

# Vancouver Film Studios

Greenhouse Gas Emissions Report for the 2022 Calendar Year

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January 1, 2022 to December 31, 2022

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### BMO Radicle's Climate Smart program at a glance

**900+**

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

**11,689,000+**

Total emissions measured by Climate Smart to date, in tCO<sub>2</sub>e

Climate Smart Certification is an award-winning training program that helps small and medium businesses in every industry create greenhouse gas (GHG) inventories, then devise emissions reduction plans to take action and make change.

## Key Terms

**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 (tCO<sub>2</sub>e):** 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.

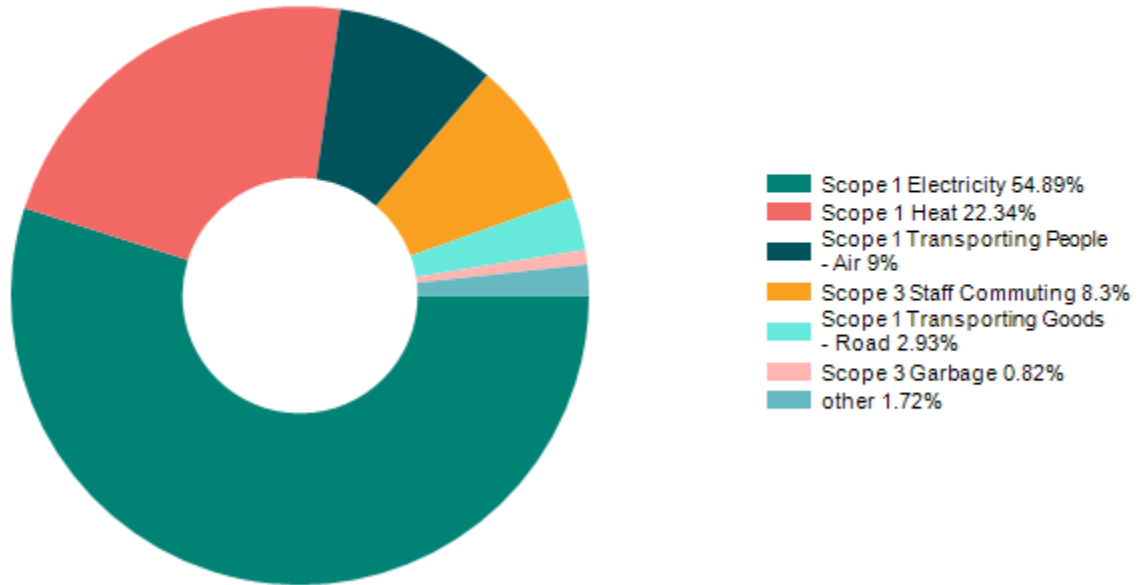
**Renewable energy certificates (RECs):** RECs are tradable energy certificates representing proof that 1 megawatt-hour (MWh) of electricity was generated from an eligible renewable energy resource (e.g., solar or wind) and was fed into the electricity grid.

## Vancouver Film Studios' 2022 Calendar Year Carbon Footprint

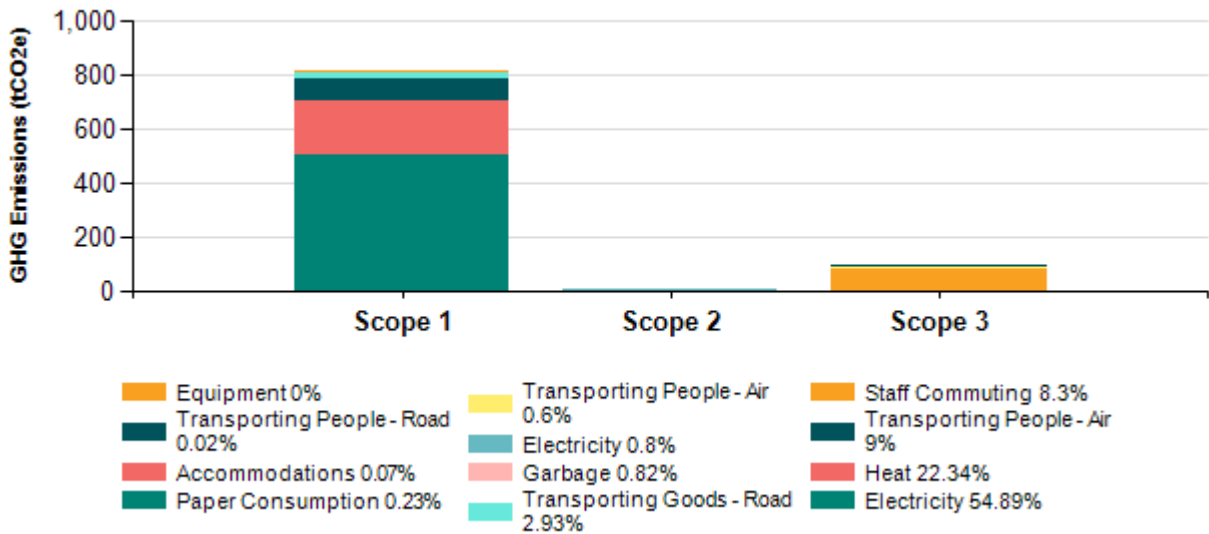
This report details the greenhouse gas emissions footprint for Vancouver Film Studios ("VFS") during the 2022 Calendar Year, including the breakdown of emissions by source activity and VFS' plan to reduce their emissions going forwards. This report and inventory were compiled in compliance with the [Greenhouse Gas Protocol Corporate Accounting and Reporting Standard](#), Revised Edition.

