208,540** | **14.4%** | **44,624** | **54,752** | **22.7%** |
| **On-Road Transportation** | | | | | | | |
| Electric Vehicles | Electricity | - | 823 | - | - | 9 | - |
| Hydrogen Vehicles | Hydrogen | - | - | - | - | - | - |
| Passenger Vehicles | Gasoline + Diesel | 7,521 | 36,872 | 390.2% | 513 | 2,315 | 351.2% |
| Light Trucks, Vans, SUVs | Gasoline + Diesel | 119,903 | 104,053 | -13.2% | 8,225 | 6,631 | -19.4% |
| Heavy Duty Vehicles | Gasoline + Diesel | 76,109 | 33,664 | -55.8% | 5,174 | 2,129 | -58.9% |
| Propane Vehicles | Propane | 1,830 | 815 | -55.5% | 110 | 46 | -58.1% |
| Natural Gas Vehicles | Natural Gas | - | - | - | - | - | - |
| Motorcycles | Gasoline | 247 | 482 | 94.8% | 17 | 31 | 83.3% |
| **Total On-Road Transportation** | | **205,611** | **176,709** | **-14.1%** | **14,040** | **11,161** | **-20.5%** |
| **Off-Road Transportation** | | | | | | | |
| Marine, Aviation and Other Off-Road Vehicles | Gasoline + Diesel + Jet Fuel | 19,838 | 14,547 | -26.7% | 1,483 | 1,041 | -29.8% |
| **Total Off-Road Transportation** | | **19,838** | **14,547** | **-26.7%** | **1,483** | **1,041** | **-29.8%** |
| **Waste** | | | | | | | |
| Wastewater | | | | | 0 | 0 | 77.5% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| Composting | | | | | 0 | 0 | - |
| Solid Waste | | | | | 1,373 | 716 | -47.8% |
| **Total Waste** | | | | | **1,373** | **717** | **-47.8%** |
| **Agriculture Forestry & Other Land Use (AFOLU)** | | | | | | | |
| Land-Use: Emissions Sequestered **(Disclosure Only - Not Included In Total)** | | | | | -259,223 | -255,625 | -1.4% |
| Land-Use: Emissions Released **(Disclosure Only - Not Included In Total)** | | | | | 31,481 | 706 | -97.8% |
| Livestock, Aggregate Sources and Non-$CO_2$ Emission Sources on Land | | | | | 18 | 6 | -68.5% |
| **Total AFOLU** | | | | | **18** | **6** | **-68.5%** |
| **Industrial Process & Product Use (IPPU)** | | | | | | | |
| Process Use Emissions | | | | | 955 | 1,594 | 67.0% |
| **Total IPPU** | | | | | **955** | **1,594** | **67.0%** |
| **TOTAL** | | **1,282,178** | **1,399,797** | **9.2%** | **62,493** | **69,270** | **10.8%** |

# 9 CITY OF LANGFORD

## 9.1 2020 Profile

| Profile | |
|---|---|
| Population | 44,069 |
| Dwellings | 16,654 |
| Registered Vehicles | 26,768 |
| Energy (Thousands of GJ) | 3,335 |
| GHG Emissions ($tCO_2e$) | 165,160 |

## 9.2 Energy & GHG Emissions

**Table 13** presents a summary comparison of the City of Langford's 2007 and 2020 energy and GHG emissions.

**Table 13. Estimated Energy and GHG Emissions By Reporting Source**

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| **Stationary Energy** | | | | | | | |
| Residential Buildings | Electricity | 514,977 | 724,587 | 40.7% | 5,107 | 8,071 | 58.0% |
| | Natural Gas | 122,432 | 248,420 | 102.9% | 6,105 | 12,388 | 102.9% |
| | Fuel Oil | 103,002 | 141,561 | 37.4% | 7,043 | 9,679 | 37.4% |
| | Propane | 17,793 | 14,505 | -18.5% | 1,085 | 887 | -18.2% |
| | Wood | 39,489 | 32,896 | -16.7% | 927 | 772 | -16.7% |
| | Diesel | 18,289 | 22,352 | 22.2% | 1,364 | 1,568 | 15.0% |
| Commercial & Industrial Buildings | Electricity | 343,772 | 429,804 | 25.0% | 3,409 | 4,788 | 40.4% |
| | Natural Gas | 186,387 | 344,294 | 84.7% | 9,295 | 17,169 | 84.7% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| | Fuel Oil | - | - | - | - | - | - |
| | Diesel | 32,980 | 49,618 | 50.5% | 2,459 | 3,481 | 41.6% |
| Energy Industries | LFG Combustion | | | - | - | - | - |
| Agriculture, Forestry And Fishing Activities | Diesel | 87,246 | 123,333 | 41.4% | 6,505 | 8,652 | 33.0% |
| Natural Gas Fugitive Emissions | | | | - | 81 | 167 | 106.9% |
| **Total** | | **1,466,368** | **2,131,371** | **45.4%** | **43,378** | **67,623** | **55.9%** |
| **On-Road Transportation** | | | | | | | |
| Electric Vehicles | Electricity | - | 4,542 | - | - | 51 | - |
| Hydrogen Vehicles | Hydrogen | - | - | - | - | - | - |
| Passenger Vehicles | Gasoline + Diesel | 364,717 | 284,365 | -22.0% | 24,694 | 17,833 | -27.8% |
| Light Trucks, Vans, SUVs | Gasoline + Diesel | 432,627 | 591,061 | 36.6% | 29,684 | 37,619 | 26.7% |
| Heavy Duty Vehicles | Gasoline + Diesel | 211,623 | 187,913 | -11.2% | 14,314 | 11,886 | -17.0% |
| Propane Vehicles | Propane | 3,348 | 1,547 | -53.8% | 202 | 88 | -56.5% |
| Natural Gas Vehicles | Natural Gas | - | 5,250 | - | - | 284 | - |
| Motorcycles | Gasoline | 3,488 | 3,643 | 4.4% | 240 | 236 | -1.7% |
| **Total On-Road Transportation** | | **1,015,805** | **1,078,322** | **6.2%** | **69,134** | **67,997** | **-1.6%** |
| **Off-Road Transportation** | | | | | | | |
| Marine, Aviation and Other Off-Road Vehicles | Gasoline + Diesel + Jet Fuel | 112,562 | 125,741 | 11.7% | 8,415 | 8,996 | 6.9% |
| **Total Off-Road Transportation** | | **112,562** | **125,741** | **11.7%** | **8,415** | **8,996** | **6.9%** |
| **Waste** | | | | | | | |
| Wastewater | | | | | 621 | 1,093 | 76.0% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| Composting | | | | | 0 | 0 | - |
| Solid Waste | | | | | 7,791 | 6,192 | -20.5% |
| **Total Waste** | | | | | **8,412** | **7,285** | **-13.4%** |
| **Agriculture Forestry & Other Land Use (AFOLU)** | | | | | | | |
| Land-Use: Emissions Sequestered **(Disclosure Only - Not Included In Total)** | | | | | -6,609 | -7,108 | 7.6% |
| Land-Use: Emissions Released **(Disclosure Only - Not Included In Total)** | | | | | 6,886 | 8,316 | 20.8% |
| Livestock, Aggregate Sources and Non-$CO_2$ Emission Sources on Land | | | | | 35 | 52 | 47.7% |
| **Total AFOLU** | | | | | **35** | **52** | **47.7%** |
| **Industrial Process & Product Use (IPPU)** | | | | | | | |
| Process Use Emissions | | | | | 5,417 | 13,207 | 143.8% |
| **Total IPPU** | | | | | **5,417** | **13,207** | **143.8%** |
| **TOTAL** | | **2,594,734** | **3,335,434** | **28.5%** | **134,791** | **165,160** | **22.5%** |

