Farewell Harbour Lodge

Greenhouse Gas Emissions Report for the 2020 Fiscal Year

June 1, 2019 to May 31, 2020

climatesmart

Contents

Key terms

For further terms, see Climate Smart's online glossary.

Baseline GHG Emissions Inventory: A comprehensive, quantified list of an organization's greenhouse gas emissions and sources for the initial reporting year (base year). The baseline GHG inventory is the level of greenhouse gas emissions against which future GHG inventories are compared.

Biologically sequestered carbon: Long-term carbon stored in biomass, such as forests, soils and peatland. Carbon is "locked" into organic matter through biological processes. This carbon can be released through e.g. burning of biomass as fuel or change in land use.

Carbon Dioxide Equivalent (CO_2e): The universal unit for comparing the emissions from various greenhouse gases. The carbon dioxide equivalent for a gas is derived by multiplying the mass of the gas by the associated global warming potential (GWP). For example, the GWP for methane is 21. This means that emissions of one metric tonne of methane are equivalent to the emissions of 21 metric tonnes of carbon dioxide.

Carbon Offset: A project or activity that results in a given amount of greenhouse gases being avoided or reduced in one place, that is used to 'balance out' another's total GHG emissions. Emission reductions that are real, additional (beyond business as usual), measurable, permanent, and verified can generate offset credits. Credits are tradable certificates.

Emission Factor: A factor that converts activity data to GHG emission values, e.g. lbs of carbon dioxide emitted per barrel of fossil fuel consumed.

Renewable energy certificates (RECs): RECs are tradable energy certificates representing proof that 1 megawatt-hour (MWh) of electricity was generated from an eligible renewable energy resource (e.g. solar or wind) and was fed into the electricity grid.

Climate Smart at a glance

Climate Smart is an award-winning certified B Corp that has developed a practical and solutions-based program for SMEs to **profitably track and reduce GHG emissions**. Climate Smart emphasizes the business case for GHG reduction: **operational efficiencies**, **cost savings**, and **competitive advantage**.

Using an SME tailored approach, Climate Smart provides **innovative tools and programming** for our "host partners" on the front lines—cities, ports, airports, chambers, and financial institutions—to disrupt old economic trajectories and invest in more efficient technologies to deliver cleaner products and services.

Since 2007, Climate Smart has worked with 40+ host partners to engage close to 1000 businesses to prepare for and participate in the low-carbon economy. Case studies from a sampling of 78 Climate Smart businesses show a total **annual cost savings of $2.6 million**.

Climate Smart also links SMEs to global impacts through harnessing the power of SME derived data to inform estimates of emissions from SMEs at different geographical scales, through our Business Energy and Emissions Profiles (BEEPs). Climate Smart was awarded the Grand Prize in the 2016 MIT Climate CoLab contest and was judges' choice in 2018 for our BEEPs. We have produced BEEPs for cities across Canada and the US. Our goal is to produce 100 BEEPs across North America.

950+

Climate Smart certified businesses to date (trained or in training)

5,148,000+

Total emissions measured by Climate Smart to date, in tonnes (t) CO_2e

21%

Average reduction if businesses see a reduction between two years

$397

Projected cost savings to a business, per tonne CO_2e reduced

Farewell Harbour Lodge's 2020 fiscal year carbon footprint

This report details the greenhouse gas emissions footprint for Farewell Harbour Lodge during the 2020 fiscal year, including the breakdown of emissions by source activity and Farewell Harbour Lodge's plan to reduce their emissions going forwards. This report and inventory were compiled in compliance with the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, Revised Edition.

Farewell Harbour Lodge are working to reduce their GHG emissions from:

Waste

Electricity / Heating

&

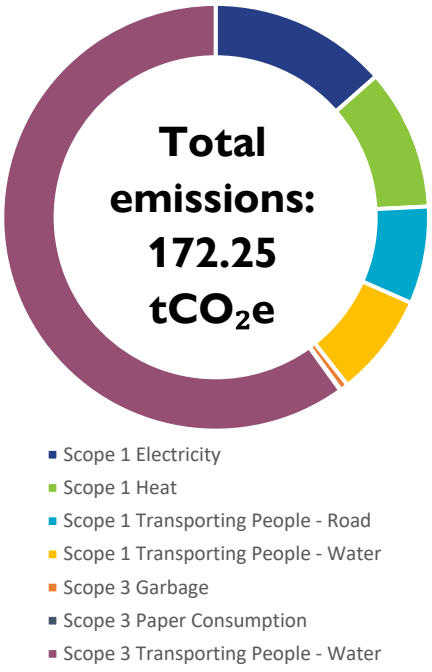
Fuel consumed by boats

Farewell Harbour Lodge's GHG emissions in their 2019 baseline year are equivalent to 678,000 km driven by a passenger car[1].

