



Industry Green Venues / Cultural Buildings: 3 stars

Glyndebourne

2012



		<p>Industry Green: Venue and Cultural Building</p> <p>Applicant: Glyndebourne</p> <p>Venue: Glyndebourne</p> <p>Julie's Bicycle assessors: Christina Tsiarta, Claire Buckley</p> <p>Date: 8th July 2013</p>
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Industry Green Venue & Cultural Building Report & Carbon Audit: Glyndebourne 2012

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Executive Summary

Glyndebourne has been awarded the IG mark (3 stars) following a carbon audit and Industry Green assessment covering 2012, with 2011 serving as the baseline year. The audit and assessment were conducted by Julie's Bicycle on the basis of emissions data and evidence submitted by Amsel Von Spreckelsen, Finance Assistant, and Sarah Hopwood, Director of Finance and Resources. Glyndebourne may use the IG mark (3 stars) in its communications for one year, up to June 2014, or whenever its IG certification is superseded by a 2013 certification.

Summary of IG rating		
Commitment		* * *
Understanding		* * *
Improvement		* * *
Communication		* * *
Overall Industry Green rating		* * *

Your rating explained:

Glyndebourne has been awarded 3 stars overall for 2012, achieving three stars across the board. This is the highest IG rating possible, currently held only by one other venue and three outdoor festivals, of a current total of about 45.

Glyndebourne was awarded 2 stars Industry Green overall in 2011. Comparing 2011 and 2012, Glyndebourne maintained its 3 stars for Commitment, Understanding and Improvement, and improved its rating for Communication from 2 to 3 stars.

Absolute emissions - 2012

Sources of GHG emissions	Tonnes CO ₂ e	%
Electricity*	68	1%
Gas	326	6%
Water use (+sewerage)	15	0.3%
Waste to landfill	37	0.7%
Business travel (incl. accommodation)	98	2%
Fleet (incl. diesel used in tractors)	49	1%
Deliveries	22	0.43%
Tour travel (incl. accommodation)	38	0.7%
Tour freight	16	0.3%
Staff commuting	451	9%
Audience travel	4,024	78%
Paper	0.6	0.01%
Total	5,144	100%

*Since 2012 Glyndebourne derives most of its electricity from its on-site wind turbine.

Emissions and energy performance - 2011 to 2012

	2011	2012	% change
Absolute emissions: electricity, gas, water, sewerage, waste, business travel and fleet*	1,309 tCO ₂ e	593 tCO ₂ e	-55%
Emissions per performance: electricity, gas, water, sewerage, waste, business travel and fleet**	14.23 kgCO ₂ e	6.51 kgCO ₂ e	-54%
Absolute energy use: electricity & non weather-normalised gas	2,882,694 kWh	3,251,826 kWh	+13%
Energy use per performance: electricity & non weather-normalised gas**	30,344 kWh	34,594 kWh	+14%

*To compare performance over the two years only emissions under the standard Industry Green scope are covered i.e. energy, water, sewerage, waste, business travel (incl. accommodation) and fleet (including diesel used in tractors on-site).

**Glyndebourne's improvement is assessed on the basis of these two relative performance indicators.

Comparing 2011 and 2012:

- Overall energy use (kWh) increased by 13%. This covers a 3% increase in electricity use (kWh) and a 25% increase in gas use (kWh). However energy use emissions decreased by an outstanding 62%, as for the first time in 2012 it was able to meet the majority of its electricity needs through its on-site wind turbine;
- Water use (cubic metres) increased by 18%;
- Total waste volumes increased by 55%. However 30% went to landfill in 2012, compared with 47% in 2011 and 70% of total waste was recycled in 2012 compared to 53% in 2011. Therefore emissions from waste to landfill decreased by 1% compared to 2011;
- Emissions related to business travel increased by 1% between 2011 and 2012;
- Glyndebourne's fleet emissions, decreased by 5% between 2011 and 2012;
- Tour travel and accommodation emissions increased by 29% between 2011 and 2012 and tour trucking freight emissions decreased by 40%;
- Emissions from deliveries increased by 19% comparing 2011 to 2012.

Key strengths:

- Glyndebourne's approach to securing a zero carbon electricity supply via its on-site wind turbine is an outstanding indication of its commitment to sustainable energy and energy self-sufficiency. It has also investigated the use of other low and zero carbon on-site energy sources via biomass boilers and geothermal heating, although the studies done have shown that these measures are not economically feasible;
- Investment in energy efficiency by installing high-efficiency gas-fired condensing boilers in 2013 and two monitors to consolidate every energy point throughout the whole building, which will help with monitoring and measuring. It is also planning to bring in experts to investigate insulation solutions suitable for the building such as double glazing;
- Glyndebourne is engaging in an exceptional manner with its staff and its audience through a range of initiatives and communication channels, as well as using its educational programme to inform and educate its community and stakeholders on environmental issues;
- Glyndebourne has a good and solid understanding of the overall environmental impacts of its festival and tour, which helps ensure that resource use and related emissions are better managed and reduced. It has a long-term goal of minimising its carbon footprint, and seeking to use zero or low-carbon energy sources where possible.

Key areas to develop further:

- Now that is meeting most of its electricity demand through an on-site zero-carbon energy source, Glyndebourne should focus on reducing its total energy usage (kWh), focusing both on electricity and in particular, gas. Following the recent installation of an energy monitoring system, it should be able to better understand how much electricity and gas is being used, when and for what, and identified priority areas for reducing energy use;
- Glyndebourne should work to improve monitoring of its business travel and transport emissions to enable it to develop targeted actions to reduce these emissions;
- Glyndebourne's audience travel survey was last conducted in 2007 and current audience travel data is, with the exception of coach travel between Lewes train station and Glyndebourne, based on assumptions and estimates. However Glyndebourne will be able to collect actual audience travel data via the Local Economic Impact Assessment it is conducting in 2013;
- Glyndebourne's current staff commuting data is based on assumptions and estimates as the last survey was done in 2011. To improve the quality of its data and understanding of related impacts, Glyndebourne should conduct a new survey in 2013;
- Glyndebourne should improve the quality of its waste data to include a more accurate breakdown of waste to landfill and to recycling, and increase the scope of its waste data e.g. to cover composted garden waste and production materials. It should also improve data quality on audience travel and deliveries;
- Glyndebourne has had varying degrees of success in engaging staff on environmental awareness. Providing training for staff with specific environmental roles or responsibilities, and general environmental training and awareness-raising for all staff should increase their understanding of Glyndebourne's environmental impacts and how they can contribute to reducing these impacts;
- Glyndebourne should work on engaging on environmental issues with incoming artists and the touring venues it uses, for example by introducing a Green Rider, i.e. a set of environmental questions and requests for the venues it uses while on tour. There is also potential for engaging on sustainability with sponsors and identifying co-operation opportunities with sponsor's support.

I. Commitment

I.1 Assessment

Commitment	Star rating
<p>Two people responsible for environmental performance - one board member/ director/ senior staff and one at an operational level AND Environmental / sustainability policy in place AND under regular review AND Gaining commitment to improving environmental performance at least one of the following: staff; supply chain organisations; incoming artists AND the audience OR Gaining exceptional commitments to improving environmental performance from at least one of the following: staff; supply chain; incoming artists</p>	

Summary of your assessment

Glyndebourne has an environmental policy and an environmental strategy, both of which are regularly reviewed. It has established environmental roles and responsibilities across the board, with its committee of Environmental Champions. It has undertaken a range of initiatives to engage with management, staff, supply-chain, audience and its local community on environmental issues, demonstrating exceptional environmental commitment. As such Glyndebourne has been awarded 3 stars Industry Green for Commitment, maintaining its 3 stars rating for Commitment from its previous assessment.

I.1.1 Policy

Glyndebourne has an environmental policy, which outlines its commitment to making its operations sustainable and reducing its impacts, last revised in September 2011 and signed off by the Executive Chairman (it has since been reviewed but deemed to be still quite relevant so it has not been revised). It is accompanied by an environmental strategy outlining how its commitments will be met and identifying priorities for 2013.

I.1.2 Staff

Glyndebourne’s committee of Environmental Champions, representative from departments across the organisation, provides a regular opportunity for monitoring actions and progress and identifying further improvement opportunities. All staff have a responsibility to ensure that positive steps are taken to reduce the company’s environmental impacts wherever possible, as outlined in the company’s environmental policy and the staff handbook. Certain heads of department are delegated specific environmental responsibilities such as the Building and Services Manager for energy management, water, etc. and the Front of House Manager for general waste and recycling. A range of initiatives are in place to help staff reduce their impacts. These include an on site electric car charging point; cycle to work scheme; free travel loans to encourage use of public transport; and free buses to and from the local train station.

Glyndebourne has had varying degrees of success in engaging staff on environmental awareness and is currently looking at further options to strengthen awareness and understanding and encourage behavior change.

1.1.3 Supply-chain

Glyndebourne has a high level of environmental engagement with its supply-chain and has introduced environmental criteria into its procurement procedure, e.g. for office supplies and printing services. It also works with external experts to advise on environmental initiatives, e.g. on waste. For example, even though Glyndebourne itself has no food sourcing policy, its main catering contractor Leiths, part of the Compass Group, and has a sustainable food policy.

1.1.4 Audience

Glyndebourne has a range of initiatives to engage and communicate with its audience on its environmental initiatives, with a particular focus on audience travel, a significant element of Glyndebourne's carbon footprint. Audience members are provided with on-site electric car charging points and free coaches to and from the local train station. They are encouraged to share lifts and travel by public transport and helicopter landing was banned in 2008. Glyndebourne also delivers a year-round educational programme, which includes its environmental activities.