# 10 DISTRICT OF METCHOSIN

## 10.1 2020 Profile

| Profile | |
|---|---|
| Population | 5,049 |
| Dwellings | 2,018 |
| Registered Vehicles | 3,794 |
| Energy (Thousands of GJ) | 437 |
| GHG Emissions ($tCO_2e$) | 20,624 |

## 10.2 Energy & GHG Emissions

**Table 14** presents a summary comparison of the District of Metchosin's 2007 and 2020 energy and GHG emissions.

**Table 14. Estimated Energy and GHG Emissions By Reporting Source**

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| **Stationary Energy** | | | | | | | |
| Residential Buildings | Electricity | 136,893 | 138,768 | 1.4% | 1,358 | 1,546 | 13.9% |
| | Natural Gas | 8,173 | 10,441 | 27.8% | 408 | 521 | 27.8% |
| | Fuel Oil | 9,003 | 12,373 | 37.4% | 616 | 846 | 37.4% |
| | Propane | 1,553 | 1,266 | -18.5% | 95 | 77 | -18.2% |
| | Wood | 3,457 | 2,880 | -16.7% | 81 | 68 | -16.7% |
| | Diesel | 3,601 | 2,561 | -28.9% | 268 | 180 | -33.1% |
| Commercial & Industrial Buildings | Electricity | 38,037 | 39,630 | 4.2% | 377 | 441 | 17.0% |
| | Natural Gas | 33,858 | 27,808 | -17.9% | 1,688 | 1,387 | -17.9% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| | Fuel Oil | - | - | - | - | - | - |
| | Diesel | 6,494 | 5,685 | -12.5% | 484 | 399 | -17.6% |
| Energy Industries | LFG Combustion | | | - | - | - | - |
| Agriculture, Forestry And Fishing Activities | Diesel | 17,180 | 14,130 | -17.8% | 1,281 | 991 | -22.6% |
| Natural Gas Fugitive Emissions | | | | - | 4 | 4 | 9.7% |
| **Total** | | **258,249** | **255,542** | **-1.0%** | **6,660** | **6,460** | **-3.0%** |
| **On-Road Transportation** | | | | | | | |
| Electric Vehicles | Electricity | - | 970 | - | - | 11 | - |
| Hydrogen Vehicles | Hydrogen | - | - | - | - | - | - |
| Passenger Vehicles | Gasoline + Diesel | 80,035 | 32,755 | -59.1% | 5,421 | 2,057 | -62.1% |
| Light Trucks, Vans, SUVs | Gasoline + Diesel | 110,966 | 92,513 | -16.6% | 7,613 | 5,897 | -22.5% |
| Heavy Duty Vehicles | Gasoline + Diesel | 40,316 | 39,888 | -1.1% | 2,721 | 2,521 | -7.3% |
| Propane Vehicles | Propane | 1,051 | 125 | -88.1% | 63 | 7 | -88.8% |
| Natural Gas Vehicles | Natural Gas | - | - | - | - | - | - |
| Motorcycles | Gasoline | 668 | 414 | -38.1% | 46 | 27 | -41.7% |
| **Total On-Road Transportation** | | **233,036** | **166,665** | **-28.5%** | **15,865** | **10,520** | **-33.7%** |
| **Off-Road Transportation** | | | | | | | |
| Marine, Aviation and Other Off-Road Vehicles | Gasoline + Diesel + Jet Fuel | 22,165 | 14,406 | -35.0% | 1,657 | 1,031 | -37.8% |
| **Total Off-Road Transportation** | | **22,165** | **14,406** | **-35.0%** | **1,657** | **1,031** | **-37.8%** |
| **Waste** | | | | | | | |
| Wastewater | | | | | 0 | 0 | - |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| Composting | | | | | 0 | 0 | - |
| Solid Waste | | | | | 1,534 | 709 | -53.8% |
| **Total Waste** | | | | | **1,534** | **709** | **-53.8%** |
| **Agriculture Forestry & Other Land Use (AFOLU)** | | | | | | | |
| Land-Use: Emissions Sequestered **(Disclosure Only - Not Included In Total)** | | | | | -12,139 | -12,971 | 6.9% |
| Land-Use: Emissions Released **(Disclosure Only - Not Included In Total)** | | | | | 4,011 | 4,030 | 0.5% |
| Livestock, Aggregate Sources and Non-$CO_2$ Emission Sources on Land | | | | | 232 | 294 | 26.3% |
| **Total AFOLU** | | | | | **232** | **294** | **26.3%** |
| **Industrial Process & Product Use (IPPU)** | | | | | | | |
| Process Use Emissions | | | | | 1,067 | 1,611 | 51.0% |
| **Total IPPU** | | | | | **1,067** | **1,611** | **51.0%** |
| **TOTAL** | | **513,449** | **436,613** | **-15.0%** | **27,015** | **20,624** | **-23.7%** |

# 11 DISTRICT OF NORTH SAANICH

## 11.1 2020 Profile

| Profile | |
|---|---|
| Population | 11,965 |
| Dwellings | 5,096 |
| Registered Vehicles | 10,318 |
| Energy (Thousands of GJ) | 1,234 |
| GHG Emissions ($tCO_2e$) | 54,424 |