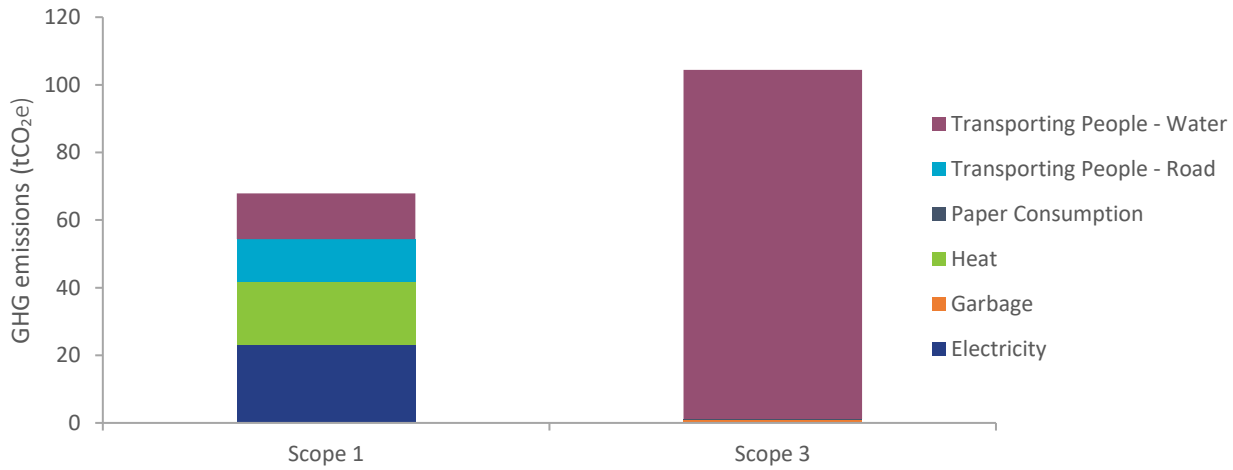
678,000 km

[1]Source: EPA Greenhouse Gas Equivalencies Calculator

Total emissions for the 2020 fiscal year by activity



Total emissions by scope for the 2020 fiscal year



Analysis

Farewell Harbour Lodge measured its first greenhouse gas inventory with Climate Smart for the 2020 fiscal year (June 1, 2019 to May 31, 2020) and recorded emissions of 172.25 tonnes of carbon dioxide equivalent (tCO_2e). Overall, Farewell Harbour Lodge's largest emissions sources were **transporting people in leased boats** (60%) and **diesel generators for electricity** (14%). Farewell Harbour Lodge is Climate Smart certified for 2021.

The following sections present the breakdown of Farewell Harbour Lodge's emissions for their 2020 fiscal year inventory by scope, as well as details of any emissions of CO_2 from combustion of biologically sequestered carbon and purchased offsets and renewable energy certificates (RECs).

Scope 1

Scope 1 emissions totalled 67.87 tCO_2e in Farewell Harbour Lodge's 2020 fiscal year:

Activity	Baseline 2019 (tCO2e)	% of emissions	Justifications & Additional Notes
Scope 1			
Electricity	23.29	14%	Diesel consumed for electricity generators
Heat	18.39	11%	Propane used for heating the lodges and communal areas
Transporting People - Road	12.72	7%	Gasoline consumed by company owned vehicles, used to collect guests and travel around the site
Transporting People - Water	13.48	8%	Fuel consumed by company owned boats used to access the site and guest services
Grand Total	67.87	39%	

Scope 2

There are no Scope 2 emissions activitites relevant to Farewell Harbour Lodge's operations.

Scope 3

Scope 3 emissions totalled 104.38 tCO_2e in Farewell Harbour Lodge's 2020 fiscal year:

Activity	Baseline 2019 (tCO2e)	% of emissions	Justifications & Additional Notes
Scope 3			
Garbage	1.06	1%	Emissions from waste incinerated onsite
Paper Consumption	0.10	0%	Very small quantity of paper used for printing menus, signage and office admin
Transporting People - Water	103.23	60%	Fuel consumed by leased boats, used to access the site and for guest services. These are used seasonally
Grand Total	104.38	61%	

Release of sequestered carbon

Direct CO_2 emissions arising from the combustion of biologically sequestered carbon, such as from burning biomass or biofuels, are reported seperately from the scopes. For Farewell Harbour Lodge's 2020 fiscal year inventory, there was no reported release of sequestered carbon.

Offsets & renewable energy certificates

Farewell Harbour Lodge plan to purchase offsets to cover their fiscal 2020 inventory. This report will be updated to reflect this purchase once it has been finalized.

Farewell Harbour Lodge did not purchase renewable energy certificates (RECs) in 2020 fiscal year.

Farewell Harbour Lodge's emissions reduction plan

Based on their 2020 fiscal year inventory, Farewell Harbour Lodge will work to minimize their emissions by focusing on strategies aimed at heating, fuel consumption by vehicles and boats, and waste. Farewell Harbour Lodge's current reduction plan is shown below.