1.1.5 Wind turbine

In December 2011, following several challenging years, the blades of Glyndebourne's wind turbine finally started turning. The turbine is the key demonstration of Glyndebourne's commitment to reducing its energy and carbon impacts. Since January 2012 it has been calculating the power generated, imported and exported by the turbine. During 2012 92% of Glyndebourne's electricity use was provided by the turbine, equaling to 1,573,594 kWh of zero-carbon energy, thus avoiding ~819 tonnes CO₂e. By reducing its long-term energy costs the turbine will contribute to Glyndebourne's longer-term financial viability and security of local employment. It has also been and continues to provide an excellent opportunity to engage with the local community in raising awareness on wind energy development.

Picture 1 Wind Turbine



1.2 Recommendations

Summary recommendations

To maintain 3 stars for Commitment, Glyndebourne must continue implementing and reviewing its environmental policy and strategy and its efforts to involve directors, staff and supply-chain in its environmental initiatives. It should also continue its exemplary work on engaging with its staff. To improve even further Glyndebourne should also consider developing its existing audience and supply-chain engagement initiatives and engaging with other stakeholder groups with which it has not already engaged, such as incoming artists and/or sponsors.

To maintain its 3 stars for Commitment, Glyndebourne will need to continue reviewing and updating its environmental policy, when relevant (the last update was in September 2011 but the policy has been reviewed since and deemed still relevant) as well as its strategy, and maintain its current level of engagement with staff and management, as well as building on existing engagement with its supply-chain and audience.

Julie’s Bicycle would further recommend that Glyndebourne:

- Communicate its full environmental policy and highlights from its environmental strategy, once reviewed and updated, through its website and social media;
- Identify and develop a plan to meet the training needs of staff with specific environmental roles or responsibilities, and develop general environmental training and awareness-raising sessions for all staff to increase their understanding of Glyndebourne’s environmental impacts and how they contribute to reducing these impacts;
- Develop further audience engagement initiatives, focusing on a specific topic such as waste and recycling, or travel impacts and;
- Develop environmental engagement initiatives with incoming artists and tour venues, for example developing a Green Rider initiative for the Festival and the Tour to identify specific areas for environmental co-operation and improvement.

2. Understanding

2.1 Assessment

Understanding	Star rating
Measuring at least six sources of environmental impact – this must include energy use, water use, sewerage, waste and business travel and at least one other source of impact.	

Summary of your assessment

Glyndebourne has provided comparable data to Julie’s Bicycle for seven consecutive years (2006 to 2012) on energy use (i.e. electricity and gas), water use, waste, business travel (including accommodation), fleet (including diesel used in tractors on-site), tour travel (including accommodation) and tour freight, deliveries, staff commuting and

audience travel. Actual paper use data was provided for the first time in 2012. Diesel use and sewerage volumes are estimated for all years. Overall Glyndebourne has a very good understanding of its impacts and emissions. Potential areas for improvement include waste, deliveries and audience travel monitoring and measurement. Based on this assessment Glyndebourne has been awarded 3 stars Industry Green for Understanding.

2.1.1 Scope of the analysis

Glyndebourne has provided data for seven consecutive years (January to December). During this time the scale of the venue has remained unchanged (1,260 seats and 1,346 m²). The data provided and presented in this report cover Glyndebourne's building only. The restaurant and the Mansion House situated on-site, which reimburse Glyndebourne for power use, are excluded. Data provided has gone beyond the Industry Green scope of energy use, water use, sewerage, waste, business travel and accommodation and fleet (including diesel used in tractors on-site) to cover sources of emissions such as touring, staff commuting, deliveries and paper. A detailed explanation of the carbon audit methodology is provided in Appendix 2 Carbon Audit and IG Methodology.

Table I Data basis for emissions calculations

	2006	2007	2008	2009	2010	2011	2012
Performances	94	95	98	97	102	92	91
Tickets sold	n/a	n/a	n/a	n/a	n/a	116,095	112,596
Energy use							
Electricity - kWh	1,902,428	1,966,481	1,993,497	1,987,153	2,165,373	1,538,735	1,573,594
of which wind turbine kWh						n/a	1,443,261
Gas - kWh	2,025,745	2,005,380	2,078,434	1,906,419	2,152,306	1,343,981	1,678,232
Waste ¹							
Landfill - tonnes	8.4	5.6	41.9	45.5	134.6	128.5	127.7
Recycling - tonnes	n/a	4.2	n/a	n/a	n/a	146.2	298.7
Water use (+sewerage) - m ³	12,823	11,637	21,067	15,904	20,425	11,863	14,000
Business travel (incl. accommodation)	Mileage for flights, public transport (i.e. bus, train and ferry), private cars and taxis plus numbers of hotel room nights in the UK and abroad, all from annual expenses for employees and freelance staff.						
Fleet	Mileage for fleet – cars, vans and coach Diesel used in tractors on-site						
Deliveries	Mileage for road and air freight and transfers						
Tour travel (incl. accommodation)	Mileage for flights, public transport (i.e. bus, train and ferry), private cars and taxis, numbers of hotel room nights in the UK and abroad for employees and freelance staff all from annual expenses.						
Tour freight	Mileage for trucking freight.						
Staff commuting	Mileage for public transport (bus and rail), cars and motorbikes based on data and assumptions made in previous years.						
Audience travel	Mileage for coach transfers between local train station and venue. Data and assumptions made in previous years used for the rest of the audience travel data.						
Paper	n/a	n/a	n/a	n/a	n/a	n/a	Volumes, type and source.

Notes:

- Figures from the wind turbine covering January 2012 to December 2012 accounted for 92% of Glyndebourne’s electricity demand. Glyndebourne utilised 54% of the wind power generated over that time period, covering the rest of its demand with electricity from the grid and exporting the remaining 46% of kWh generated by the wind turbine.
- Gas use figures were provided in cubic metres and converted into kWh using the conversion factor of 1.022640 and the calorific value of 38.94167, both provided by Glyndebourne.
- Gas use figures provided in Table I (kWh) are non-weather normalised but have been weather normalised i.e. adjusted using degree-day data to account for outside weather conditions, to calculate and compare carbon emissions. Non-weather normalised gas figures are used to compare Glyndebourne’s energy use i.e. kWh per seat and per m², to the Julie’s Bicycle sector benchmarks.
- Diesel is purchased every 3 years for tractors used on-site and it is assumed that the same amount was used in 2010, 2011 and 2012. No diesel data was available for 2006 or

¹ Data was also provided on hazardous waste such as appliance removal loads (i.e. computer monitors, water coolers and a fridge), batteries, solid waste, drum paints, pesticides, solvents and other liquids. These were not included in the carbon analysis as there are no relevant emission conversion factors, but it was assumed these were disposed of in line with the WEEE Directive.

2007. The carbon emissions related to diesel use are included in the fleet carbon totals for 2008-2012.

- Waste figures were partially based on actual data and partially estimated by Glyndebourne employees.
- Glyndebourne has its own water source on-site and directly measures water use. Liquid sewerage volumes are assumed to be equivalent to water volumes.
- No data was available for staff commuting for 2012 so 2011 data and assumptions were used.

2.1.2 Analysis of overall emissions

Table 2 Absolute and relative emissions 2008 to 2012

Source of emissions	2006	2007	2008	2009	2010	2011	2012
	Tonnes CO ₂ e						
Energy							
Electricity	990	1,023	1,037	1,034	1,127	801	68
Gas	416	412	430	400	365	309	326
Water use (+sewerage)	14	12	22	17	22	12	15
Waste to landfill	2.4	1.6	12.1	13.2	39	37	37
Business travel (incl. accommodation)	87	167	99	72	82	97	98
Fleet (incl. diesel used in tractors on-site)	41	44	54	71	48	52	49
Deliveries	25	19	2	6	10	19	22
Tour travel (incl. accommodation)	n/a	n/a	41	36	33	29	38
Tour freight	n/a	n/a	16	17	17	27	16
Staff commuting	418	418	426	429	429	408	451
Audience travel	4,901	4,946	5,102	5,050	5,310	3,963	4,024
Paper	n/a	n/a	n/a	n/a	n/a	n/a	0.6
Total absolute emissions	6,894	7,043	7,243	7,145	7,481	5,756	5,144
Total absolute emissions - from energy, waste, water, sewerage, business travel and fleet	1,550	1,660	1,655	1,606	1,682	1,309	593
	kg CO₂e						
Total emissions per performance - from energy, waste, water, sewerage, business travel and fleet	16.5	17.5	16.9	16.6	16.5	14.2	6.5
	£						
Mitigation cost (£53/ T CO₂e)²	~£82,100	~£88,000	~£87,700	~£85,100	~£89,100	~£69,400	~£31,400

² Department of Energy and Climate Change (DECC) (2009). Carbon Valuation in UK Policy Appraisal: A Revised Approach. DECC, London.