## 11.2 Energy & GHG Emissions

**Table 15** presents a summary comparison of the District of North Saanich's 2007 and 2020 energy and GHG emissions.

**Table 15. Estimated Energy and GHG Emissions By Reporting Source**

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| **Stationary Energy** | | | | | | | |
| Residential Buildings | Electricity | 375,413 | 355,429 | -5.3% | 3,723 | 3,959 | 6.3% |
| | Natural Gas | 41,591 | 79,120 | 90.2% | 2,074 | 3,946 | 90.2% |
| | Fuel Oil | 5,953 | 8,182 | 37.4% | 407 | 559 | 37.4% |
| | Propane | 1,027 | 837 | -18.5% | 63 | 51 | -18.2% |
| | Wood | 2,286 | 1,905 | -16.7% | 54 | 45 | -16.7% |
| | Diesel | 8,138 | 6,069 | -25.4% | 607 | 426 | -29.8% |
| Commercial & Industrial Buildings | Electricity | 156,437 | 182,752 | 16.8% | 1,551 | 2,036 | 31.2% |
| | Natural Gas | 99,927 | 101,626 | 1.7% | 4,983 | 5,068 | 1.7% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| | Fuel Oil | - | - | - | - | - | - |
| | Diesel | 14,674 | 13,472 | -8.2% | 1,094 | 945 | -13.6% |
| Energy Industries | LFG Combustion | | | - | - | - | - |
| Agriculture, Forestry And Fishing Activities | Diesel | 38,821 | 33,486 | -13.7% | 2,894 | 2,349 | -18.8% |
| Natural Gas Fugitive Emissions | | | | - | 21 | 38 | 80.1% |
| **Total** | | **744,266** | **782,876** | **5.2%** | **17,471** | **19,421** | **11.2%** |
| **On-Road Transportation** | | | | | | | |
| Electric Vehicles | Electricity | - | 3,078 | - | - | 34 | - |
| Hydrogen Vehicles | Hydrogen | - | - | - | - | - | - |
| Passenger Vehicles | Gasoline + Diesel | 208,096 | 105,673 | -49.2% | 14,094 | 6,633 | -52.9% |
| Light Trucks, Vans, SUVs | Gasoline + Diesel | 227,960 | 231,300 | 1.5% | 15,641 | 14,730 | -5.8% |
| Heavy Duty Vehicles | Gasoline + Diesel | 89,923 | 74,597 | -17.0% | 6,043 | 4,691 | -22.4% |
| Propane Vehicles | Propane | 1,012 | 680 | -32.8% | 61 | 39 | -36.8% |
| Natural Gas Vehicles | Natural Gas | - | 231 | - | - | 12 | - |
| Motorcycles | Gasoline | 1,684 | 1,540 | -8.6% | 116 | 100 | -13.9% |
| **Total On-Road Transportation** | | **528,675** | **417,098** | **-21.1%** | **35,956** | **26,238** | **-27.0%** |
| **Off-Road Transportation** | | | | | | | |
| Marine, Aviation and Other Off-Road Vehicles | Gasoline + Diesel + Jet Fuel | 50,085 | 34,140 | -31.8% | 3,744 | 2,442 | -34.8% |
| **Total Off-Road Transportation** | | **50,085** | **34,140** | **-31.8%** | **3,744** | **2,442** | **-34.8%** |
| **Waste** | | | | | | | |
| Wastewater | | | | | 196 | 235 | 19.8% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| Composting | | | | | 0 | 0 | - |
| Solid Waste | | | | | 3,467 | 1,681 | -51.5% |
| **Total Waste** | | | | | **3,663** | **1,916** | **-47.7%** |
| **Agriculture Forestry & Other Land Use (AFOLU)** | | | | | | | |
| Land-Use: Emissions Sequestered **(Disclosure Only - Not Included In Total)** | | | | | -5,055 | -5,135 | 1.6% |
| Land-Use: Emissions Released **(Disclosure Only - Not Included In Total)** | | | | | 4,758 | 5,160 | 8.5% |
| Livestock, Aggregate Sources and Non-$CO_2$ Emission Sources on Land | | | | | 502 | 665 | 32.4% |
| **Total AFOLU** | | | | | **502** | **665** | **32.4%** |
| **Industrial Process & Product Use (IPPU)** | | | | | | | |
| Process Use Emissions | | | | | 2,410 | 3,741 | 55.2% |
| **Total IPPU** | | | | | **2,410** | **3,741** | **55.2%** |
| **TOTAL** | | **1,323,026** | **1,234,114** | **-6.7%** | **63,747** | **54,424** | **-14.6%** |

# 12 DISTRICT OF OAK BAY

## 12.1 2020 Profile

| Profile | |
|---|---|
| Population | 18,918 |
| Dwellings | 8,132 |
| Registered Vehicles | 11,966 |
| Energy (Thousands of GJ) | 1,485 |
| GHG Emissions ($tCO_2e$) | 76,427 |

## 12.2 Energy & GHG Emissions

**Table 16** presents a summary comparison of the District of Oak Bay's 2007 and 2020 energy and GHG emissions.

**Table 16. Estimated Energy and GHG Emissions By Reporting Source**

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| **Stationary Energy** | | | | | | | |
| Residential Buildings | Electricity | 370,574 | 323,663 | -12.7% | 3,675 | 3,605 | -1.9% |
| | Natural Gas | 276,642 | 299,206 | 8.2% | 13,795 | 14,921 | 8.2% |
| | Fuel Oil | 66,466 | 91,348 | 37.4% | 4,545 | 6,246 | 37.4% |
| | Propane | 11,487 | 9,364 | -18.5% | 700 | 573 | -18.2% |
| | Wood | 25,469 | 21,217 | -16.7% | 598 | 498 | -16.7% |
| | Diesel | 13,651 | 9,595 | -29.7% | 1,018 | 673 | -33.9% |
| Commercial & Industrial Buildings | Electricity | 106,747 | 95,438 | -10.6% | 1,059 | 1,063 | 0.4% |
| | Natural Gas | 83,140 | 122,251 | 47.0% | 4,146 | 6,096 | 47.0% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| | Fuel Oil | - | - | - | - | - | - |
| | Diesel | 24,616 | 21,300 | -13.5% | 1,835 | 1,494 | -18.6% |
| Energy Industries | LFG Combustion | | | - | - | - | - |
| Agriculture, Forestry And Fishing Activities | Diesel | - | - | - | - | - | - |
| Natural Gas Fugitive Emissions | | | | - | 83 | 110 | 32.6% |
| **Total** | | **978,790** | **993,382** | **1.5%** | **31,454** | **35,280** | **12.2%** |
| **On-Road Transportation** | | | | | | | |
| Electric Vehicles | Electricity | - | 4,154 | - | - | 46 | - |
| Hydrogen Vehicles | Hydrogen | - | - | - | - | - | - |
| Passenger Vehicles | Gasoline + Diesel | 322,115 | 148,012 | -54.1% | 21,812 | 9,282 | -57.4% |
| Light Trucks, Vans, SUVs | Gasoline + Diesel | 199,128 | 235,082 | 18.1% | 13,665 | 14,953 | 9.4% |
| Heavy Duty Vehicles | Gasoline + Diesel | 78,248 | 48,579 | -37.9% | 5,271 | 3,048 | -42.2% |
| Propane Vehicles | Propane | 857 | 239 | -72.1% | 52 | 14 | -73.8% |
| Natural Gas Vehicles | Natural Gas | - | 58 | - | - | 3 | - |
| Motorcycles | Gasoline | 1,771 | 1,506 | -15.0% | 122 | 98 | -20.0% |
| **Total On-Road Transportation** | | **602,119** | **437,628** | **-27.3%** | **40,922** | **27,444** | **-32.9%** |
| **Off-Road Transportation** | | | | | | | |
| Marine, Aviation and Other Off-Road Vehicles | Gasoline + Diesel + Jet Fuel | 84,016 | 53,978 | -35.8% | 6,281 | 3,862 | -38.5% |
| **Total Off-Road Transportation** | | **84,016** | **53,978** | **-35.8%** | **6,281** | **3,862** | **-38.5%** |
| **Waste** | | | | | | | |
| Wastewater | | | | | 1,968 | 1,229 | -37.5% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| Composting | | | | | 0 | 95 | - |
| Solid Waste | | | | | 5,815 | 2,658 | -54.3% |
| **Total Waste** | | | | | **7,783** | **3,982** | **-48.8%** |
| **Agriculture Forestry & Other Land Use (AFOLU)** | | | | | | | |
| Land-Use: Emissions Sequestered **(Disclosure Only - Not Included In Total)** | | | | | -1,461 | -1,846 | 26.3% |
| Land-Use: Emissions Released **(Disclosure Only - Not Included In Total)** | | | | | 1,731 | 1,898 | 9.6% |
| Livestock, Aggregate Sources and Non-$CO_2$ Emission Sources on Land | | | | | 0 | 0 | 68.7% |
| **Total AFOLU** | | | | | **0** | **0** | **68.7%** |
| **Industrial Process & Product Use (IPPU)** | | | | | | | |
| Process Use Emissions | | | | | 4,044 | 5,860 | 44.9% |
| **Total IPPU** | | | | | **4,044** | **5,860** | **44.9%** |
| **TOTAL** | | **1,664,925** | **1,484,989** | **-10.8%** | **90,483** | **76,427** | **-15.5%** |

