

● ANIMATION CALCULATOR · VERSION 1.0

User Guide

A practical guide for completing the Animation Calculator and reviewing greenhouse gas emissions results

FOR

Animation studios and productions in Canada

COVERAGE

Scope 1, Scope 2, and selected upstream Scope 3 categories

COMPANION TO

Animation Calculator Methodology, v1.0

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This User Guide explains how to complete the Animation Calculator and interpret its results. The calculator is intended to help animation studios and productions in Canada understand and estimate their greenhouse gas emissions. Users should complete the calculator using the best available data, document assumptions and exclusions, and review all outputs for completeness before using the results for reporting or decision-making.

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SECTION ONE

Purpose of the Calculator

The Animation Calculator helps animation studios and productions estimate greenhouse gas emissions associated with their operations. It is designed for use in the Canadian animation industry and supports reporting across Scope 1, Scope 2, and selected upstream Scope 3 categories.

The calculator is intended to provide a practical and consistent way to estimate emissions using operational data that productions and studios are likely to have available.

SCOPE	WHAT IT COVERS
Scope 1	Direct emissions from sources owned or controlled by the production or studio, such as natural gas, company vehicles, or generators.
Scope 2	Indirect emissions from purchased electricity, heating, cooling, or steam.
Scope 3	Selected upstream emissions, including purchased goods and services, capital goods, freight, waste, business travel, employee commuting, and related fuel- and energy-related activities.

SECTION TWO

Before You Begin

Before entering data, review the user guide and decide how your organization will define its reporting boundary and reporting period.

Confirm your reporting level

REPORTING LEVEL	DESCRIPTION
Studio-level footprint	Covers emissions from the studio’s operations over a defined operational year.
Production-level footprint	Covers emissions associated with a specific animation production, season, or project lifecycle.

Set your organizational boundary

The methodology follows an operational control approach. Emissions sources are included where the reporting entity has operational control over activities or where emissions are generated through activities required to deliver animation production services.

QUESTION	TREATMENT
Does the production or studio own or control the emissions source?	Include it in Scope 1 or Scope 2, depending on the source.
Is the activity required for production but not directly controlled by the reporting entity?	Include it in Scope 3 where relevant.
Is the asset or activity owned by a parent company or another entity and not controlled by the production?	Exclude it from the production-level footprint and document the reason or use FTE based allocation defined below.

Note: where an asset or activity is shared across multiple productions or with the broader studio, an allocation approach may be a better fit than exclusion — see “Define the reporting period” below.

Define the reporting period

The reporting period should match either the studio’s operational year or the lifecycle, season, or reporting period of a specific animation production. If only part of a studio’s emissions relates to a specific production, use a reasonable allocation approach and document the assumption. The

methodology supports a full-time-equivalent (FTE) or time-based allocation approach for this: the share of studio personnel, labour hours, or production hours attributable to the production is used to estimate its proportional share of studio-wide emissions. Use this allocation approach instead of, not alongside, direct assignment or exclusion for the same category — applying both to the same source will double count or miscount emissions.

SECTION THREE

Data Quality Expectations

The calculator is designed to work with the best available data. Use measured or source-specific data where possible. If that is not available, use estimates and document the assumptions and data sources used.

TIER	DATA TYPE	EXAMPLES
Tier 1	Supplier-specific or measured activity data	Utility bills, direct supplier emissions data, measured fuel use, meter readings.
Tier 2	Distance-based or weight-based estimates	Travel distances, freight distances, estimated waste weights.
Tier 3	Spend-based estimates	CAD spend where physical activity data is unavailable.

SECTION FOUR

Understanding the Calculator Layout

The calculator is organized into tabs. Each tab corresponds to a specific emissions source or reporting category. Users should only enter data in cells intended for user input and should not overwrite formulas.

Cell colour legend

CELL TYPE	USER ACTION
Data entry required	Enter the requested information.
No data entry required	Do not enter data; the cell is not needed based on your selections.
Automatic formula	Do not edit. The calculator uses this cell to perform calculations.
Automatic tCO2e formula	Do not edit. This cell calculates emissions in tonnes of carbon dioxide equivalent.