Notes:

- ‘Per performance’ refers to the total number of performances at Glyndebourne each year. The ‘per performance’ result allows for comparisons with other venues and ensures venues are neither rewarded nor penalised with regards to ticket sales. The metric normally used for venues is ‘per performance per seat’ with seat referring to fixed seating capacity of the venue. However given the nature of Glyndebourne’s activities, ‘per performance’ was deemed most appropriate.
- All data submitted for previous years has been re-calculated using the most recent emission conversion factors, and therefore carbon totals might differ from previous Industry Green reports.
- The weather normalised gas figures used in the carbon analysis were: 2008 – 2,094,154 kWh; 2009 – 1,945,735 kWh; 2010 – 1,777,130 kWh; 2011 – 1,505,887 kWh; and 2012 – 1,587,901 kWh. No degree-day data exist for 2006 and 2007.
- Recycled waste is zero carbon rated and therefore not included in the calculations.
- To compare absolute and relative emissions, i.e. per performance, over the seven years, paper has been excluded. 2006 and 2007 data have also been excluded from the comparisons as no degree-day data was available for either year for gas, which makes data non-comparable.
- Mitigation costs are taken from: Department of Energy and Climate Change (DECC) (2009). Carbon Valuation in UK Policy Appraisal: A Revised Approach. DECC, London.

To enable a like-for-like comparison of Glyndebourne’s absolute and relative emissions 2008-2012, only emissions sources for which comparable annual data is available were considered. The 2008-2012 comparisons therefore cover all emissions except paper, which was only provided for 2012.

Graph I Absolute emissions - 2008 to 2012

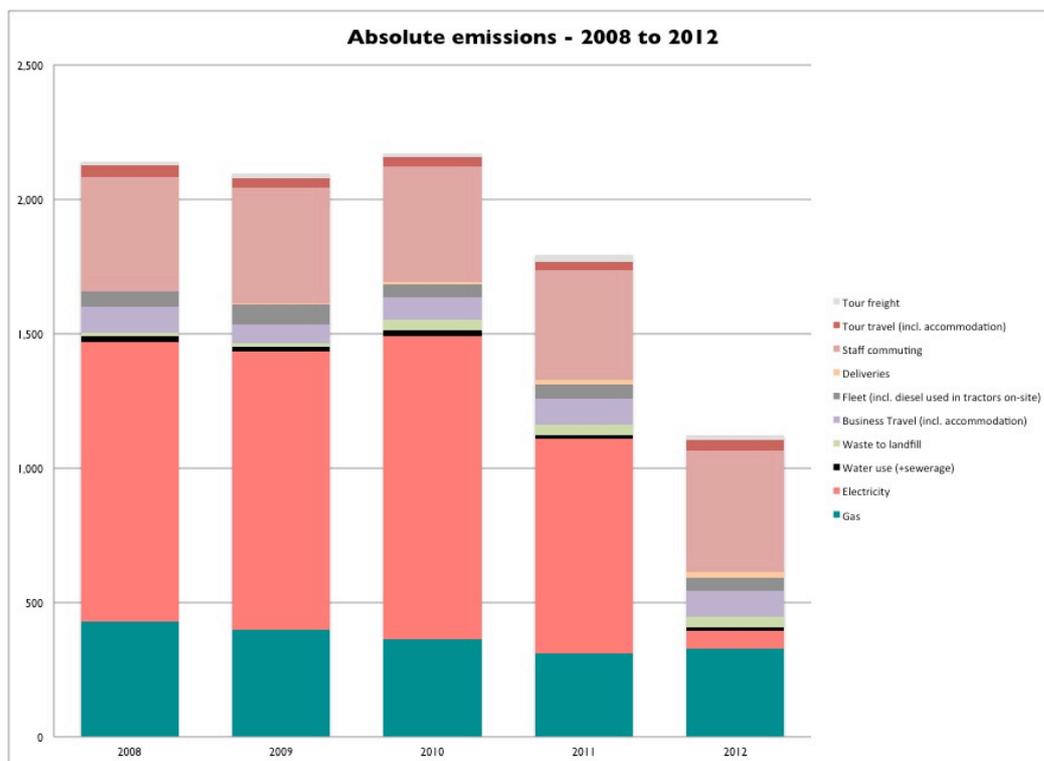


Table 3 Relative emissions per performance - 2008 to 2012

Sources of emissions	2008	2009	2010	2011	2012
	tonnes CO ₂ e per performance				
Energy					
Electricity	10.59	10.66	11.05	8.70	0.75
Gas	4.39	4.12	3.58	3.36	3.59
Water use (+sewerage)	0.23	0.17	0.21	0.14	0.16
Waste to landfill	0.12	0.14	0.38	0.40	0.41
Business travel (incl. accommodation)	1.01	0.74	0.80	1.06	1.08
Fleet (incl. diesel used in tractors on-site)	0.55	0.73	0.47	0.56	0.54
Deliveries	0.02	0.07	0.10	0.20	0.24
Tour travel (incl. accommodation)	0.42	0.37	0.33	0.32	0.42
Tour freight	0.17	0.18	0.17	0.30	0.18
Staff commuting	4.35	4.42	4.21	4.44	4.96
Audience travel	52.06	52.06	52.06	43.08	44.22
Paper	n/a	n/a	n/a	n/a	0.01
TOTAL excluding paper:	73.90	73.66	73.35	62.56	56.52
TOTAL including paper:					56.53

2.1.3 Analysis of emissions sources

Energy

Absolute energy use, considering electricity use and non-weather normalised gas (kWh), increased by 13% between 2011 and 2012 and resulting emissions decreased by 62%.

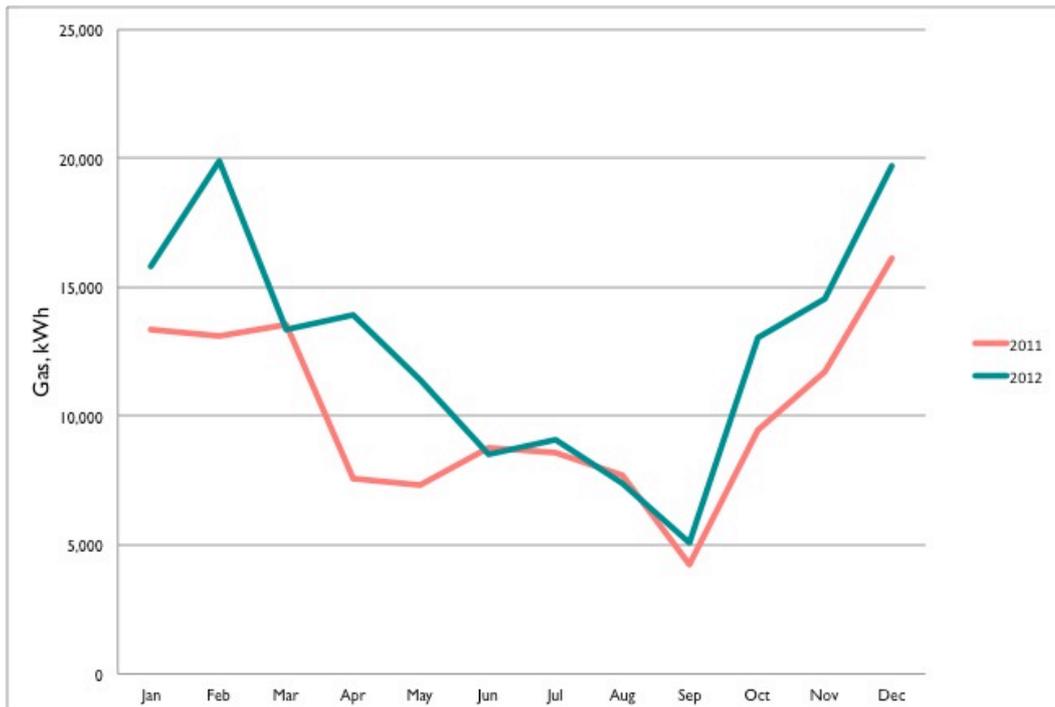
Electricity use (kWh) increased by 3% between 2011 and 2012. As can be seen by the graph below, the peak in electricity usage occurred from May to August, Glyndebourne's festival season. Non-weather normalised gas use (kWh) increased by 25%.

Peaks can be observed in Graph 2 below in the autumn and winter months, as expected. The 62% decrease in emissions is due to 92% of the electricity demand for Glyndebourne being derived from the wind turbine. In Graph 3, gas use peaks in December and January with the lowest use being recorded in September for both years on display.

Graph 2 Electricity use – 2008 to 2012



Graph 3 Gas use – 2008 to 2012



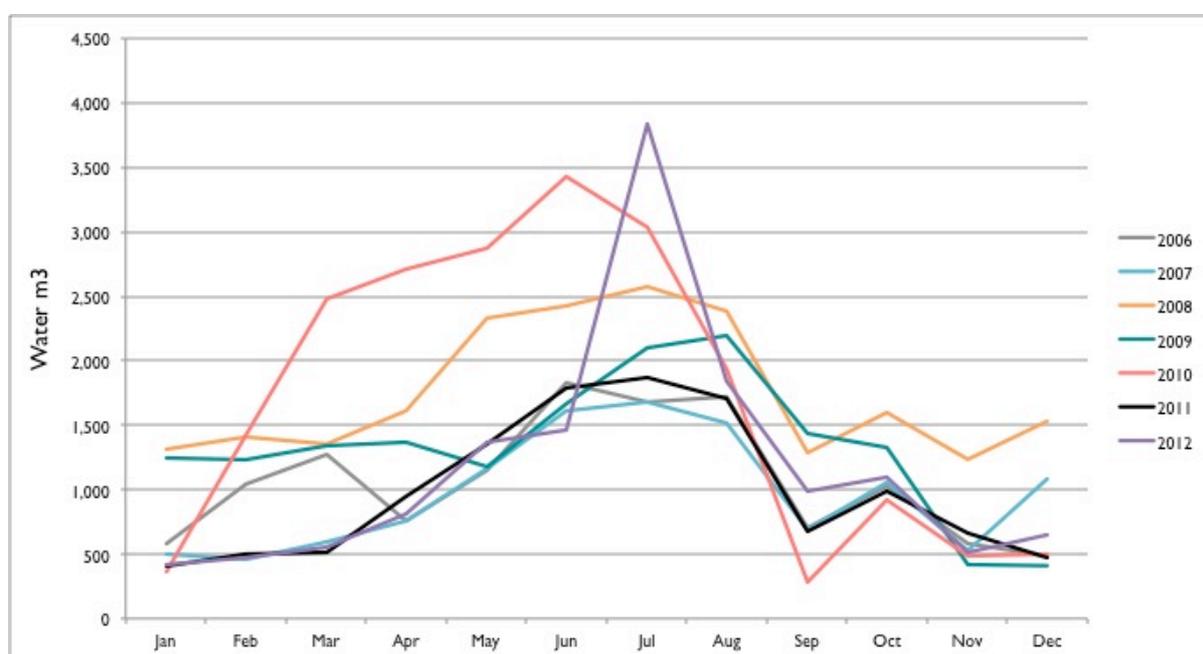
From January to December 2012, Glyndebourne’s wind turbine generated 1,443,261 kWh, equivalent to 92% of Glyndebourne’s total electricity demand. 596,744 kWh of the total kWh generated were exported to the grid (41%) and 846,517 kWh (54%) used by Glyndebourne. The rest of Glyndebourne’s electricity demand was met with electricity from the grid. The 846,517 kWh of wind power used by Glyndebourne on site saved ~440 tonnes CO₂e.