# 13 THE DISTRICT OF SAANICH

## 13.1 2020 Profile

| Profile | |
|---|---|
| Population | 125,107 |
| Dwellings | 50,365 |
| Registered Vehicles | 81,162 |
| Energy (Thousands of GJ) | 9,457 |
| GHG Emissions ($tCO_2e$) | 486,037 |

## 13.2 Energy & GHG Emissions

**Table 17** presents a summary comparison of the District of Saanich's 2007 and 2020 energy and GHG emissions.

**Table 17. Estimated Energy and GHG Emissions By Reporting Source**

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| **Stationary Energy** | | | | | | | |
| Residential Buildings | Electricity | 2,358,702 | 2,161,003 | -8.4% | 23,391 | 24,071 | 2.9% |
| | Natural Gas | 743,960 | 847,026 | 13.9% | 37,099 | 42,239 | 13.9% |
| | Fuel Oil | 518,953 | 318,823 | -38.6% | 35,484 | 21,800 | -38.6% |
| | Propane | 97,519 | 79,499 | -18.5% | 5,944 | 4,862 | -18.2% |
| | Wood | 216,161 | 180,074 | -16.7% | 5,076 | 4,229 | -16.7% |
| | Diesel | 82,502 | 63,455 | -23.1% | 6,151 | 4,452 | -27.6% |
| Commercial & Industrial Buildings | Electricity | 1,176,089 | 1,004,564 | -14.6% | 11,663 | 11,190 | -4.1% |
| | Natural Gas | 759,454 | 817,053 | 7.6% | 37,872 | 40,744 | 7.6% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| | Fuel Oil | 38,936 | 20,302 | -47.9% | 2,662 | 1,388 | -47.9% |
| | Diesel | 148,774 | 140,861 | -5.3% | 11,092 | 9,882 | -10.9% |
| Energy Industries | LFG Combustion | | | - | 418 | 9,563 | 2186.5% |
| Agriculture, Forestry And Fishing Activities | Diesel | 393,575 | 350,128 | -11.0% | 29,343 | 24,563 | -16.3% |
| Natural Gas Fugitive Emissions | | | | - | 314 | 438 | 39.4% |
| **Total** | | **6,534,625** | **5,982,788** | **-8.4%** | **206,509** | **199,421** | **-3.4%** |
| **On-Road Transportation** | | | | | | | |
| Electric Vehicles | Electricity | - | 19,566 | - | - | 218 | - |
| Hydrogen Vehicles | Hydrogen | - | - | - | - | - | - |
| Passenger Vehicles | Gasoline + Diesel | 1,877,530 | 959,118 | -48.9% | 127,117 | 60,145 | -52.7% |
| Light Trucks, Vans, SUVs | Gasoline + Diesel | 1,549,388 | 1,681,901 | 8.6% | 106,319 | 107,018 | 0.7% |
| Heavy Duty Vehicles | Gasoline + Diesel | 564,907 | 442,895 | -21.6% | 38,090 | 27,964 | -26.6% |
| Propane Vehicles | Propane | 8,605 | 3,749 | -56.4% | 519 | 213 | -59.0% |
| Natural Gas Vehicles | Natural Gas | - | 807 | - | - | 44 | - |
| Motorcycles | Gasoline | 11,374 | 9,288 | -18.3% | 784 | 602 | -23.2% |
| **Total On-Road Transportation** | | **4,011,803** | **3,117,323** | **-22.3%** | **272,828** | **196,203** | **-28.1%** |
| **Off-Road Transportation** | | | | | | | |
| Marine, Aviation and Other Off-Road Vehicles | Gasoline + Diesel + Jet Fuel | 507,773 | 356,966 | -29.7% | 37,961 | 25,538 | -32.7% |
| **Total Off-Road Transportation** | | **507,773** | **356,966** | **-29.7%** | **37,961** | **25,538** | **-32.7%** |
| **Waste** | | | | | | | |
| Wastewater | | | | | 4,989 | 3,995 | -19.9% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| Composting | | | | | 0 | 3,923 | - |
| Solid Waste | | | | | 35,144 | 17,578 | -50.0% |
| **Total Waste** | | | | | **40,134** | **25,496** | **-36.5%** |
| **Agriculture Forestry & Other Land Use (AFOLU)** | | | | | | | |
| Land-Use: Emissions Sequestered **(Disclosure Only - Not Included In Total)** | | | | | -15,421 | -16,969 | 10.0% |
| Land-Use: Emissions Released **(Disclosure Only - Not Included In Total)** | | | | | 22,453 | 13,619 | -39.3% |
| Livestock, Aggregate Sources and Non-$CO_2$ Emission Sources on Land | | | | | 551 | 649 | 17.9% |
| **Total AFOLU** | | | | | **551** | **649** | **17.9%** |
| **Industrial Process & Product Use (IPPU)** | | | | | | | |
| Process Use Emissions | | | | | 24,438 | 38,730 | 58.5% |
| **Total IPPU** | | | | | **24,438** | **38,730** | **58.5%** |
| **TOTAL** | | **11,054,201** | **9,457,076** | **-14.4%** | **582,422** | **486,037** | **-16.5%** |

# 14 SALT SPRING ELECTORAL AREA

## 14.1 2020 Profile

| Profile | |
|---|---|
| Population | 11,697 |
| Dwellings | 5,158 |
| Registered Vehicles | 8,996 |
| Energy (Thousands of GJ) | 1,003 |
| GHG Emissions ($tCO_2e$) | 42,920 |

## 14.2 Energy & GHG Emissions

**Table 18** presents a summary comparison of Salt Spring Island Electoral Area's 2007 and 2020 energy and GHG emissions.