### Total emissions for the 2022 calendar year

**Total emissions: 915.65 tCO2e**



### Total Emissions by Scope



## Analysis

Vancouver Film Studios measured its 2nd greenhouse gas inventory with Climate Smart for the 2022 calendar year (Jan 01, 2022 to Dec 31, 2022) and recorded emissions of 413.07 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e). Overall VFS's largest emissions sources were **electricity** (56%) **and heat** (22%). VFS is Climate Smart Certified for 2022.

The following sections present the breakdown of VFS' emissions for their 2022 calendar year by scope, as well as details of any emissions of tCO<sub>2</sub> from combustion of biologically sequestered carbon and purchased offsets and renewable energy certificates (RECs).

### Scope 1

Scope 1 emissions totaled 313.89 tCO<sub>2</sub>e in VFS' 2022 calendar year

Activity Type	2022 (tCO <sub>2</sub> e)	% of Emissions	Justifications & Additional Notes
<b>Scope 1</b>			
Electricity	502.58	55%	No justifications/notes to add.
Equipment	0.02	0%	No justifications/notes to add.
Heat	204.60	22%	No justifications/notes to add.
Transporting Goods - Road	26.84	3%	No justifications/notes to add.
Transporting People - Air	82.43	9%	No justifications/notes to add.
<b>Grand Total</b>	<b>816.47</b>	<b>89%</b>	

### Scope 2 - Location Based Emissions

Scope 2 emissions totaled 7.34 tCO<sub>2</sub>e in VFS' 2022 calendar year

Activity Type	2022 (tCO <sub>2</sub> e)	% of Emissions	Justifications & Additional Notes
<b>Scope 2</b>			
Electricity	7.34	1%	VFS electricity consumption
<b>Grand Total</b>	<b>7.34</b>	<b>1%</b>	

### Scope 2 - Market-Based Emission Factors

The 2015 [GHG Protocol Scope 2 guidance](#) requires companies to report their Scope 2 emissions in two ways: **location-based** (reflecting grid emission factors), and **market-based** (using supplier specific emissions factors and/or those from contractual instruments such as renewable energy certificates - RECs). Note that location-based values are shown on the emissions summary charts presented in this report.

Province/State	Electricity Provider	kWh	Provincial/State Emissions (tCO <sub>2</sub> e)	Utility Supplier Emissions (tCO <sub>2</sub> e)
BC	BC Hydro	574,688.00	7.34	6.13
<b>Grand Total</b>		<b>574,688.00</b>	<b>7.34</b>	<b>6.13</b>

### Scope 3

Scope 3 emissions totaled 91.84 tCO<sub>2</sub>e in VFS' 2022 calendar year

Activity Type	2022 (tCO <sub>2</sub> e)	% of Emissions	Justifications & Additional Notes
<b>Scope 3</b>			

Accommodations	0.60	0%	Business travel accommodations
Garbage	7.50	1%	VFS waste production
Paper Consumption	2.14	0%	Office paper from Mills
Staff Commuting	75.96	8%	Data collected and analyzed by VFS survey
Transporting People - Air	5.46	1%	Helicopter and commercial airline use for business travel
Transporting People - Road	0.18	0%	Emissions from Ubers
<b>Grand Total</b>	<b>91.84</b>	<b>10%</b>	

### Release of Sequestered Carbon

Direct tCO<sub>2</sub> emissions arising from the combustion of biologically sequestered carbon, such as from burning biomass or biofuels, are reported separately from the scopes. For VFS' 2022 calendar year inventory, there was no reported release of sequestered carbon.

### Offsets

VFS purchased 916 tCO<sub>2</sub>e of offsets for the 2022 calendar year. The resulting emissions for the 2022 calendar year totaled -916 tCO<sub>2</sub>e.