Glyndebourne has now installed an energy monitoring system, which should be able to better understand how much electricity and gas is being used, when and for what, and identified priority areas for reducing energy use

Water and sewerage

Total water use increased by 18% between 2011 and 2012, as did emissions from water use. There was a significant peak in water use demand in July 2012. This was due to water leaks, which Glyndebourne repaired once the problem was identified. Glyndebourne has its own natural spring on site from which it extracts water. Water use is measured directly by Glyndebourne. No raw data is available for liquid sewerage, so the same usage as for water was assumed

Graph 4 Water use – 2006 to 2012



Waste

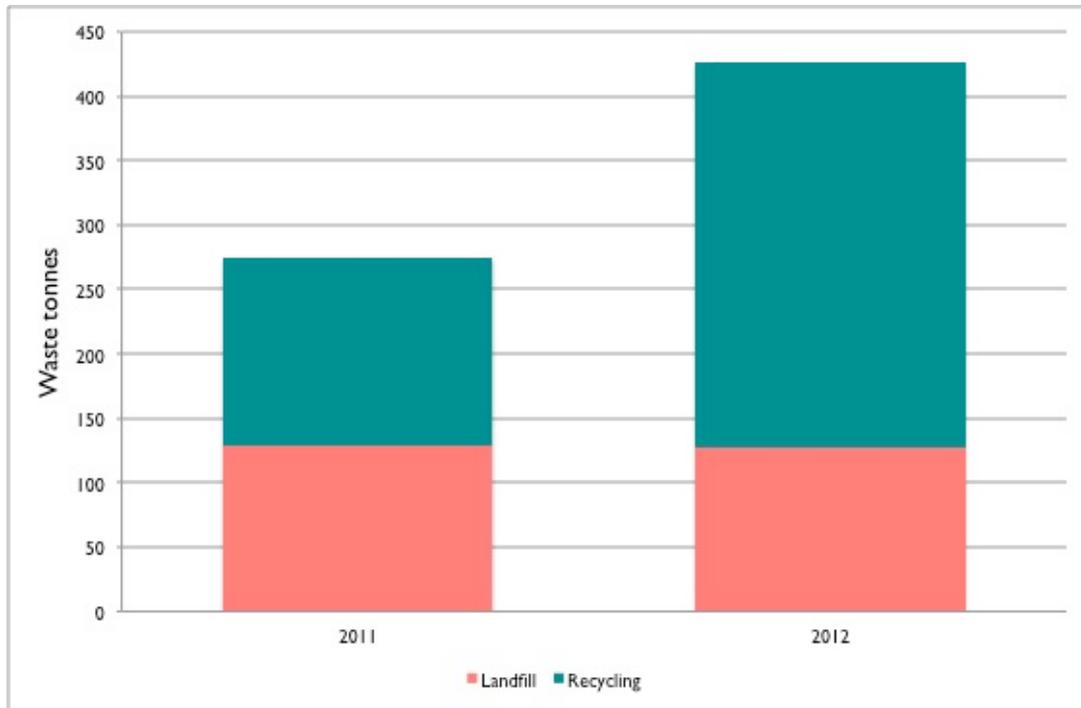
Total landfill and recycled waste tonnage increased by 55% between 2011 and 2012. Waste to landfill stabilised comparing 2011 to 2012 whereas recycling more than doubled. 70% of Glyndebourne’s waste was recycled in 2012 compared to 53% in 2011. Emissions from waste to landfill decreased by 1% comparing 2011 and 2012, as the large increase in waste volume was mostly from waste to recycling, which is zero rated in terms of carbon.

Although Glyndebourne’s gardening team run a green waste scheme and compost 70% of all garden waste, no figures were provided.

In 2013 Glyndebourne introduced bins for both general waste and recycling in its common areas throughout the grounds, which it will be monitoring and measuring moving forward. Previously punters had been asked to take waste home with them, however in practice this had not quite worked out with punters either disposing of the waste in the gardens or taking it with them to Lewes train station and disposing of it there. Therefore Glyndebourne

is expecting that this new waste data will impact their total waste figures from 2013 onwards, which are likely to increase.

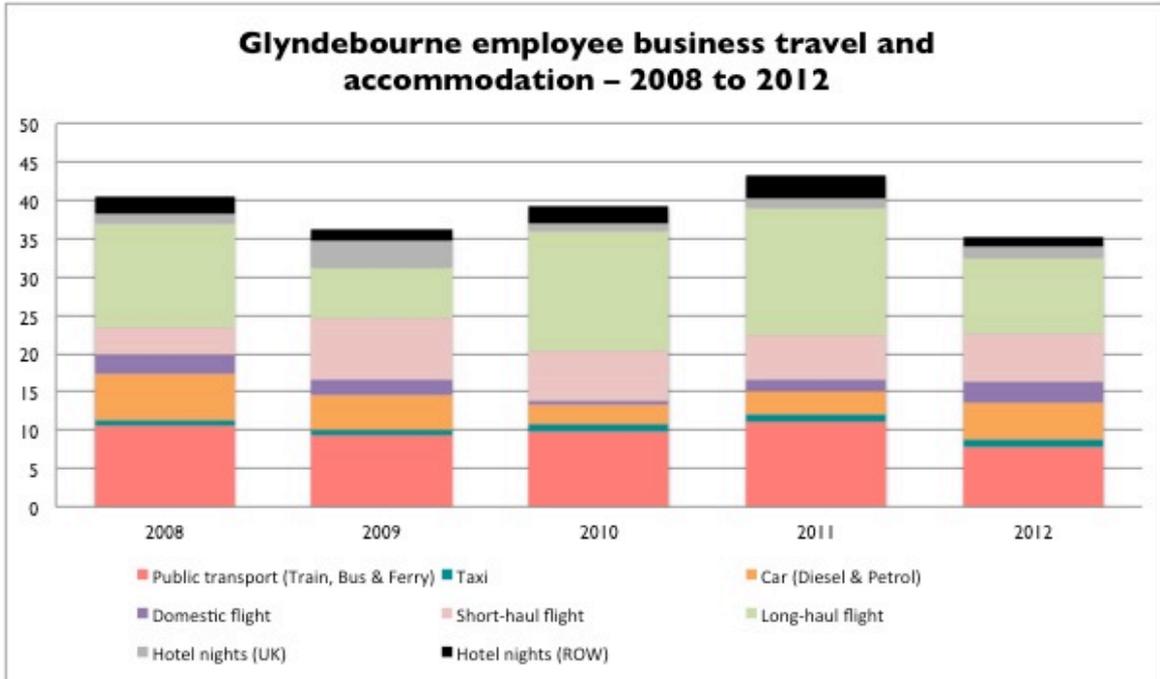
Graph 5 Waste - landfill and recycling – 2011 to 2012



