



The Mikado Regional Queensland Tour

Presented by Opera Queensland

Each year Opera Queensland presents at least three major operatic productions in Brisbane and numerous smaller productions, concerts and tours of operatics and lighter musical material in other venues throughout Queensland.

As a touring body in a state where vast distances are travelled, Opera Queensland has agreed to profile a recent regional Queensland tour of The Mikado. This profile will assist the Greener Live Performances project team to understand the opportunities for improvement as well as challenges that prevent greater take-up of sustainable touring processes.

The Data

The Mikado had a touring party of 50 people, travelled to 6 regional towns and performed a total of 6 shows with 3,300 tickets issued in large venues (over 700 seat capacity) during a two-week season.

Breakdown as follows:

- Bus travel for personnel (diesel coach) 3,772 Km
- Domestic flights from Townsville to Brisbane (one-way) 1,536 Km 47 people
- Trucking freight from Brisbane to Townsville (return) 3,290 Km over 33 tonne
- Show power – calculated at 600 kWh per venue 3,600 kWh
- Accommodation
 - Performers and Management 34 people 272 hotel nights
 - Production 13 people 182 hotel nights
 - Support 3 people 33 hotel nights

Activity	Emission Source	Scope ¹	Activity Data	Unit of Measure	Emissions t CO ₂ -e
Bus Travel	Diesel Fuel	3	3,772	Km	3.08
Domestic Flights	Aircraft Fuel	3	1,536	Km	11
Trucking Freight	Diesel Fuel	3	3,290	Km	2.69
Show Power	Electricity	3	3,600	kWh	0.4
Accommodation	Electricity	3	12,662	kWh	1.5
TOTAL					18.67

Indicator 3.1 t CO₂-e / performance
Indicator 5.65 kg CO₂-e / ticket issued

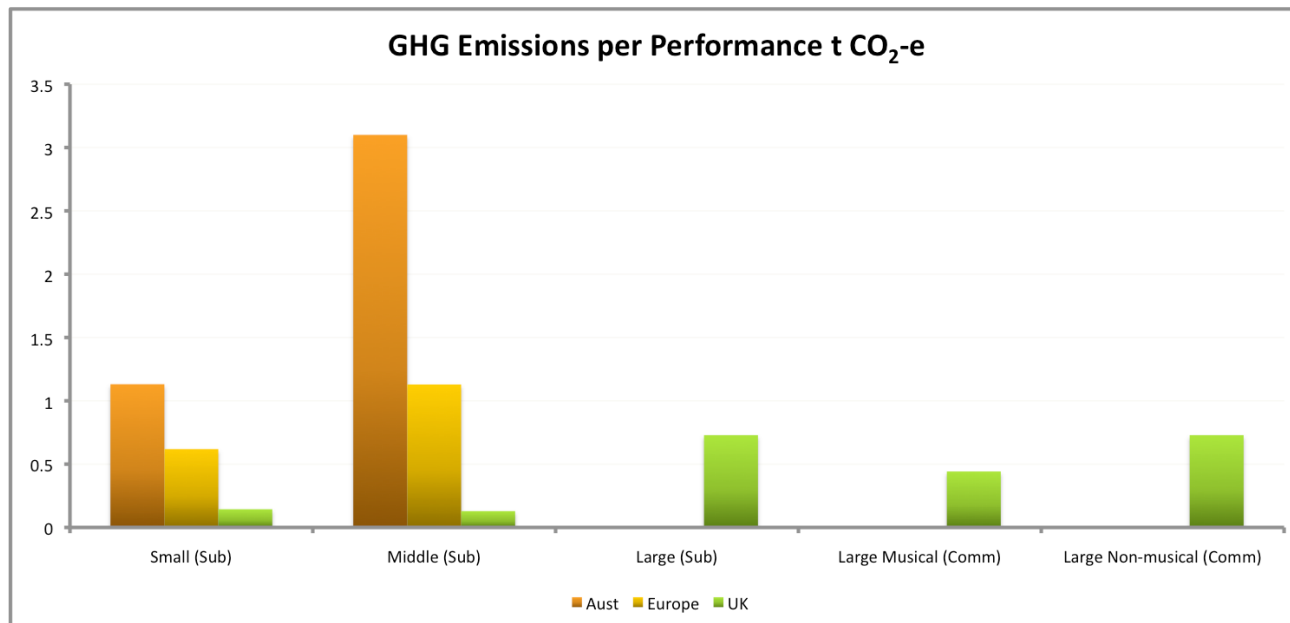
¹ Refer methodology section below for explanation of Scope



Global Benchmarks

Live Performance Australia lead agency on the Greener Live Performances project have identified the need for robust and relevant sustainability benchmarking to be available supporting industry organizations with plotting individual outcomes against those internationally.

Graph 1 outlines Greenhouse Gas Emissions per performance displayed as tonnes / CO₂-e.



Graph 1 has been developed using information from Julie's Bicycle and Greener Live Performances

The Australian representation within this graph is that of The Mikado at 3.1 t CO₂-e / performance. It is important to note that this graph is not a good example comparison for the tour as the benchmarking data available for both Europe and UK represent t CO₂-e / performance of static (non-touring) shows.

Additionally, the national standard for greenhouse emission factors between the countries varies greatly, again making it difficult to draw relevant comparisons.

This highlights the need for Australia to collect and make available suitable benchmarking statistics for industry use.

Methodology for calculations

The greenhouse gas emissions as calculated for the purposes of the Greener Live Performances project are based on The National Greenhouse Accounts (NGA) as prepared by the Department of Climate Change and Energy Efficiency. Supporting guidelines include National Greenhouse and Energy Reporting (Measurement) Technical Guidelines July 2011.

All activities profiled have been determined as Scope 3 emissions; thereby emissions resulting from the transportation of goods, employees or products in non-company owned / controlled mobile sources. This includes electricity consumed in venues that are not under the control of the hiring company.

Assumptions:

- Per hotel night electricity consumption 26 kWh
- Fuel efficiency of bus and freight truck 40 litres / 100 Km

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