Category	Strategy	Considering	Planned	Implemented
Electricity	Make use of natural lighting as much as possible			May 2016
	Use standby settings on electronics			May 2016
	Set computers to power saving mode			May 2016
	Put up signage to help people remember to turn off lights and equipment			May 2016
	We have a battery inventor that is charged by our generator twice a day, meaning the generator is only on for a few hours a days rather than 24 hours a day			May 2017
	Implement a policy that all office-based equipment and lighting is turned off when not in use			May 2016
	Implement a policy that all non office-based equipment is turned off when not in use			May 2016
	Replace incandescent lightbulbs with light-emitting diodes			May 2017
	Replace fluorescent tube lighting with LED tubes			May 2017
	Replace desktop computers with laptops at their end of life			May 2016
Heat	Each room has their own propane stove which is controlled by a thermostat			2017
	Check settings on programmable thermostats (if installed) so that heat is turned down in the evenings and on weekends			May 2016
	Install programmable thermostats			May 2016
	Insulate hot water tanks		2022	
	Assess condition of weather stripping and install new as needed			2016
	Substitute electric heat in the place of natural gas in cases where temperature throughout your space is uneven			2016
	Install energy efficient windows			2016
	Install high-efficiency hot water tanks			
	Install solar hot water systems			
Transportation	Lease boats for the duration of the season			2016
	Limit transfers to one way each day – no multiple journeys			2017
	Get boats serviced every 1,000 hours to ensure they are operating efficiently			2017
	Turn off boats when not travelling to reduce idling			2016
	Travel at optimum speed for fuel consumption			2016
	Source from local / regional suppliers whenever possible			
Paper	Purchase paper with recycled content			2016
	Reduce paper consumption during meetings			2016
	Re-use paper			2016
	Set computer defaults to double-sided printing			2016
	Switch from paper to electronic invoicing, where possible			2017
Waste	Participate in a battery recycling program			2016

Category	Strategy	Considering	Planned	Implemented
	Increase waste diversion from landfill through improved signage and other employee engagement activities			2016
	Expand recycling program to include metals			2016
	All waste is incinerated on site other than glass and metal which is recycled			2016
Water	Fix leaking taps			2016
	We have a deep well that services our entire property, it does not need to be treated and we get it tested every fortnight			2017
Employee engagement	Communicate to staff why your company is getting Climate Smart certified and how they can get involved		2021	
	Solicit ideas for greening operations from staff		2021	
	Develop and include sustainability policy in operations and/or employee manual			2017
	Purchase carbon offsets		2021	

Methodology

As a Climate Smart certified business, Farewell Harbour Lodge conducted its GHG emissions inventory according to the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, Revised Edition. The GHG Protocol is an internationally recognized standard published by the World Resources Institute and the World Business Council on Sustainable Development.

Organizational Boundaries

Farewell Harbour Lodge used the operational control approach to determine its organizational boundary and included in its inventory all operations over which it has operational control.

Inventory Boundaries

The GHG Protocol requires the inclusion of Scope 1 and 2 emissions, and suggests including Scope 3 emissions from activities relevant to an organization's business and goals, and for which reliable data can be obtained. Farewell Harbour Lodge included emissions from the following activities under Scopes 1 and 3:

- Scope 1: includes direct GHG emissions from sources that are owned or controlled by the reporting company or organization
    - fuel consumed by company owned boats and vehicles
    - diesel consumed by electric generators
    - propane consumed for heating
- Scope 3: includes indirect GHG emissions that are consequences of the reporting company's operations but occur at sources owned by another company
    - fuel consumed by leased boats;
    - garbage; and
    - paper consumption.

Scope 3 emissions from the delivery of goods were excluded from the inventory due to challenges in obtaining accurate data. This will be investigated further in future inventories.

Emission factors

This inventory was conducted using the emissions factors from the Climate Smart web-based greenhouse gas management tool. The Climate Smart GHG management tool was designed for adherence to the GHG Protocol. Climate Smart's emission factors come from a variety of sources, such as Environment Canada, the GHG Protocol Initiative, the US Environmental Protection Agency and the Intergovernmental Panel on Climate Change. Climate Smart reviews its emission factors annually to update them based on refined industry methodology and changing electricity grids.

Climate Smart also acknowledges that complete adherence to the Protocol requires the six major greenhouse gases to be accounted for separately, and is working towards adding this feature at a future date. Further details on Climate Smart's emission factors, their sources, and methodology for updating them are available upon request to info@climatesmartbusiness.com.

Sources of data included

Farewell Harbour Lodge used the following sources of data to estimate their greenhouse gas emissions for the 2020 fiscal year:

Activity	Data source
Electricity > Generated	The total litres of fuel used for the generator were entered.
Heat > Generated	The total giga-joules of natural gas used were entered based on utility bills.
Transporting People > Vehicles you own > Road	The total litres of fuel used were entered.
Transporting People > Vehicles you own > Water	The total litres of fuel used were entered.
Transporting People > Vehicles owned by others > Water	The number of BC Ferry trips was entered for each route.
Garbage	The total estimated weight of garbage was entered into the Climate Smart tool.
Paper Consumption	The paper type, paper bond weight, number of reams used and post-consumer recycled content were entered. The paperweight and paper type were entered into the paper calculator (http://papercalculator.org) to calculate emissions.

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