**Table 18. Estimated Energy and GHG Emissions By Reporting Source**

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| **Stationary Energy** | | | | | | | |
| Residential Buildings | Electricity | 360,697 | 362,362 | 0.5% | 3,577 | 4,036 | 12.8% |
| | Natural Gas | - | - | - | - | - | - |
| | Fuel Oil | 9,967 | 14,122 | 41.7% | 682 | 966 | 41.7% |
| | Propane | 9,006 | 7,569 | -16.0% | 549 | 463 | -15.7% |
| | Wood | 75,133 | 64,526 | -14.1% | 1,764 | 1,515 | -14.1% |
| | Diesel | 7,344 | 5,933 | -19.2% | 548 | 416 | -24.0% |
| Commercial & Industrial Buildings | Electricity | 91,954 | 105,860 | 15.1% | 912 | 1,179 | 29.3% |
| | Natural Gas | - | - | - | - | - | - |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| | Fuel Oil | - | - | - | - | - | - |
| | Diesel | 13,243 | 13,170 | -0.5% | 987 | 924 | -6.4% |
| Energy Industries | LFG Combustion | | | - | - | - | - |
| Agriculture, Forestry And Fishing Activities | Diesel | 35,033 | 32,736 | -6.6% | 2,612 | 2,297 | -12.1% |
| Natural Gas Fugitive Emissions | | | | - | - | - | - |
| **Total** | | **602,377** | **606,278** | **0.6%** | **11,630** | **11,796** | **1.4%** |
| **On-Road Transportation** | | | | | | | |
| Electric Vehicles | Electricity | - | 3,002 | - | - | 33 | - |
| Hydrogen Vehicles | Hydrogen | - | - | - | - | - | - |
| Passenger Vehicles | Gasoline + Diesel | 166,502 | 74,130 | -55.5% | 11,276 | 4,651 | -58.8% |
| Light Trucks, Vans, SUVs | Gasoline + Diesel | 191,257 | 217,638 | 13.8% | 13,124 | 13,852 | 5.5% |
| Heavy Duty Vehicles | Gasoline + Diesel | 50,339 | 66,371 | 31.8% | 3,348 | 4,157 | 24.2% |
| Propane Vehicles | Propane | 857 | 950 | 10.9% | 52 | 54 | 4.4% |
| Natural Gas Vehicles | Natural Gas | - | - | - | - | - | - |
| Motorcycles | Gasoline | 1,737 | 1,214 | -30.1% | 120 | 79 | -34.2% |
| **Total On-Road Transportation** | | **410,693** | **363,306** | **-11.5%** | **27,920** | **22,827** | **-18.2%** |
| **Off-Road Transportation** | | | | | | | |
| Marine, Aviation and Other Off-Road Vehicles | Gasoline + Diesel + Jet Fuel | 45,198 | 33,375 | -26.2% | 3,379 | 2,388 | -29.3% |
| **Total Off-Road Transportation** | | **45,198** | **33,375** | **-26.2%** | **3,379** | **2,388** | **-29.3%** |
| **Waste** | | | | | | | |
| Wastewater | | | | | 49 | 10 | -79.6% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| Composting | | | | | 0 | 0 | - |
| Solid Waste | | | | | 3,128 | 1,643 | -47.5% |
| **Total Waste** | | | | | **3,177** | **1,653** | **-48.0%** |
| **Agriculture Forestry & Other Land Use (AFOLU)** | | | | | | | |
| Land-Use: Emissions Sequestered **(Disclosure Only - Not Included In Total)** | | | | | -33,060 | -33,443 | 1.2% |
| Land-Use: Emissions Released **(Disclosure Only - Not Included In Total)** | | | | | 32,083 | 12,143 | -62.2% |
| Livestock, Aggregate Sources and Non-$CO_2$ Emission Sources on Land | | | | | 407 | 604 | 48.4% |
| **Total AFOLU** | | | | | **407** | **604** | **48.4%** |
| **Industrial Process & Product Use (IPPU)** | | | | | | | |
| Process Use Emissions | | | | | 2,175 | 3,652 | 67.9% |
| **Total IPPU** | | | | | **2,175** | **3,652** | **67.9%** |
| **TOTAL** | | **1,058,268** | **1,002,959** | **-5.2%** | **48,689** | **42,920** | **-11.8%** |

# 15 TOWN OF SIDNEY

## 15.1 2020 Profile

| Profile | |
|---|---|
| Population | 12,312 |
| Dwellings | 6,182 |
| Registered Vehicles | 8,066 |
| Energy (Thousands of GJ) | 1,097 |
| GHG Emissions ($tCO_2e$) | 53,276 |

## 15.2 Energy & GHG Emissions

**Table 19** presents a summary comparison of the Town Sidney's 2007 and 2020 energy and GHG emissions.

**Table 19. Estimated Energy and GHG Emissions By Reporting Source**

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| **Stationary Energy** | | | | | | | |
| Residential Buildings | Electricity | 242,453 | 222,028 | -8.4% | 2,404 | 2,473 | 2.9% |
| | Natural Gas | 70,155 | 91,578 | 30.5% | 3,498 | 4,567 | 30.5% |
| | Fuel Oil | 58,189 | 79,973 | 37.4% | 3,979 | 5,468 | 37.4% |
| | Propane | 10,069 | 8,209 | -18.5% | 614 | 502 | -18.2% |
| | Wood | 22,263 | 18,547 | -16.7% | 523 | 436 | -16.7% |
| | Diesel | 8,473 | 6,245 | -26.3% | 632 | 438 | -30.6% |
| Commercial & Industrial Buildings | Electricity | 187,401 | 168,687 | -10.0% | 1,858 | 1,879 | 1.1% |
| | Natural Gas | 80,240 | 85,014 | 5.9% | 4,001 | 4,239 | 5.9% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| | Fuel Oil | - | - | - | - | - | - |
| | Diesel | 15,280 | 13,862 | -9.3% | 1,139 | 973 | -14.6% |
| Energy Industries | LFG Combustion | | | - | - | - | - |
| Agriculture, Forestry And Fishing Activities | Diesel | 40,422 | 34,457 | -14.8% | 3,014 | 2,417 | -19.8% |
| Natural Gas Fugitive Emissions | | | | - | 47 | 67 | 40.7% |
| **Total** | | **734,947** | **728,600** | **-0.9%** | **21,710** | **23,459** | **8.1%** |
| **On-Road Transportation** | | | | | | | |
| Electric Vehicles | Electricity | - | 1,393 | - | - | 16 | - |
| Hydrogen Vehicles | Hydrogen | - | - | - | - | - | - |
| Passenger Vehicles | Gasoline + Diesel | 199,863 | 94,379 | -52.8% | 13,532 | 5,919 | -56.3% |
| Light Trucks, Vans, SUVs | Gasoline + Diesel | 162,604 | 167,907 | 3.3% | 11,158 | 10,685 | -4.2% |
| Heavy Duty Vehicles | Gasoline + Diesel | 82,565 | 68,182 | -17.4% | 5,565 | 4,293 | -22.9% |
| Propane Vehicles | Propane | 973 | 384 | -60.5% | 59 | 22 | -62.8% |
| Natural Gas Vehicles | Natural Gas | - | - | - | - | - | - |
| Motorcycles | Gasoline | 1,276 | 1,011 | -20.8% | 88 | 66 | -25.5% |
| **Total On-Road Transportation** | | **447,282** | **333,256** | **-25.5%** | **30,401** | **20,999** | **-30.9%** |
| **Off-Road Transportation** | | | | | | | |
| Marine, Aviation and Other Off-Road Vehicles | Gasoline + Diesel + Jet Fuel | 52,151 | 35,130 | -32.6% | 3,899 | 2,513 | -35.5% |
| **Total Off-Road Transportation** | | **52,151** | **35,130** | **-32.6%** | **3,899** | **2,513** | **-35.5%** |
| **Waste** | | | | | | | |
| Wastewater | | | | | 612 | 563 | -8.1% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| Composting | | | | | 0 | 170 | - |
| Solid Waste | | | | | 3,610 | 1,730 | -52.1% |
| **Total Waste** | | | | | **4,222** | **2,463** | **-41.7%** |
| **Agriculture Forestry & Other Land Use (AFOLU)** | | | | | | | |
| Land-Use: Emissions Sequestered **(Disclosure Only - Not Included In Total)** | | | | | -543 | -514 | -5.3% |
| Land-Use: Emissions Released **(Disclosure Only - Not Included In Total)** | | | | | 823 | 1,251 | 52.1% |
| Livestock, Aggregate Sources and Non-$CO_2$ Emission Sources on Land | | | | | 2 | 24 | 1373.0% |
| **Total AFOLU** | | | | | **2** | **24** | **1373.0%** |
| **Industrial Process & Product Use (IPPU)** | | | | | | | |
| Process Use Emissions | | | | | 2,510 | 3,818 | 52.1% |
| **Total IPPU** | | | | | **2,510** | **3,818** | **52.1%** |
| **TOTAL** | | **1,234,379** | **1,096,986** | **-11.1%** | **62,744** | **53,276** | **-15.1%** |