Inventory Name	Activity Type	tCO <sub>2</sub>	Verified/Certified By	Notes
2022	Offsets	-916.00	BC Offset Registry	The Great Bear (Haida Gwaii) Forest Carbon Project. (Project ID BEAR)

### VFS' 2022 Emissions Activity by Location

Location Name	Scope	Activity Type	tCO <sub>2</sub> e	% of Total Inventory
Vancouver Film Studios	Scope 1	Equipment	0.02	0.00%
		Heat	204.60	49.53%
		Transporting Goods - Road	26.84	6.50%
		Transporting People - Air	82.43	19.96%
	Scope 2	Electricity	7.34	1.78%
	Scope 3	Accommodations	0.60	0.14%
		Garbage	7.50	1.82%
		Paper Consumption	2.14	0.52%
		Staff Commuting	75.96	18.39%
		Transporting People - Air	5.46	1.32%
Transporting People - Road		0.18	0.04%	
<b>Grand Total</b>			<b>413.07</b>	

## Vancouver Film Studios' Emission Reduction Plan

See a summary of VFS' reduction plan below. For additional information such as a detailed description or estimated implementation and completion dates, please see the Climate Smart software.

Plan Name: 2023 - VFS - 5 Year Plan			
	Strategy Name	Estimated Impact	Targeted Activity Type(s)
Planned	Essential Travel Policy	Medium	Transport People
Planned	Sustainable Travel Policy/Procedure	Low	Transport People
Implemented	Employee Awareness	Low	N/A
Implemented	Internal Communications on GHG Reductions	Low	N/A
Implemented	Low Carbon Air Travel	Medium	Transport People
Implemented	Supplier Packaging	Low	Other
Considering	Commuting Incentives	Low	Transport People
Considering	Employee Cycling Incentive	Medium	Transport People
Considering	Lifestyle Spending Account(s)	Low	Transport People
Considering	Low Carbon Transportation Education Program	Low	Transport People
Considering	Transit Passes	Low	Transport People

### Methodology

As a Climate Smart certified business, VFS 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

VFS used the operational control approach to determine its organizational boundary and included in its inventory all operations and facilities 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. VFS included emissions from the following activities under Scopes 1, 2 and 3:

**Scope 1:** includes direct GHG emissions from sources that are owned or controlled by the reporting company or organization

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Equipment > Equipment owned by others > Light

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Heat > Generated

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Transporting Goods > Vehicles you own > Road

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Transporting People > Vehicles you own > Air

**Scope 2:** includes indirect GHG emissions from purchased electricity and purchased heat

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Electricity > Purchased

**Scope 3:** includes indirect GHG emissions that are consequences of the reporting company’s operations but occur at sources owned by another company

Accommodations
Garbage
Paper Consumption
Staff Commuting
Transporting People > Vehicles owned by others > Air
Transporting People > Vehicles owned by others > Road

The following activities were excluded from the inventory for the following reasons:

Excluded Activity	Reason for Exclusion
Heat, electricity, and waste produced from leased assets	The heat, electricity, and waste emissions from leased assets were determined to be out of VFS’ operational control. It was also assumed that that the renters are capturing these emissions in their own inventories; therefore, these emissions were excluded to avoid double counting.
Diesel operated generators	The usage of rented diesel operated generators was determined to be out of VFS’ operational control. It was also assumed that that the renters are capturing these emissions in their own inventories; therefore, these emissions were excluded to avoid double counting.
Third-party shipping	Minimal (< 5% of inventory emissions). Additionally, where possible VFS uses carbon neutral third-party shipping providers such as Novex.

### 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 seven 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](mailto:info@climatesmartbusiness.com).

### Sources of Data Included

VFS used the following sources of data to estimate their greenhouse gas emissions for the 2022 calendar year.

Activity	Data Source
Equipment > Equipment owned by others > Light	The total litres of fuel used by equipment were entered.
Heat > Generated	The total giga-joules of natural gas used were entered based on utility bills.
Transporting Goods > Vehicles you own > Road	The total litres of fuel used were entered.
Transporting People > Vehicles you own > Air	The total litres of fuel used were entered.
Electricity > Purchased	The total kilowatt-hours of electricity used, based on utility bills, were entered into the Climate Smart software tool.

Accommodations	The total number of nights stayed in hotels.
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 ( <a href="http://papercalculator.org">http://papercalculator.org</a> ) to calculate emissions.
Staff Commuting	The distance commuted by each mode of transport was entered based on staff commuting survey.
Transporting People > Vehicles owned by others > Air	The total kilometers travelled were entered by type of flight (short-, medium-, or long-haul).
Transporting People > Vehicles owned by others > Road	The total kilometers travelled were entered.

## Recalculation

Climate Smart recommends a recalculation of baseline emissions if a change occurs that would equate to a change equal to or greater than five percent of company’s total annual emissions. Situations triggering recalculation include structural changes (e.g., the acquisition or divestment of business units); changes in calculation methodology or improvements in accuracy of emission factors/activity data; or discovery of significant or cumulative errors.

The baseline was reset to VFS' 2022 calendar year's inventory from the previous 2019 baseline year. The baseline was reset due to increased accuracy in calculation methodologies.



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