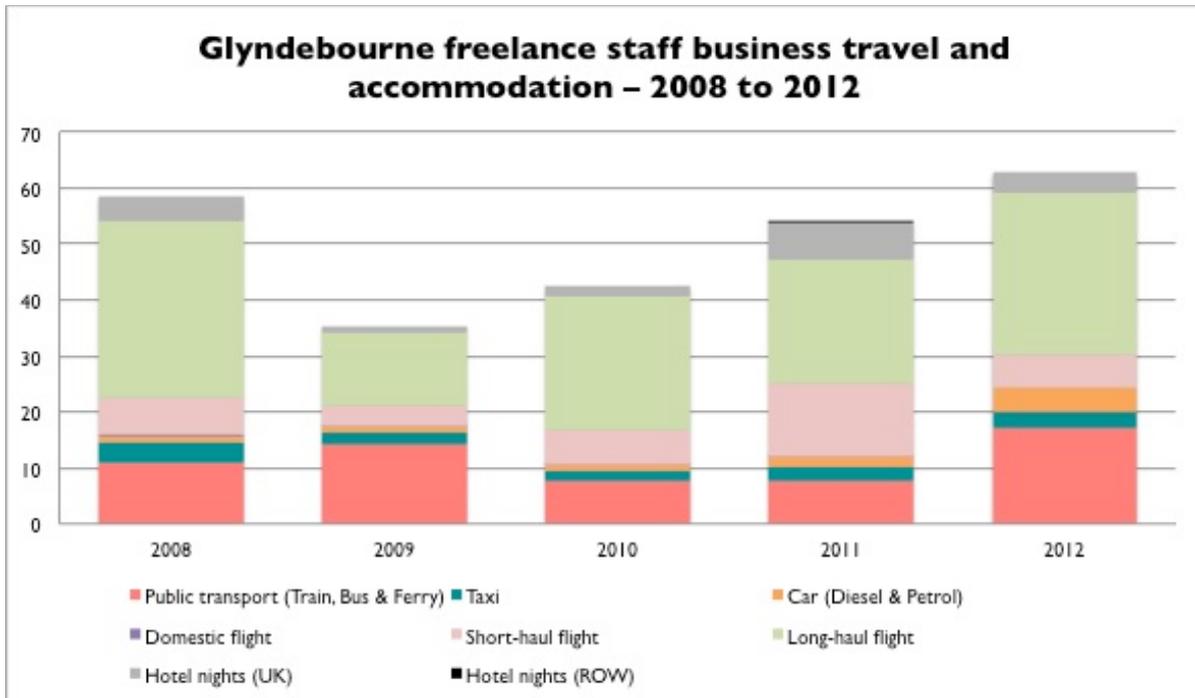
Business travel and accommodation

Emissions from business travel, including accommodation, for employees and freelance staff (such as the production team and artists) increased by 1% between 2011 and 2012. The graph below separates business travel and accommodation for Glyndebourne employees and freelance staff. Flights account for the majority of emissions for both Glyndebourne employees and freelance staff.

Graph 6 Glyndebourne employee business travel and accommodation – 2008 to 2012



Graph 7 Glyndebourne freelance staff business travel and accommodation – 2008 to 2012

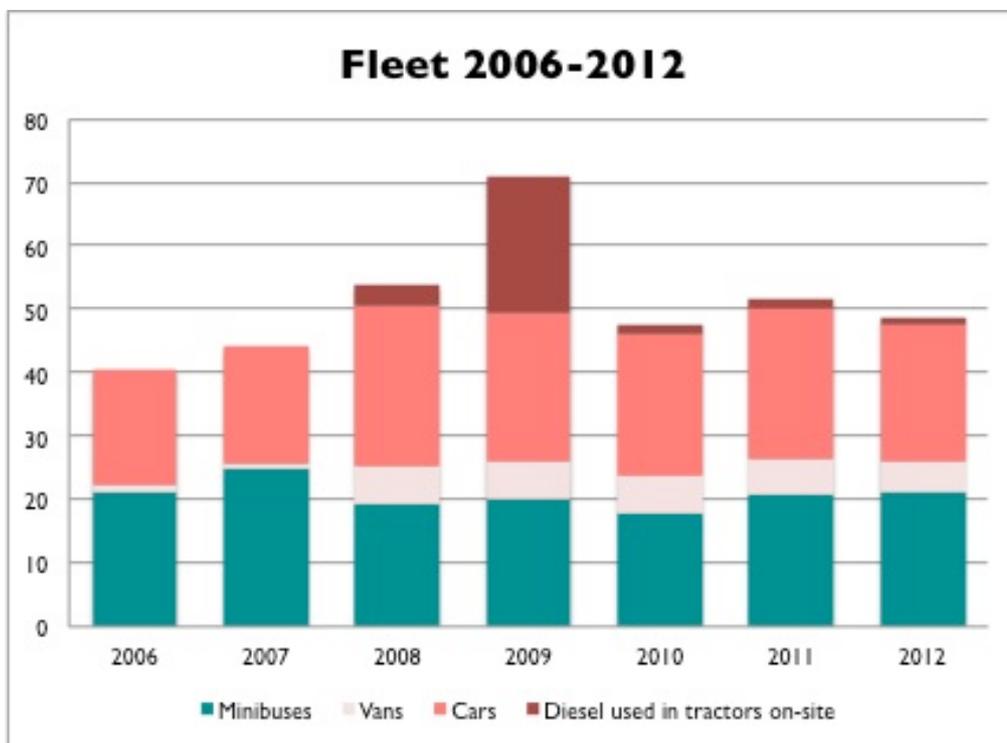


Fleet (including diesel used in tractors on-site)

Fleet travel across the organisation decreased by 5% comparing 2011 to 2012. As the graph below shows, the biggest contributors are minibuses and cars followed by vans. Diesel is

bought every three years, and is used for the tractors on-site. The same usage as for 2010 and 2011 was assumed for 2012. No diesel data was available for 2006 and 2007.

Graph 8 Glyndebourne fleet – 2006 to 2012



Staff commuting

No data was available for staff commuting for 2012 so the 2011 data and assumptions were used and it is not meaningful to compare the two years. Glyndebourne are planning to undertake a new staff commuting survey in 2013 so any data provided on staff commuting for the 2013 audit report will be more accurate.

Deliveries

Deliveries cover road and air freight for the festival and tour and the artist and production team. Comparing 2011 with 2012, a 19% increase in related emissions was recorded.

Tour travel, accommodation and freight

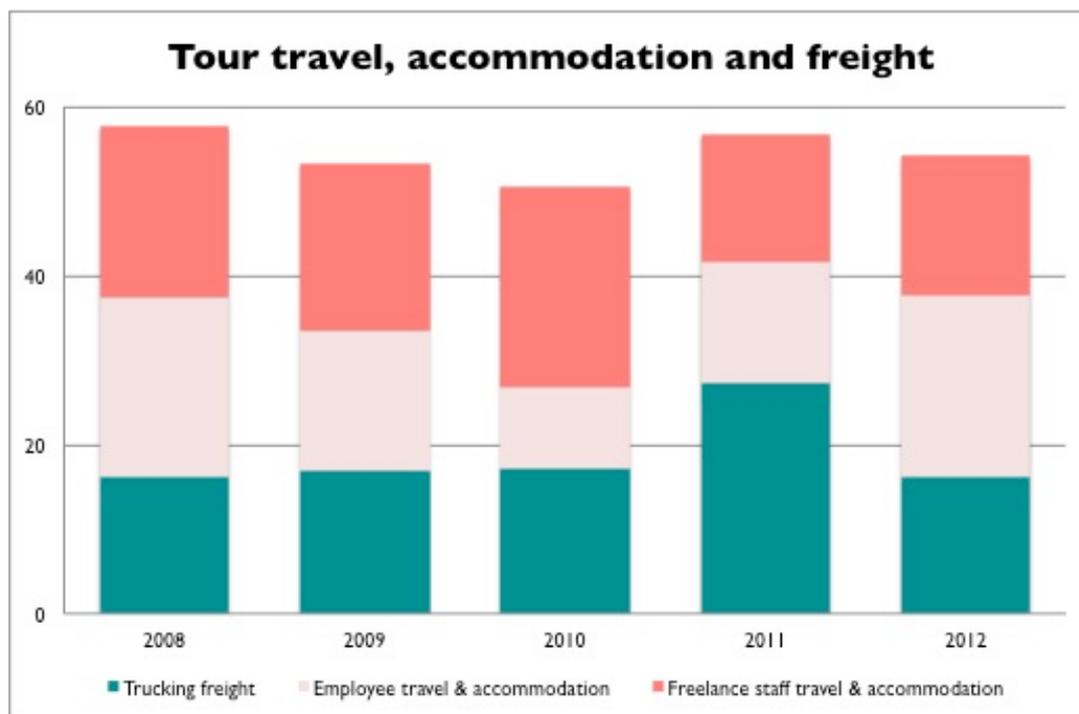
Tour data covers both travel and accommodation for Glyndebourne employees and freelance staff (such as the production team and artists) and trucking freight. All these activities combined accounted for 54 tonnes CO₂e in 2012 across 33 performances taking place outside of Glyndebourne (1.64 tonnes CO₂e per performance), compared with 57 tonnes CO₂e in 2011 (2.10 tonnes CO₂e per performance). In absolute terms touring related emissions decreased by 5% when comparing 2011 to 2012 and per performance emissions decreased by 22% in the same timeframe.

Emissions from tour travel and accommodation increased by 29% between 2011 and 2012, whereas trucking freight emissions decreased by 40%. During the 2012 tour there was an extra week of performances as compared to 2011, but only 2 productions were actually on

tour compared to 3 in 2011. This may have resulted in the increase in emissions from tour travel and accommodation, but a decrease in the related trucking freight emissions.

In the past, tour travel and accommodation generally accounted for most tour related emissions. In 2011 trucking freight generated most tour related emissions. In 2012 employee travel and accommodation accounted the majority of tour related emissions.

Graph 9 Tour travel, accommodation and freight – 2008 to 2012



Audience travel

Only coach data between the local train station and Glyndebourne was provided for 2012. 9% of the audience used the coach in 2012 compared with 7% in 2011. The service has been provided free of charge since 2012. Glyndebourne last provided actual audience travel in 2007, based on an audience travel survey. However since then, the same assumptions have been applied.

Glyndebourne will undertake a Local Economic Impact Assessment in 2013 which will include audience travel. Therefore Glyndebourne is expecting better quality audience travel data for 2013.

Table 4 2007 audience travel assumptions reapplied in 2011 and 2012

Origin	% of audience	Return mileage
London	24	120
Local (Hampshire, E&W Sussex, Surrey, Kent)	27	100
Rest of UK	44	200
Overseas	5	50

Paper

2012 is the first year Glyndebourne provided data relating to paper use in the office, so no comparisons were possible with 2011. Paper covers office paper only and excludes Glyndebourne publications.