General workflow

- 01 Read this User Guide before entering data.
- 02 Set the organizational boundary for the reporting entity.
- 03 Confirm which emissions sources apply to your production or studio.
- 04 Gather activity data such as invoices, fuel quantities, travel records, waste estimates, and spend data.
- 05 Complete each relevant tab using the instructions below.
- 06 Review calculated emissions in each tab and in the summary tabs.
- 07 Document assumptions, exclusions, and estimates where applicable.
- 08 Review the Summary Total Footprint tab before finalizing results.

SECTION FIVE

Scope 1: Direct Emissions

Scope 1 includes direct greenhouse gas emissions from sources owned or controlled by the production or studio. Typical animation-related Scope 1 sources include natural gas used for office or studio heating, fuel used in company-owned or leased vehicles, and fuel used in on-site generators for studio-level footprints.

Tab 1.1: NG – Office Heating

- Select the province where the natural gas was consumed, such as the location of the office or facility that used natural gas.
- Select whether the volume of natural gas consumed is reported in gigajoules (GJ) or cubic metres (m³).
- Enter the amount of natural gas consumed using data from utility bills or meter records where available.

Other Scope 1 fuel tabs

Use the relevant Scope 1 fuel tabs for sources such as company-owned or leased vehicles, diesel or gasoline use, generators, and other controlled combustion sources. For each fuel source, enter the quantity of fuel consumed using the unit requested in the calculator.

SECTION SIX

Scope 2: Purchased Energy

Scope 2 includes indirect emissions from purchased energy, such as electricity used by offices, studios, or facilities.

Electricity

- Select the province where the electricity was consumed.
- Enter the electricity consumption amount using the unit requested in the calculator.

- Use utility bills, landlord-provided data, or metered electricity data where possible.
- If electricity is included in rent or shared with other tenants, estimate the production or studio share using a reasonable method such as floor area, headcount, or time used. Document the method.
- If your studio uses a supplier-specific electricity emission factor (for example, a green power contract) or renewable energy certificates (RECs), select “Yes” to the relevant question near the top of the tab, in addition to entering your location-based electricity consumption.
- For a supplier-specific factor, select the applicable province and enter the emission factor provided by your electricity supplier. For RECs, select the applicable province and enter the amount of electricity (kWh) covered by your certificates.

SECTION SEVEN

Scope 3: Upstream Emissions

Scope 3 covers selected upstream emissions that occur because of the production or studio’s activities but are not directly owned or controlled by the reporting entity.

CATEGORY	EMISSIONS SOURCE
3.1	Purchased goods and services
3.2	Capital goods
3.3	Fuel- and energy-related activities
3.4	Freight
3.5	Waste generated in operations
3.6	Business travel
3.7	Employee commuting

Downstream Scope 3 categories are excluded because animation productions are service-based operations and those categories are generally not applicable or meaningful at the production or studio level.

Tab-by-Tab Instructions for Scope 3

Tab 3.1(a): Purchased Goods

Use this Tab when goods are accounted for as expenses during the reporting period (rather than capital spending; if capital spending, use Tab 3.2).

Note that only select categories of goods are included, and may not represent a full/complete dataset for Scope 3, Category 1.

- Enter the weight or CAD spent (as applicable to the goods category) in column C.
- If Yes for supplier specific emission factors: fill in Type of Good and Amount purchased in (Columns B & C) and enter the applicable supplier specific emission factor (Cells in column), per data from your supplier.

Tab 3.1(b): Services

Use this tab for purchased services. Enter the CAD spent in column C for each applicable service category using invoices, accounting records, or procurement reports where available.

Tab 3.2: Capital Goods

Use this tab when goods are accounted for as capital goods purchases during the reporting period rather than expensed goods. Do not enter the same purchase in both Tab 3.1 and Tab 3.2.

- Identify capital goods purchased during the reporting period.
- Match each item to the closest applicable category.
- Enter the required weight or CAD spend in column C, depending on the goods category.
- Add a note if a significant capital good is not represented by the available categories.

Tab 3.3: Upstream Fuel

This tab calculates upstream emissions associated with electricity and fuel already entered elsewhere in the calculator.

- Select the province where electricity or fuel was consumed.
- Ensure this province matches the province selected in the relevant Scope 1 and Scope 2 tabs.
- Do not manually enter other data in this tab. Data entered in the related tabs will populate the calculations automatically.

