

Carbon Footprint Estimates & Offsets



Eagle Wing Tours

FY 2005 - 2009

| | |
|--------------|--|
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| Completed | 12/8/2022 |

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Inventory Information

| | | | |
|------------------------|---|-------------------------|----------------|
| Company Name | Eagle Wing Tours | | |
| Contact Information | Brett Soberg | info@eaglewingtours.com | (250) 384-8008 |
| Consolidation Approach | Operational Control: Accounting for 100% of emissions from operations over which the company has operational control. | | |
| Temporal Boundary | December 1, 2005 to November 31, 2009 | | |
| Inventory Boundary | Scope 1 (Direct Emissions) - Gasoline, Marine Diesel (fuel for boats and company vehicles) | | |
| | Scope 2 (Indirect Emissions from Purchased Electricity) - Purchased Electricity (BC Hydro) | | |
| | Scope 3 (Indirect Emissions from Other Sources) - Water, Waste, Stationery, Paper Products, Company Travel, Shipping, Staff Commuting | | |
| Scope 2 Approach | Location Based Emissions Calculation | | |
| Primary Measurement | Carbon Dioxide Equivalent (CO ₂ e) | | |
| Reporting Guidelines | Aligned with those defined in <i>The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition (The GHG Protocol, www.ghgprotocol.org)</i> . Emissions factors reviewed & approved by Ostrom. | | |

| Reporting Period (Dec 1 - Nov 30) | Company Description | Inventory Boundary | | |
|--------------------------------------|---|----------------------------|-------------|--|
| | | Scope 1 | Scope 2 | Scope 3 |
| FY 2005 | Office space, company vehicles, and 2 boats (Goldwing & Eaglewing-Scarab) | Gasoline, Marine Diesel | Electricity | Water, Waste, Stationery, Paper Products, Company Travel, Shipping, Staff Commuting |
| FY 2006 | Office space, company vehicles, and 2 boats (Goldwing & Eaglewing-Scarab) | | | |
| FY 2007 | Office space, company vehicles, and 2 boats (Goldwing & Eaglewing-Scarab) | | | |
| FY 2008 | Office space, company vehicles, and 2 boats (Goldwing & Serengeti-Scarab) | | | |
| FY 2009 | Office space, company vehicles, and 2 boats (Goldwing & Serengeti-Scarab) | | | |

Summary of Results

Total tCO₂e **1,346**
2005-2009

These emissions are equivalent to:

 **359**
Cars / year

 **4,245**
Barrels of Oil

Carbon Neutrality

By offsetting emissions from 2005-2009, Eagle Wing Tours has been operating as a carbon neutral company since their first day of operations

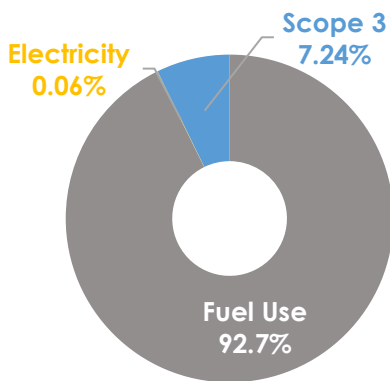
Executive Summary

Eagle Wing Tours is a carbon neutral whale watching company based in Victoria, BC. The company has one small office/reception space at Fisherman's Wharf, three company vehicles, and four boats. Eagle Wing Tours is committed to operating as a carbon neutral business and has been monitoring, reducing, and offsetting their carbon footprint since 2010.

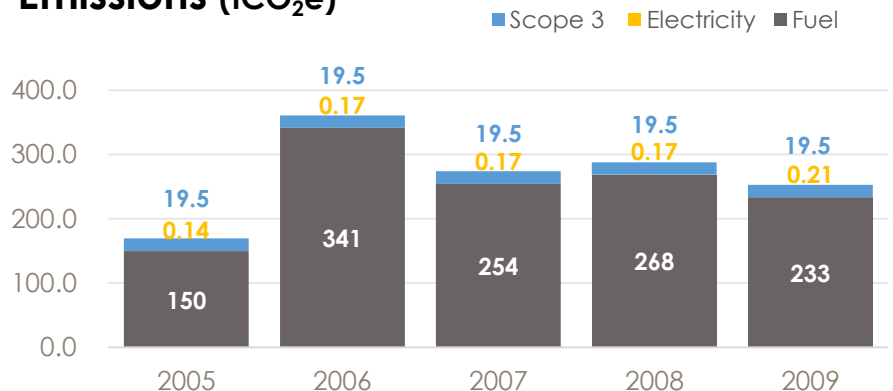
This historical analysis covers all material scope 1, 2 and 3 emissions from the beginning of the company to 2010 when carbon reporting began. The inventory boundary includes gasoline and diesel used in company vehicles and boats, electricity used at the Fisherman's Wharf office, waste, paper, travel, shipping, and staff commuting. Financial records for fuel purchases were combined with a healthy over-estimate of all other emission sources to ensure confidence in the results.

