



# Tourism Operator Emissions Calculator

## Summary

Awareness of the impacts of climate change and the need to reduce greenhouse gas emissions is growing within the tourism industry. A free, user-friendly emissions calculator has been developed by the Great Barrier Reef Marine Park Authority (GBRMPA) to provide an easy way for tourism operators on the Great Barrier Reef to calculate their greenhouse gas emissions levels. Tourism operators now have access to information about how to reduce their emissions and can track the results of any changes they do make. This project aims to reduce the overall carbon footprint of the Great Barrier Reef tourism industry.

## Background

Climate change is continually presenting new challenges to which the tourism industry needs to adapt. Tourism operators and visitors to the Great Barrier Reef are increasingly aware of the need to reduce their carbon footprints. Consumers are also becoming more discerning about the products they purchase and the businesses they support. Many tourism operators realise the marketing potential of green initiatives and the economic gains associated with increased energy efficiency and other carbon reduction methods.

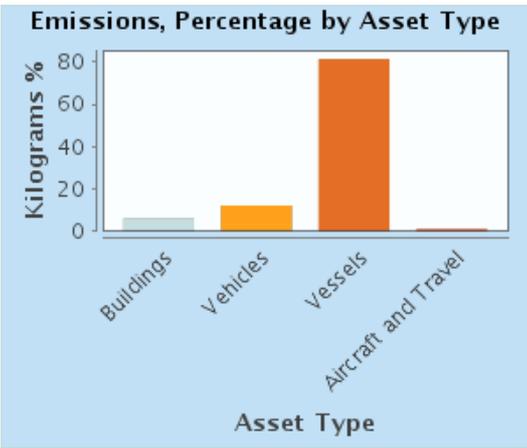
Tourism businesses operating in the Great Barrier Reef Marine Park produce emissions in a number of ways. Emissions can result from the use of boats, transport vehicles, staff travel, business flights and office activities. Emissions calculators measure greenhouse gas emissions of a variety of personal and business activities.

Existing emissions calculators do not deal with the many different sources of emissions involved in the tourism industry. There was no user-friendly calculator option for the tourism industry and it was often difficult for operators to determine which of the existing calculators were reputable and relevant. Many operators had to rely on an energy audit as a mechanism for increasing their energy

efficiency, however this was often an expensive option and not affordable to many of the smaller businesses.

## Objectives

Many tourism operators want to make their business more sustainable but are unsure of where to start. This project sought to increase the tourism industry's awareness of climate change and to mentor tourism operators to take the first step in the right direction. The primary goal was to reduce greenhouse gas emissions and ultimately decrease the carbon footprint of the Great Barrier Reef tourism industry. By using the calculator, tourism operators will gain a greater understanding of which assets produce more greenhouse gases and the overall emissions for their business. Changes that operators can make accompany each section of the emissions calculator.



There were 5,013,412t of greenhouse emissions total, entered by the 90 operators participating for the Financial Year ending June 2011. Emissions are represented here by asset type.

**Project name:** Tourism Emissions Calculator  
**Project number:** 4.2-402-8-08  
**Outcome:** D2 & D2.2  
**Year:** 2008—2009  
**Bulletin type:** Final

## Actions

In 2008, Tropical Energy Solutions was contracted by the GBRMPA to develop an emissions calculator. The calculator was designed to be used by tourism industry members who operate within the Great Barrier Reef Marine Park.

After the calculator was developed workshops were held with Cairns and Whitsunday tourism operators, including the Association of Marine Park Tourism Operators (AMPTO). Suggestions from tourism operators and the Climate Change Group were then incorporated into the calculator to make the product more user-friendly and relevant. Tips on ways to reduce emissions were incorporated throughout the emissions calculator program.

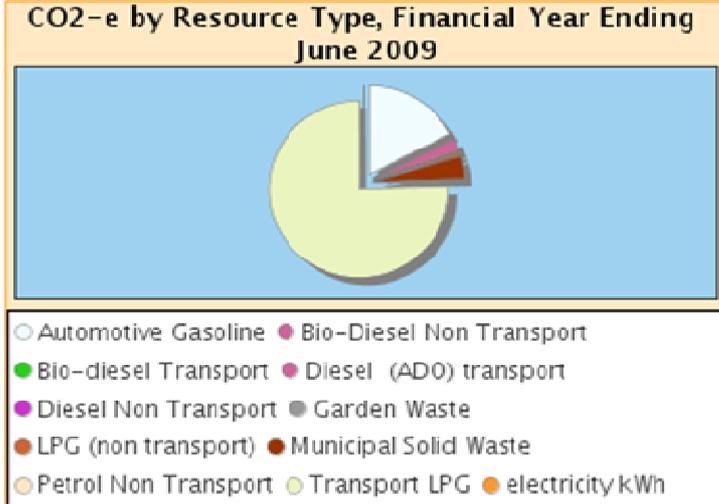
For example:

- Using more efficient engines in vessels
- Trialing biodiesel options
- Reducing waste by printing double sided, reusing scrap paper and recycling as well as advertising through non-paper methods
- Servicing vehicles and vessels regularly
- Making offices 'climate smart' by switching to solar or green power and turning off equipment overnight.

Interesting facts were also added such as 'each degree warmer you set the air conditioner saves you 5% in energy costs and will reduce your emissions'.

An externally hosted website was developed to host the calculator and a link to the calculator was placed on the

*The tourism emissions calculator determines emission levels and displays operator emissions proportionately within an operation*



websites of the GBRMPA, the Department of Environment and Resource Management (DERM) and the Department of Climate Change.

## Outcomes

Over 75 tourism operators are using the tourism emissions calculator and this number should increase with rising awareness. The positive response likely reflects the targeted nature of the tool and its user-friendly interface.

Tourism operators can now more effectively calculate their carbon footprint. This should help increase the number of carbon neutral businesses. By recording a starting point and the ability to make changes, operators will be able to determine the effect that adjustments to their operations have on reducing their emissions. The tourism emissions calculator is part of a broad range of climate change extension initiatives developed by the GBRMPA (others include climate change workshops and case studies). Many of the other initiatives are linked to the calculator, encouraging increased use of the calculator and therefore direct action by tourism operators in the face of a climate change future.

There is also potential to amend and tailor the calculator (with minimal cost) for use by other industries that operate within the Great Barrier Reef Marine Park. An example has been the fisheries emissions calculator produced by the GBRMPA for the commercial fishing industry.

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