2.2 Recommendations

Summary recommendations

To maintain 3 stars for Understanding Glyndebourne should continue reporting on at least six emissions sources, covering energy use, water use, sewerage, waste, business travel and fleet, and at least one other source, such as touring. While Glyndebourne now has a significant amount of data on its performance and emissions, there is still scope to improve the quality of some data e.g. waste, audience travel, sewerage, and undertake a more in depth analysis of what lies behind this information and data to understand the reasons for increases and decreases in volumes and emissions, track progress and inform its decision-making. Glyndebourne should improve its audience travel data by collecting data via the Local Economic Impact Assessment it is conducting in 2013. A staff commuting survey in 2013 will also improve its dataset and understanding of the related impacts. Glyndebourne may also wish to further expand the scope of its carbon audit to cover other sources of emissions (e.g. production materials). However it would currently be more advisable for Glyndebourne to focus on consistency and comparability of the emissions sources it is already covering before expanding the scope further.

Glyndebourne has provided data to Julie's Bicycle for seven consecutive years (2006 to 2012) covering energy use, water use, waste, business travel, fleet, deliveries, touring travel and freight, staff commuting, audience travel and paper use. Glyndebourne provided data on office paper use for 2012 only.

Glyndebourne now has a significant amount of information and data on its impacts and sources of emissions. One of the key issues for Glyndebourne going forward will be using this information and data, to help it better track and understand performance and emissions and identify where it is doing well and why and where it needs to do better and why.

Julie's Bicycle would further recommend that Glyndebourne:

- Improve energy monitoring to better understand how much electricity and gas is being used, when, where and for what, to inform its understanding of changes in energy use and identification of energy-saving measures;
- Provide support and training for relevant Glyndebourne employees and contract staff on energy, water and waste monitoring and measurement and on general behavioural change;
- Undertake waste audits to better understand the amount of waste generated and recycled, and identify options for reducing waste to landfill, increasing recycling and reuse, and potentially introduce new recycling or reuse initiatives;
- Include green waste composting in its overall waste data, to provide a more complete picture;

- Undertake more detailed monitoring of its water use, in order to better understand how much water is being used when, where and for what, so that it can better understand changes in water use and track how future actions to reduce water use affect water use;
- Improve the quality of data on sewerage and deliveries;
- Collect actual audience travel data via the 2013 Local Economic Impact Assessment;
- Conduct a staff commuting survey in 2013.

Glyndebourne is also planning to collect the following data for 2013:

- Solid sewerage and relevant transportation to take it off site;
- Tonnage of steel used in its productions;
- Freight data on artists' instruments to and from the grounds.

3. Improvement

3.1 Assessment

Improvement	Star rating
Environmental / sustainability improvement strategy or action plan in place AND Reduction of at least 6% in annual relative GHG emissions (covering as a minimum emissions related to energy use, water use, sewerage, waste and business travel) AND Comparison to Julie's Bicycle benchmarks as they emerge	

Summary of your assessment

Glyndebourne has an environmental strategy and targets in place, and has reduced its emissions from energy, water, sewerage, waste, business travel, accommodation and fleet (including diesel used in tractors on-site) by 55% per performance comparing 2011 with 2012. In order to achieve 3 stars an organisation must demonstrate at least a 6% reduction in annual relative GHG emissions but also have met the criteria for 2 stars i.e. which include a reduction of at least 2.5% in annual relative energy use (kWh) per performance from the previous year. In this case Glyndebourne's energy use (kWh) per performance has increased by 13%, meaning that the 2 stars criteria have not been fully met. However in light of the overwhelming reduction in emissions per performance, which exceed the 3 stars criteria, an exception has been made. As such Glyndebourne has been awarded 3 stars Industry Green for Improvement.

3.1.1 Data analysis

Table 5 Relative emissions and consumption, per performance – 2008 to 2012

Sources of emissions	2008	2009	2010	2011	2012
	Tonnes CO ₂ e per performance				
Energy (electricity and gas)	14.98	14.78	14.63	12.06	4.34
Water use (+sewerage)	0.23	0.17	0.21	0.14	0.16

Waste to landfill	0.12	0.14	0.38	0.40	0.41
Business travel (incl. accommodation)	1.01	0.74	0.80	1.06	1.08
Fleet (incl. diesel used in tractors on-site)	0.55	0.73	0.47	0.56	0.54
Total:	16.89	16.56	16.49	14.23	6.51
Litres of water per performance					
Water (excluding sewerage) per performance: litres	214,969	163,959	200,245	128,946	153,846
Kg of waste per performance					
Waste to landfill and recycling per performance: tonnes	0.4	0.5	1.3	3.0	4.7

Table 6 Emissions assessed to determine Improvement

	2006	2007	2008	2009	2010	2011	2012	2011 to 2012	2006 to 2012
Absolute emissions: (electricity, gas, water, sewerage, waste, business travel and fleet)	1,550 tCO ₂ e	1,660 tCO ₂ e	1,655 tCO ₂ e	1,606 tCO ₂ e	1,682 tCO ₂ e	1,309 tCO ₂ e	593 tCO ₂ e	-55%	-62%
Emissions per performance: (electricity, gas, water, sewerage, waste, business travel and fleet)	16.5 tCO ₂ e	17.5 tCO ₂ e	16.9 tCO ₂ e	16.6 tCO ₂ e	16.5 tCO ₂ e	14.2 tCO ₂ e	6.5 tCO ₂ e	-54%	-61%
Absolute energy use: (electricity & non weather-normalised gas)	3,928,173 kWh	3,971,861 kWh	4,071,931 kWh	3,893,572 kWh	4,317,679 kWh	2,882,694 kWh	3,251,826 kWh	+3%	-17%
Energy use per performance: (electricity & non weather-normalised gas)	43,167 kWh	43,172 kWh	39,921 kWh	40,140 kWh	44,058 kWh	30,344 kWh	34,594 kWh	+4%	-20%

Glyndebourne's improvement was assessed on the basis of its relative emissions per performance (from electricity, gas, water, sewerage, waste, business travel and fleet and its energy use per performance (electricity and non weather-normalised gas) between 2011 and 2012. Emissions per performance decreased by 54% between 2011 and 2012, as the majority of Glyndebourne's electricity demand is now being met by its on-site wind turbine. However energy use (kWh) per performance increased by 14% over the same time.

In order to achieve 3 stars an organisation must demonstrate at least a 6% reduction in annual relative GHG emissions but also have met the criteria for 2 stars, i.e. a reduction of at least 2.5% in annual relative energy use (kWh) per performance from the previous year. In this case Glyndebourne's energy use (kWh) per performance increased by 14%, meaning that the 2 stars criteria have not been fully met. However in light of the overwhelming reduction in emissions per performance, which exceed the 3 stars criteria, an exception has been made.

Comparing 2011 and 2012:

- Absolute emissions from energy, water, sewerage, waste, business travel and fleet decreased by 55% between 2011 and 2012, from 1,309 to 593 tonnes CO₂e. The remarkable decrease is due to Glyndebourne deriving 92% of its electricity demand from its on-site wind turbine as opposed to the grid.
- Glyndebourne's energy use (kWh) from electricity and non-weather normalised gas increased by 13%, with a 3% increase in electricity use and a 25% increase in non-weather-normalised gas use. The resulting energy use emissions from both electricity and non-normalised gas use combined decreased by 62%. Per performance energy use increased by 14% and emissions increased by 9%.
- Water use (including sewerage) increased by 18%, as did emissions from water use.
- Total waste tonnage (landfill and recycling) increased by 55%, with emissions from waste to landfill however decreasing by 1%, as the majority of tonnage was recycled which is zero-rated in terms of carbon. Glyndebourne's landfill to recycling ratio improved from 47:53 in 2011 to 30:70 in 2012.
- Emissions from business travel and accommodation increased by 1% between 2011 and 2012.
- Fleet emissions, including tractor diesel use, decreased by 5% between 2011 and 2012.
- Emissions from deliveries increased by 19% when comparing 2011 to 2012.
- Touring related emissions from travel, accommodation and freight decreased by 5% between 2011 and 2012 comparing 2011 to 2012. Emissions from touring travel and accommodation increased by 29%, whereas trucking freight emissions however decreased by 40%.