Total emissions for Eagle Wing Tours' first five years of operations results in 1,346 tCO₂e. An average of 269 tCO₂e were emitted annually. Emissions were highest in 2006 (361 tCO₂e) and in 2008 (288 tCO₂e). Every year, fuel use was the largest source of emissions, accounting for 93% of Eagle Wing Tours' carbon footprint from 2005 to 2009.

Inventory Results



Emissions (tCO₂e)



| | Scope 1 | Scope 2 | Scope 3 | Combined tCO ₂ e | Change since Baseline | |
|--------------|----------------|-------------|-------------|-----------------------------|-----------------------|---------|
| | | | | | tCO ₂ e | Percent |
| 2005 | 149.9 | 0.144 | 19.5 | 169.5 | | |
| 2006 | 341.4 | 0.169 | 19.5 | 361.1 | 191.5 | 113% |
| 2007 | 254.4 | 0.169 | 19.5 | 274.0 | 104.5 | 62% |
| 2008 | 268.5 | 0.169 | 19.5 | 288.1 | 118.6 | 70% |
| 2009 | 233.2 | 0.211 | 19.5 | 252.9 | 83.3 | 49% |
| Total | 1,247.3 | 0.86 | 97.4 | 1,345.6 | | |



42,254

kWh Energy



461,781

Litres of Fuel



269

tCO₂e / year

tCO₂e

1,346

Inventory Uncertainty

Total fuel tCO₂e was estimated based on financial records for fuel purchases from 2005 - 2009. By calculating the average gasoline and diesel use from 2010-2020, it was estimated that 43% of all historical fuel purchases were for gasoline, while the remaining 57% were for marine diesel.

Electricity emissions were calculated based on the average electricity consumption from 2010-2020.

An average of all scope three emissions from 2010-2020 was calculated then doubled for a conservative estimate.

Emissions References

1. 2010 B.C. Best Practices Methodology for Quantifying Greenhouse Gas Emissions
<https://www2.gov.bc.ca/assets/gov/environment/climate-change/cng/methodology/2018->
2. Environment Canada's National Inventory Report (2005 - 2009); Part 2 & 3.
<https://www.publications.gc.ca/site/eng/9.506002/publication.html>
3. Department for Environment, Food & Rural Affairs (UK) Carbon Factors 2021
<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors->
4. Intergovernmental Panel on Climate Change (Global Warming Potentials)
http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html

All emissions factors are reviewed and approved by Ostrom Climate Solutions (<https://ostromclimate.com/>) on an annual basis.

Policy for Base Year Recalculation:

Base year emissions, and other previous emissions, shall be retroactively recalculated if a change in organizational structure or data quality is expected to exceed a significance threshold of 10% of base year emissions. These changes may arise from structural changes such as mergers, acquisitions, divestments, outsourcing or insourcing, changes in calculation methodology and improvements in accuracy, or discovery of significant errors.

Glossary of Terms

| Term | Description |
|--------------------|--|
| GHG | Greenhouse Gas (emissions): Atmospheric gasses contributing to the greenhouse effect, including Carbon Dioxide (CO ₂), Methane (CH ₄), Nitrous Oxide (N ₂ O), etc. |
| GJ | Gigajoule: Unit of natural gas equal to 26.137 m ³ or 0.947 MMBtu |
| kWh | Kilowatt-Hour: Common unit for measuring electrical consumption |
| m ³ | Cubic Meter: Unit of measurement equal to 1,000 Litres |
| psg-km | Passenger-Kilometer: Unit separating total emissions between passengers per km |
| Ream | Standard unit of paper measurement equal to 500 sheets (with 10 reams in one box) |
| tCO ₂ e | Tonnes of Carbon Dioxide Equivalent: a combined term capturing the emissions from various GHGs. |
| t-km | Tonne-kilometer: A unit of measurement used in shipping |

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