Tab 3.4: Freight

- Enter the cost of freight transport in CAD in column B for each shipment paid for by the reporting entity during the reporting period.
- Select the applicable mode of transportation in column C.
- If a shipment involved multiple modes of transport, select the mode that represents the largest proportion of the overall cost.
- Select the province that the freight departed from in column D.

Tab 3.5: Waste

- Identify the types of waste generated during operations.
- Enter the total weight in kilograms for each waste type in column C.
- Use measured weights where available. If actual measured weights are unavailable, use the best reasonable estimates available and document the method.

Tab 3.6: Business Travel

Use this tab for business travel associated with the production or studio, such as flights, rail travel, rental cars, taxis or rideshare, and accommodations where included in the calculator. Use actual travel distances, booking records, or expense reports where available. If exact distances are not available, use reasonable estimates and document them.

For taxi and rideshare trips, the calculator distinguishes between gasoline and electric vehicles. For gasoline trips, enter the total distance travelled in kilometres. For electric vehicle trips, enter the total distance travelled in kilometres and select the province where the trip took place, since the emission factor for electric vehicles is based on that province's electricity grid.

Tab 3.7: Employee Commuting

Use this tab to estimate emissions from employee commuting. Gather commuting information from staff surveys, HR records, or reasonable estimates. Include commute mode, distance, frequency, and hybrid work patterns where applicable. Work from home emissions are automatically calculated based on the number of work from home days inputted.

Summary Total Footprint

The Summary Total Footprint tab brings together emissions from the relevant calculator tabs. Use this tab to review total emissions by scope and category, check whether expected sources are included, identify missing or unusual results, and add prior-year or lifecycle totals when reporting at the production level.

- Do not overwrite automatically calculated totals.

Documenting Assumptions and Exclusions

Good documentation is essential for transparent emissions reporting. Document assumptions whenever actual data is unavailable, estimates are used, spend-based data is used instead of physical activity data, categories do not perfectly match available calculator options, emissions are allocated from studio-level data to a specific production, or a source is excluded.

ITEM TO DOCUMENT	EXAMPLE
Source excluded	Parent-company-owned facility equipment.
Reason for exclusion	Not purchased or controlled by the production entity.
Scope impact	Excluded from production-level footprint.
Supporting explanation	Asset is managed by the parent company and not under operational control of the production.

Quality Check Before Finalizing

Data completeness check

- | | |
|--|---|
| ☐ Natural gas and other heating fuels. | ☐ Electricity. |
| ☐ Company-owned or leased vehicles. | ☐ Generators or other fuel combustion sources. |
| ☐ Purchased goods and purchased services. | ☐ Capital goods. |
| ☐ Freight. | ☐ Waste. |
| ☐ Business travel. | ☐ Employee commuting. |
| ☐ Accommodations, if applicable. | ☐ Prior-year production lifecycle data, if applicable. |

Formula and reasonableness check

- Only enter data in user-input cells.
- Do not overwrite formula cells or tCO₂e calculation cells.
- Confirm required selections such as province and units are complete.
- Check for wrong units, missing province selections, duplicate entries, missing travel or commuting records, and omitted prior-year production data.

SECTION TWELVE

Recommended Data Sources

DATA NEEDED	POSSIBLE SOURCE
Natural gas use	Utility bills, landlord data, meter readings.
Electricity use	Utility bills, submeter data, landlord data.
Fuel use	Fuel cards, receipts, vehicle logs, generator records.
Purchased goods	Procurement reports, invoices, accounting records.
Purchased services	General ledger, vendor invoices, accounting reports.
Capital goods	Fixed asset register, capital expenditure reports.
Freight	Shipping invoices, courier records, procurement records.
Waste	Waste hauler reports, building management records, estimates.
Business travel	Travel booking systems, expense reports, HR records.
Employee commuting	Staff survey, HR location data, hybrid work assumptions.

SECTION THIRTEEN

User Responsibilities

- Choose the correct organizational and operational boundary.
- Enter complete and accurate activity data.
- Use the best available data source.
- Avoid changes to formula cells.
- Document estimates, assumptions, and exclusions.

- Review outputs for completeness and reasonableness.
- Interpret calculator results in line with the methodology.

The calculator supports emissions estimation, but the quality of the result depends on the quality and completeness of the data entered.