It was not possible to compare emissions between 2011 and 2012 for:

- Sewerage, as there is no raw data on wastewater and solid waste from sanitation facilities and volumes are estimated to be the same as for water use;
- Staff commuting, as no data was provided for 2012 and the same data and assumptions were used as for 2011;
- Audience travel, as 2012 data was only provided on coach journeys between the local train station and Glyndebourne, and the same assumptions as for 2011 were used.
- Paper, as data was only provided for 2012;

3.1.2 Benchmark analysis

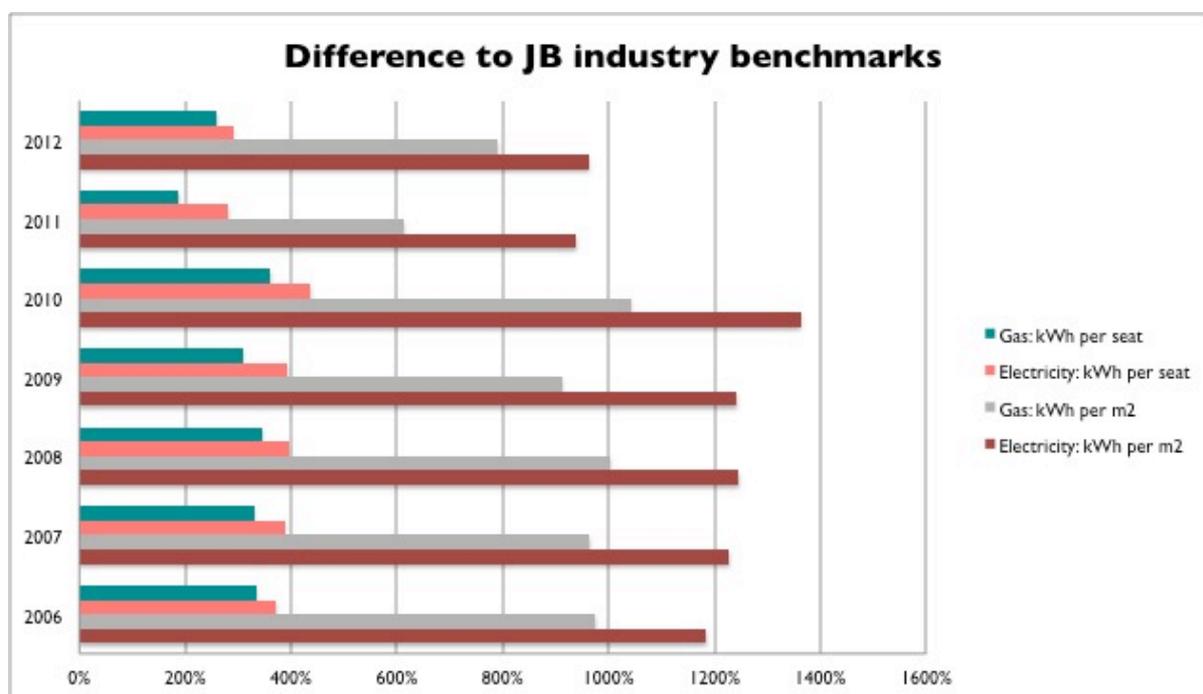
The Julie's Bicycle sector benchmarks have been developed to enable venues and cultural buildings to compare themselves against each other and against the industry average. The benchmark figures are based on venues and cultural buildings from all sectors and of varying scales (40 to 16,000 seats) and are shown below in Table 7, providing a comparison with Glyndebourne figures.

Table 7 Sector comparison

	Julie's Bicycle Sector Benchmark	Glyndebourne						
		2006	2007	2008	2009	2010	2011	2012
Electricity per seat: kWh	320	1,510	1,561	1,582	1,577	1,719	1,221	1,249
Gas per seat: kWh	370	1,608	1,592	1,650	1,513	1,708	1,067	1,332
Electricity per m ² : kWh	110	1,413	1,461	1,481	1,476	1,609	1,143	1,169
Gas per m ² : kWh	140	1,505	1,490	1,544	1,416	1,599	999	1,247

Glyndebourne uses significantly more electricity and gas (kWh) per seat and per m² compared with the benchmark. It is worth noting that the per seat metric only takes audience numbers and capacity into account and does not account for other visitors. Given Glyndebourne's size and its status as an international cultural institution these metrics may be less useful as a comparison for Glyndebourne. Furthermore Julie's Bicycle has increasingly been finding through the Industry Green certification process that the per seat metric is not as representative of the energy consumption of a venue or cultural building as initially thought but that the per m² metric seems to better represent energy consumption for venues of varying scales.

Graph 10 Sector comparison - % difference



Graph 11 Sector comparison - kWh per seat



Graph 12 Sector comparison - kWh per m²



3.1.3 Improvement strategy/action plan

Glyndebourne's environmental objectives and priorities are outlined in its environmental policy. It is accompanied by an environmental strategy outlining how its commitments will be met and identifying priorities for 2013.

Key initiatives in 2012

- Feasibility studies on the use of other low and zero carbon on-site energy sources via biomass boilers and geothermal heating, although the studies done have shown that these measures are not economically feasible;
- Adjusting the air conditioning system to make it more energy efficient;
- Identifying and implementing energy reduction measures such as replacing the house lights in the auditorium with LEDs and introducing timers for lights;
- Using only Forestry Stewardship Council (FSC) certified paper and increasing the use of recycled paper;
- Recycling decommissioned scenery, either internally or through companies specialising in distributing unwanted props and scenery to other theatres;
- 90% of compost used in the gardens was peat free;
- Composting 70% of garden waste;
- Adjusting toilet flushing to minimise water use;
- Implementing an online booking system for the audience for coaches and offering more parking for coaches near the new entrance point;
- Increasing awareness on environmental sustainability amongst staff using the 2011 Julie's Bicycle IG/carbon audit report;
- Establishing environmental criteria as part of the procurement process;
- Using the wind turbine and other education projects to creatively engage the public on environmental sustainability.

Glyndebourne has looked into food waste recycling, however there is a lack of facilities within a reasonable distance and the cost of using recycling facilities further away is prohibitive.

Key next steps

- Installing low energy lighting and high efficiency gas fired condensing boilers;
- Continuing to track carbon emissions and publicly disclose results;
- Making lighting and equipment 'switch-off' compulsory when not in use during the evening, and involving security staff in monitoring switch-offs at night.
- Reviewing waste management with a third party advisor;
- Introducing waste and recycling facilities for audience members (in the past audience was encouraged to take their waste away with them);
- Continuing environmental awareness-raising with staff;
- Nominating 'green ambassadors';
- Introducing further incentives for shared driving and use of public transport;
- Introducing stricter environmental criteria in procurement;
- Introducing double-sided printing;
- Looking into water saving toilet flushing devices and rainwater harvesting.

3.2 Recommendations

Summary recommendations

To achieve 3 stars an organisation must demonstrate both a reduction of at least 6% in its relative emissions (CO₂e) covering as a minimum energy use, water, sewerage, waste and business travel and a reduction of at least 2.5% in annual relative energy use (kWh) per performance from the previous year. Glyndebourne has reduced its relative emissions i.e. emissions from energy, water, sewerage, waste, business travel and fleet per performance by 54% comparing 2011 with 2012, an exceptional achievement, due mainly to the fact that it is now sourcing most of its electricity needs via its on-site wind turbine. However its energy use (kWh) per performance has increased by 14%. However in light of the overwhelming reduction in emissions per performance, which exceed the 3 stars criteria, an exception has been made and Glyndebourne has been awarded 3 stars for Improvement. To maintain 3 stars Glyndebourne must continue reducing its relative emissions per performance but also focus efforts on reducing total energy usage (kWh) per performance. It must also continue implementing and updating its environmental strategy and actions. The key areas for Glyndebourne to focus on to achieve reductions in its emissions are energy use and business travel.

Glyndebourne has achieved a remarkable 54% reduction in its emissions per performance from energy, water, sewerage, waste, business travel and fleet, largely due to the fact that 92% of its electricity demand for 2012 was met by the wind turbine. However Glyndebourne's energy usage in kWh increased by 14% per performance in the same timeframe. This suggests the need for Glyndebourne to focus on reducing in particular its electricity and gas usage and develop a more in depth understanding of energy use, changes which occur and the reasons behind this, in order to identify priorities and more targeted actions for further improvement and emissions reductions.

Glyndebourne is now sourcing 92% of its electricity demand via its on-site wind turbine. This has led to a major reduction in both its energy use emissions and overall emissions per performance. The key issues for Glyndebourne to focus on in the future are understanding and reducing energy use, electricity and in particular gas, which together account for nearly 70% of its carbon footprint (from energy, water, sewerage, waste, business travel and fleet). Improving its understanding of building energy use - how much is being used, when, where and for what, e.g. lighting, cooling, heating, IT, FOH, production - would not only enable Glyndebourne to better identify priorities for taking action but would also enable it to better monitor the results of the actions it takes in terms of reducing impacts and emissions.

Glyndebourne's 'Blowing in the wind: the story of a wind turbine' article in the programme book from 2012 states a long-term goal of achieving carbon neutral operations. This is not an accurate reflection of Glyndebourne's goal, as carbon neutral is a very specific term, which means that an organisation commits to reducing carbon where possible and offsetting unavoidable emissions. For future reference, it would be better to avoid the term 'carbon neutral' and alternatively refer to a goal of minimising its carbon footprint, and seeking to use zero or low-carbon energy sources where possible.

Julie’s Bicycle would further recommend that Glyndebourne:

- Set specific targets for reducing total waste and avoiding waste to landfill, following a waste audit to better understand building, gardens, audience and production waste;
- Work with its catering contractor and existing or potential waste service providers to explore the best environmental solutions for the type of packaging currently being used by the catering contractor and to introduce food waste recycling;
- Improve its dataset by monitoring and measuring audience travel and using this information to identify options for reducing audience travel emissions.

Appendix I provides a range of tips on possible environmental improvement actions, based on Julie’s Bicycle experience in working with hundreds of arts and cultural organisations, as well as links to further resources and guidance, which can help in identifying and implementing environmental improvements.

4. Communication

4.1 Assessment

Communication	Star rating
<p>Communicating environmental impacts and improvements with directors and staff AND at least two of the following: - supply chain organisations; incoming artists; audience INCLUDING Exceptional communication with at least one of the following: directors and staff; supply chain organisations; incoming artists; audience AND Exceptional communication of your Industry Green report with at least one of the following: directors and staff; supply chain organisations; incoming artists; audience.</p>	

Summary of your assessment
 Glyndebourne has demonstrated exceptional communication on its environmental initiatives with staff, senior management, staff, supply chain and audience. It has also communicated its most recent Industry Green/carbon audit report (2011) with senior management, staff, supply chain and audience. As such Glyndebourne has been awarded 3 stars Industry Green for Communication.