# 16 DISTRICT OF SOOKE

## 16.1 2020 Profile

| Profile | |
|---|---|
| Population | 15,083 |
| Dwellings | 5,936 |
| Registered Vehicles | 10,132 |
| Energy (Thousands of GJ) | 1,115 |
| GHG Emissions ($tCO_2e$) | 55,790 |

## 16.2 Energy & GHG Emissions

**Table 20** presents a summary comparison of the District of Sooke's 2007 and 2020 energy and GHG emissions.

**Table 20. Estimated Energy and GHG Emissions By Reporting Source**

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| **Stationary Energy** | | | | | | | |
| Residential Buildings | Electricity | 257,364 | 316,621 | 23.0% | 2,552 | 3,527 | 38.2% |
| | Natural Gas | 13,108 | 58,248 | 344.4% | 654 | 2,905 | 344.4% |
| | Fuel Oil | 56,455 | 77,589 | 37.4% | 3,860 | 5,305 | 37.4% |
| | Propane | 9,744 | 7,943 | -18.5% | 594 | 486 | -18.2% |
| | Wood | 21,667 | 18,049 | -16.7% | 509 | 424 | -16.7% |
| | Diesel | 7,633 | 7,650 | 0.2% | 569 | 537 | -5.7% |
| Commercial & Industrial Buildings | Electricity | 68,790 | 82,223 | 19.5% | 682 | 916 | 34.3% |
| | Natural Gas | 16,506 | 33,412 | 102.4% | 823 | 1,666 | 102.4% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| | Fuel Oil | - | - | - | - | - | - |
| | Diesel | 13,765 | 16,982 | 23.4% | 1,026 | 1,191 | 16.1% |
| Energy Industries | LFG Combustion | | | - | - | - | - |
| Agriculture, Forestry And Fishing Activities | Diesel | 36,415 | 42,212 | 15.9% | 2,715 | 2,961 | 9.1% |
| Natural Gas Fugitive Emissions | | | | - | 13 | 44 | 243.7% |
| **Total** | | **501,448** | **660,930** | **31.8%** | **13,997** | **19,962** | **42.6%** |
| **On-Road Transportation** | | | | | | | |
| Electric Vehicles | Electricity | - | 1,944 | - | - | 22 | - |
| Hydrogen Vehicles | Hydrogen | - | - | - | - | - | - |
| Passenger Vehicles | Gasoline + Diesel | 141,887 | 103,480 | -27.1% | 9,610 | 6,493 | -32.4% |
| Light Trucks, Vans, SUVs | Gasoline + Diesel | 187,290 | 231,487 | 23.6% | 12,850 | 14,742 | 14.7% |
| Heavy Duty Vehicles | Gasoline + Diesel | 80,537 | 71,487 | -11.2% | 5,442 | 4,497 | -17.4% |
| Propane Vehicles | Propane | 1,986 | 839 | -57.8% | 120 | 48 | -60.2% |
| Natural Gas Vehicles | Natural Gas | - | 58 | - | - | 3 | - |
| Motorcycles | Gasoline | 1,490 | 1,499 | 0.6% | 103 | 97 | -5.3% |
| **Total On-Road Transportation** | | **413,191** | **410,793** | **-0.6%** | **28,125** | **25,901** | **-7.9%** |
| **Off-Road Transportation** | | | | | | | |
| Marine, Aviation and Other Off-Road Vehicles | Gasoline + Diesel + Jet Fuel | 46,981 | 43,036 | -8.4% | 3,512 | 3,079 | -12.3% |
| **Total Off-Road Transportation** | | **46,981** | **43,036** | **-8.4%** | **3,512** | **3,079** | **-12.3%** |
| **Waste** | | | | | | | |
| Wastewater | | | | | 0 | 0 | - |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| Composting | | | | | 0 | 0 | - |
| Solid Waste | | | | | 3,252 | 2,119 | -34.8% |
| **Total Waste** | | | | | **3,252** | **2,119** | **-34.8%** |
| **Agriculture Forestry & Other Land Use (AFOLU)** | | | | | | | |
| Land-Use: Emissions Sequestered **(Disclosure Only - Not Included In Total)** | | | | | -9,952 | -11,192 | 12.5% |
| Land-Use: Emissions Released **(Disclosure Only - Not Included In Total)** | | | | | 6,213 | 5,442 | -12.4% |
| Livestock, Aggregate Sources and Non-$CO_2$ Emission Sources on Land | | | | | 47 | 149 | 212.9% |
| **Total AFOLU** | | | | | **47** | **149** | **212.9%** |
| **Industrial Process & Product Use (IPPU)** | | | | | | | |
| Process Use Emissions | | | | | 2,261 | 4,580 | 102.6% |
| **Total IPPU** | | | | | **2,261** | **4,580** | **102.6%** |
| **TOTAL** | | **961,620** | **1,114,759** | **15.9%** | **51,194** | **55,790** | **9.0%** |

# 17 CITY OF VICTORIA

## 17.1 2020 Profile

| Profile | |
|---|---|
| Population | 94,415 |
| Dwellings | 49,635 |
| Registered Vehicles | 53,483 |
| Energy (Thousands of GJ) | 8,467 |
| GHG Emissions ($tCO_2e$) | 408,761 |

## 17.2 Energy & GHG Emissions

**Table 21** presents a summary comparison of the City of Victoria's 2007 and 2020 energy and GHG emissions.

**Table 21. Estimated Energy and GHG Emissions By Reporting Source**

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| **Stationary Energy** | | | | | | | |
| Residential Buildings | Electricity | 1,235,156 | 1,186,142 | -4.0% | 12,249 | 13,212 | 7.9% |
| | Natural Gas | 952,641 | 453,369 | -52.4% | 47,506 | 22,608 | -52.4% |
| | Fuel Oil | 617,245 | 287,746 | -53.4% | 42,205 | 19,675 | -53.4% |
| | Propane | 118,617 | 96,698 | -18.5% | 7,230 | 5,913 | -18.2% |
| | Wood | 259,255 | 215,974 | -16.7% | 6,088 | 5,072 | -16.7% |
| | Diesel | 60,085 | 47,888 | -20.3% | 4,480 | 3,360 | -25.0% |
| Commercial & Industrial Buildings | Electricity | 1,983,621 | 1,648,080 | -16.9% | 19,671 | 18,358 | -6.7% |
| | Natural Gas | 1,377,709 | 1,937,984 | 40.7% | 68,703 | 96,643 | 40.7% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| | Fuel Oil | 122,702 | 122,702 | 0.0% | 8,390 | 8,390 | 0.0% |
| | Diesel | 108,350 | 106,304 | -1.9% | 8,078 | 7,458 | -7.7% |
| Energy Industries | LFG Combustion | | | - | - | - | - |
| Agriculture, Forestry And Fishing Activities | Diesel | - | - | - | - | - | - |
| Natural Gas Fugitive Emissions | | | | - | 240 | 260 | 8.3% |
| **Total** | | **6,835,381** | **6,102,886** | **-10.7%** | **224,839** | **200,949** | **-10.6%** |
| **On-Road Transportation** | | | | | | | |
| Electric Vehicles | Electricity | - | 11,335 | - | - | 126 | - |
| Hydrogen Vehicles | Hydrogen | - | - | - | - | - | - |
| Passenger Vehicles | Gasoline + Diesel | 1,250,314 | 692,954 | -44.6% | 84,656 | 43,457 | -48.7% |
| Light Trucks, Vans, SUVs | Gasoline + Diesel | 774,818 | 1,017,832 | 31.4% | 53,168 | 64,746 | 21.8% |
| Heavy Duty Vehicles | Gasoline + Diesel | 468,309 | 348,840 | -25.5% | 31,632 | 22,032 | -30.3% |
| Propane Vehicles | Propane | 5,840 | 3,944 | -32.5% | 352 | 224 | -36.5% |
| Natural Gas Vehicles | Natural Gas | - | 404 | - | - | 22 | - |
| Motorcycles | Gasoline | 8,968 | 8,555 | -4.6% | 618 | 555 | -10.2% |
| **Total On-Road Transportation** | | **2,508,250** | **2,083,864** | **-16.9%** | **170,425** | **131,161** | **-23.0%** |
| **Off-Road Transportation** | | | | | | | |
| Marine, Aviation and Other Off-Road Vehicles | Gasoline + Diesel + Jet Fuel | 509,285 | 280,736 | -38.2% | 38,153 | 20,127 | -40.5% |
| **Total Off-Road Transportation** | | **509,285** | **280,736** | **-44.9%** | **38,153** | **20,127** | **-47.3%** |
| **Waste** | | | | | | | |
| Wastewater | | | | | 7,699 | 5,400 | -29.9% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| Composting | | | | | 72 | 854 | 1080.1% |
| Solid Waste | | | | | 25,595 | 20,533 | -19.8% |
| **Total Waste** | | | | | **33,367** | **26,787** | **-19.7%** |
| **Agriculture Forestry & Other Land Use (AFOLU)** | | | | | | | |
| Land-Use: Emissions Sequestered **(Disclosure Only - Not Included In Total)** | | | | | -1,798 | -1,932 | 7.4% |
| Land-Use: Emissions Released **(Disclosure Only - Not Included In Total)** | | | | | 3,725 | 3,744 | 0.5% |
| Livestock, Aggregate Sources and Non-$CO_2$ Emission Sources on Land | | | | | 0 | 0 | - |
| **Total AFOLU** | | | | | **0** | **0** | **-** |
| **Industrial Process & Product Use (IPPU)** | | | | | | | |
| Process Use Emissions | | | | | 17,798 | 29,736 | 67.1% |
| **Total IPPU** | | | | | **17,798** | **29,736** | **67.1%** |
| **TOTAL** | | **9,852,916** | **8,467,486** | **-14.0%** | **484,582** | **408,761** | **-15.8%** |

# 18 TOWN OF VIEW ROYAL

## 18.1 2020 Profile

| Profile | |
|---|---|
| Population | 11,829 |
| Dwellings | 4,796 |
| Registered Vehicles | 10,297 |
| Energy (Thousands of GJ) | 1,081 |
| GHG Emissions ($tCO_2e$) | 54,477 |

## 18.2 Energy & GHG Emissions

**Table 22** presents a summary comparison of the Town of View Royal's 2007 and 2020 energy and GHG emissions.

**Table 22. Estimated Energy and GHG Emissions By Reporting Source**

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| **Stationary Energy** | | | | | | | |
| Residential Buildings | Electricity | 185,833 | 195,051 | 5.0% | 1,843 | 2,173 | 17.9% |
| | Natural Gas | 75,155 | 89,003 | 18.4% | 3,748 | 4,438 | 18.4% |
| | Fuel Oil | 22,724 | 31,231 | 37.4% | 1,554 | 2,135 | 37.4% |
| | Propane | 3,926 | 3,201 | -18.5% | 239 | 196 | -18.2% |
| | Wood | 8,710 | 7,256 | -16.7% | 205 | 170 | -16.7% |
| | Diesel | 6,704 | 6,000 | -10.5% | 500 | 421 | -15.8% |
| Commercial & Industrial Buildings | Electricity | 113,772 | 130,614 | 14.8% | 1,128 | 1,455 | 29.0% |
| | Natural Gas | 123,868 | 149,375 | 20.6% | 6,177 | 7,449 | 20.6% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| | Fuel Oil | - | - | - | - | - | - |
| | Diesel | 12,088 | 13,319 | 10.2% | 901 | 934 | 3.7% |
| Energy Industries | LFG Combustion | | | - | - | - | - |
| Agriculture, Forestry And Fishing Activities | Diesel | 31,979 | 33,105 | 3.5% | 2,384 | 2,322 | -2.6% |
| Natural Gas Fugitive Emissions | | | | - | 38 | 50 | 31.8% |
| **Total** | | **584,760** | **658,154** | **12.6%** | **18,717** | **21,744** | **16.2%** |
| **On-Road Transportation** | | | | | | | |
| Electric Vehicles | Electricity | - | 2,319 | - | - | 26 | - |
| Hydrogen Vehicles | Hydrogen | - | - | - | - | - | - |
| Passenger Vehicles | Gasoline + Diesel | 138,335 | 116,597 | -15.7% | 9,366 | 7,313 | -21.9% |
| Light Trucks, Vans, SUVs | Gasoline + Diesel | 135,581 | 221,254 | 63.2% | 9,303 | 14,081 | 51.3% |
| Heavy Duty Vehicles | Gasoline + Diesel | 60,935 | 47,063 | -22.8% | 4,111 | 2,950 | -28.2% |
| Propane Vehicles | Propane | 895 | 446 | -50.2% | 54 | 25 | -53.1% |
| Natural Gas Vehicles | Natural Gas | - | - | - | - | - | - |
| Motorcycles | Gasoline | 1,223 | 1,336 | 9.3% | 84 | 87 | 2.8% |
| **Total On-Road Transportation** | | **336,970** | **389,016** | **15.4%** | **22,919** | **24,481** | **6.8%** |
| **Off-Road Transportation** | | | | | | | |
| Marine, Aviation and Other Off-Road Vehicles | Gasoline + Diesel + Jet Fuel | 41,258 | 33,752 | -18.2% | 3,084 | 2,415 | -21.7% |
| **Total Off-Road Transportation** | | **41,258** | **33,752** | **-18.2%** | **3,084** | **2,415** | **-21.7%** |
| **Waste** | | | | | | | |
| Wastewater | | | | | 386 | 361 | -6.7% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| Composting | | | | | 0 | 170 | - |
| Solid Waste | | | | | 2,856 | 1,662 | -41.8% |
| **Total Waste** | | | | | **3,242** | **2,193** | **-32.4%** |
| **Agriculture Forestry & Other Land Use (AFOLU)** | | | | | | | |
| Land-Use: Emissions Sequestered **(Disclosure Only - Not Included In Total)** | | | | | -2,585 | -2,738 | 5.9% |
| Land-Use: Emissions Released **(Disclosure Only - Not Included In Total)** | | | | | 1,738 | 1,807 | 4.0% |
| Livestock, Aggregate Sources and Non-$CO_2$ Emission Sources on Land | | | | | 1 | 6 | 355.1% |
| **Total AFOLU** | | | | | **1** | **6** | **355.1%** |
| **Industrial Process & Product Use (IPPU)** | | | | | | | |
| Process Use Emissions | | | | | 1,986 | 3,638 | 83.2% |
| **Total IPPU** | | | | | **1,986** | **3,638** | **83.2%** |
| **TOTAL** | | **962,988** | **1,080,921** | **12.2%** | **49,949** | **54,477** | **9.1%** |

# 19 SOUTHERN GULF ISLANDS ELECTORAL AREA

## 19.1 2020 Profile

The Southern Gulf Islands Electoral Area consists of: Galiano, Mayne, North Pender, Saturna and South Pender.

| Profile | |
|---|---|
| Population | 4,963 |
| Dwellings | 2,432 |
| Registered Vehicles | 4,300 |
| Energy (Thousands of GJ) | 704 |
| GHG Emissions ($tCO_2e$) | 27,730 |

## 19.2 Energy & GHG Emissions

**Table 23** presents a summary comparison of the Southern Gulf Islands Electoral Area 2007 and 2020 energy and GHG emissions.

**Table 23. Estimated Energy and GHG Emissions By Reporting Source**

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| **Stationary Energy** | | | | | | | |
| Residential Buildings | Electricity | 205,339 | 201,183 | -2.0% | 2,036 | 2,241 | 10.1% |
| | Natural Gas | - | - | - | - | - | - |
| | Fuel Oil | 27,326 | 38,718 | 41.7% | 1,868 | 2,647 | 41.7% |
| | Propane | 24,684 | 20,746 | -16.0% | 1,505 | 1,269 | -15.7% |
| | Wood | 206,032 | 176,945 | -14.1% | 4,838 | 4,155 | -14.1% |
| | Diesel | 3,658 | 2,517 | -31.2% | 273 | 177 | -35.2% |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| Commercial & Industrial Buildings | Electricity | 45,106 | 45,491 | 0.9% | 447 | 507 | 13.3% |
| | Natural Gas | - | - | - | - | - | - |
| | Fuel Oil | - | - | - | - | - | - |
| | Diesel | 6,596 | 5,588 | -15.3% | 492 | 392 | -20.3% |
| Energy Industries | LFG Combustion | | | - | - | - | - |
| Agriculture, Forestry And Fishing Activities | Diesel | 17,449 | 13,889 | -20.4% | 1,301 | 974 | -25.1% |
| Natural Gas Fugitive Emissions | | | | - | - | - | - |
| **Total** | | **536,190** | **505,076** | **-5.8%** | **12,760** | **12,362** | **-3.1%** |
| **On-Road Transportation** | | | | | | | |
| Electric Vehicles | Electricity | - | 922 | - | - | 10 | - |
| Hydrogen Vehicles | Hydrogen | - | - | - | - | - | - |
| Passenger Vehicles | Gasoline + Diesel | 115,551 | 33,438 | -71.1% | 7,821 | 2,098 | -73.2% |
| Light Trucks, Vans, SUVs | Gasoline + Diesel | 63,232 | 108,354 | 71.4% | 4,339 | 6,898 | 59.0% |
| Heavy Duty Vehicles | Gasoline + Diesel | 16,337 | 41,345 | 153.1% | 1,084 | 2,605 | 140.3% |
| Propane Vehicles | Propane | - | 441 | - | - | 25 | - |
| Natural Gas Vehicles | Natural Gas | - | 58 | - | - | 3 | - |
| Motorcycles | Gasoline | 916 | 495 | -45.9% | 63 | 32 | -49.1% |
| **Total On-Road Transportation** | | **196,036** | **185,054** | **-5.6%** | **13,307** | **11,672** | **-12.3%** |
| **Off-Road Transportation** | | | | | | | |
| Marine, Aviation and Other Off-Road Vehicles | Gasoline + Diesel + Jet Fuel | 22,512 | 14,160 | -37.1% | 1,683 | 1,013 | -39.8% |
| **Total Off-Road Transportation** | | **22,512** | **14,160** | **-37.1%** | **1,683** | **1,013** | **-39.8%** |
| **Waste** | | | | | | | |

| Source | Type | 2007 Energy (GJ) | 2020 Energy (GJ) | Change (%) | 2007 GHG Emissions ($tCO_2e$) | 2020 GHG Emissions ($tCO_2e$) | Change (%) |
|---|---|---|---|---|---|---|---|
| Wastewater | | | | | 24 | 5 | -78.7% |
| Composting | | | | | 0 | 0 | - |
| Solid Waste | | | | | 1,558 | 697 | -55.2% |
| **Total Waste** | | | | | **1,582** | **702** | **-55.6%** |
| **Agriculture Forestry & Other Land Use (AFOLU)** | | | | | | | |
| Land-Use: Emissions Sequestered **(Disclosure Only - Not Included In Total)** | | | | | -33,172 | -33,526 | 1.1% |
| Land-Use: Emissions Released **(Disclosure Only - Not Included In Total)** | | | | | 24,093 | 24,143 | 0.2% |
| Livestock, Aggregate Sources and Non-$CO_2$ Emission Sources on Land | | | | | 387 | 400 | 3.5% |
| **Total AFOLU** | | | | | **387** | **400** | **3.5%** |
| **Industrial Process & Product Use (IPPU)** | | | | | | | |
| Process Use Emissions | | | | | 1,083 | 1,581 | 45.9% |
| **Total IPPU** | | | | | **1,083** | **1,581** | **45.9%** |
| **TOTAL** | | **754,738** | **704,290** | **-6.7%** | **30,803** | **27,730** | **-10.0%** |