4.1.1 Current communications

Every opportunity is taken to communicate Glyndebourne’s commitment to improving its environmental performance. Staff are kept up to date on environmental initiatives via staff and brand champion meetings, and new staff are informed of Glyndebourne’s initiatives and how they can help via the Staff Handbook.

The Festival Programme brochure provides audience with information on Glyndebourne’s environmental initiatives, news, objectives and targets and mentions the most recent Industry Green star rating. The website is also used to provide regular environmental messaging to all stakeholders. Dedicated pages outline Glyndebourne’s environmental commitments,

achievements and aims, and provide links to its most recent environmental policy and Industry Green/carbon audit report.

Targeted emails and press are used to communicate on environmental sustainability. Information on Glyndebourne's selected environmental initiatives is provided in its Annual Report. Glyndebourne also delivers a year round educational programme, which includes environmental topics. The 2011 Industry Green/carbon audit report was presented at the Environmental Champions Committee and used as a key input for developing Glyndebourne's environmental strategy.

4.1.2 Future communications plans

Glyndebourne is working on developing both its internal and external environmental communications. Initiatives being introduced include:

- Regular, routine communications with environmental updates in the General Director's newsletter, and the Executive Chairman's regular updates;
- Developing environmental messaging for all core audiences;
- Introducing specific environmental messaging in emails pre and post-festival, in the Festival Programme and ticket wallet for 2014 (e.g. don't print bus ticket receipts, here's how to recycle, etc.);
- Using social media to share environmental messages with audience;
- Running a workshop to demonstrate the importance of environmental action to staff;
- Introducing a dedicated environmental notice board and / or intranet section;
- Holding an all-staff meeting on the environmental strategy, providing an update on results to date, explain Glyndebourne's environmental goals and launch the new 'Action 'Group';
- Adding the environmental policy to the new staff handbook;
- Adding environmental information to the weekly call sheet;
- Including the environmental policy and individual responsibilities in staff inductions;
- Celebrating environmental successes internally and externally;
- Including environmental signage requirements as part of annual on-site signage review;
- Sharing results of on-going environmental impact studies with staff, audiences and media;
- Using a creative art installation to educate and inform audience members about recycling.

4.2 Recommendations

Summary recommendations

To maintain 3 stars for Communication Glyndebourne must continue to demonstrate exceptional communication of its environmental initiatives and impacts with senior management and staff and with at least two of the following: supply chain organisations, incoming artists or audience. Glyndebourne must also continue communicating its most recent Industry Green/carbon audit report with its directors and staff and at least two of the following: supply chain organisations, incoming artists or audience.

To maintain 3 stars for Communication Glyndebourne must continue its work to communicate its environmental initiatives and impacts with senior management and staff and with at least two of the following: supply chain organisations, incoming artists or audience. It must also continue communicating its most recent Industry Green/carbon audit report with its directors and staff and at least two of the following: supply chain organisations, incoming artists or audience.

Julie's Bicycle would further recommend that Glyndebourne improve its communications with its artists regarding their impacts and how they can help manage and reduce them, and explore options for engaging with its sponsors on sustainability and potentially also identifying options for co-operation on sustainability.

3. Promoting your IG certification

Glyndebourne has been awarded the IG mark (3 stars) based on an assessment of its approach to managing and reducing its carbon and environmental impacts during 2012 and developments in its emissions between 2011 and 2012. It may use the IG mark in its communications for up to twelve months or until the current certification results are superseded by the 2013 certification. The IG mark logo files and certificate are provided alongside this report.

Industry Green certification provides a powerful tool for communicating your commitment, achievements and progress to your stakeholders, such as staff, artists, audiences, suppliers, funders, donors and local community.

Julie's Bicycle recommends the following for communicating Industry Green certification, acknowledging Glyndebourne's internal and external environmental communications to date:

- Include the IG mark on marketing and communications tools and materials, e.g. website, event programmes, pre-performance emails, print marketing materials, environmental operations manual, procurement policy, etc.
- Upload the IG mark logo onto the website and social media;
- Display the Industry Green certificate in a public place, e.g. in the building reception, throughout the site.

Julie's Bicycle recommends the following text for use in communications relating to Industry Green and the IG mark:

“Glyndebourne has achieved Industry Green certification in 2012 and is awarded 3 stars in recognition of its commitment to managing and improving its environmental performance and reducing its carbon emissions.

Industry Green certification is developed by Julie's Bicycle for music, theatre and the wider creative industries. By achieving Industry Green certification Glyndebourne is joining the UK creative industries' response to climate change and environmental sustainability.

For more information please download the Industry Green report provided here [PROVIDE DOWNLOAD LINK]. The assessment of Glyndebourne's carbon emissions covered data from 2011 and 2012 and includes emissions from energy, water, sewerage, waste, business travel, and accommodation, fleet including diesel used in tractors on-site, deliveries, staff commuting, audience travel, and touring travel, accommodation and freight. This assessment excludes the emissions deriving from production materials, concessions and merchandise.

For more information please contact [ORGANISATION NAME contact].

For more information about Industry Green and Julie's Bicycle please visit www.juliesbicycle.com”

Please contact Julie's Bicycle if you wish to discuss how to use your IG mark, Industry Green report or Industry Green certificate to promote your achievements.

4. Future IG certification

The timeline for reporting for the next IG assessment and certification will be:

- April to May 2014 – for Glyndebourne to submit the data, evidence and application form for 2013;
- June to July 2014 – for Julie’s Bicycle to deliver the 2013 Industry Green report including progress on reductions and Glyndebourne’s Industry Green status for 2012/13.

If data and evidence for 2013 is not submitted by May 2014 (i.e. 5 months following the end of the 2014 calendar year), Julie’s Bicycle will be unable to conduct a full Industry Green certification for Glyndebourne for that accounting period. This is order to ensure that the Industry Green report and its recommendations are as useful and applicable as possible for the organisation and its business cycle, with regards to planning and reporting. As discussed keeping to the time plan is crucial to ensure that the results provided can be useful for informing your action planning, target-setting etc.

5. Background on Industry Green

5.1 Legislation and science

Climate change is the defining environmental issue for the 21st Century. It will require a radical transformation of society's relationship to energy use and resource consumption. The best estimates of action needed to prevent catastrophic climate change require that the UK's CO₂ emissions – the principle greenhouse gas (GHG) – must be reduced by 80-90% by 2030; these emissions are mainly generated by the combustion of fossil fuels (Climate Safety, Public Interest Research Centre, 2008)

The United Kingdom has committed to legally binding reduction targets through its Climate Change Act. The UK will reduce emissions by at least 34% by 2020 and 80% by 2050 from 1990 levels. Transforming to a low carbon society will involve:

- Energy conservation and efficiency;
- Switching to renewable/non fossil fuel based energy sources;
- Embracing innovative, low carbon technologies;
- Regulatory and market instruments.

Emerging international and national legislation is clearly signaling a global policy commitment to shift energy use so that citizens from all countries understand the environmental and social costs of GHG emissions. This in itself, however, is unlikely to be radical or fast enough to deliver the scale of emissions reductions needed. Progressive companies are already acknowledging this by taking climate mitigation actions unilaterally and voluntarily.

5.2 Industry Green certification

Industry Green (IG) certification has been developed by Julie's Bicycle for music, theatre and the wider creative industries to recognise commitment and achievement in managing, reducing and improving carbon and environmental impacts.

Certification using the Industry Green Framework means using a system designed specifically for music, theatre and the wider creative industries. This system will record your actions relating to GHG emissions Commitment, Understanding, Improvement and Communication. This results in a transparent assessment, enabling comparison with other organisations.

Complying with the requirements for Industry Green certification demonstrates your commitment and achievements, provides recommendations for next steps, can save money and reduce the risk of increased future costs, while protecting company reputation and helping to attract and retain staff and customers.

By working with Julie's Bicycle you also join an industry collaboration that is catalysing a sector-wide strategic response. Julie's Bicycle is working with the creative industries to identify combined actions that will reduce GHG emissions in the quickest and most cost-effective way.

References

Bottrill, C., Lye, G., Boykoff, M., and Liverman, D. (2008). Julie's Bicycle First Step Report: UK Music Industry Greenhouse Gas Emissions for 2007. Environmental Change Institute, Oxford University. See www.juliesbicycle.com/publications

Bottrill, C., Papageorgiou, S. and Jones, M (2009). Jam Packed: Part I: Audience Travel Emissions from Festivals. Julie's Bicycle, London. See www.juliesbicycle.com/publications

Bottrill, C., Heathfield, H. (2012). Benchmarking energy use in performing arts buildings. Julie's Bicycle, London. See <http://www.cibse.org/content/cibsesymposium2012/Paper039.pdf>

Department of Environment, Food and Rural Affairs (DEFRA) (2009) Guidance on how to measure and report your greenhouse gas emissions

Guidelines to DEFRA/DECC's GHG conversion factors for company reporting, updated annually, prepared by AEA for the Department of Energy and Climate change and the Department of Environment, Food and Rural Affairs

Intergovernmental Panel on Climate Change (IPCC) (2007). Synthesis Report. Intergovernmental Panel on Climate Change. www.ipcc.ch

Public Interest Research Council (2008). Climate Safety. See climatesafety.org

World Business Council for Sustainable Development (WBCSD) (2004). Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard – Revised Edition. World Business Council for Sustainable Development, Geneva and World Resources Institute, Washington.

Appendix I: Improvement Tips and Further Resources

Buildings

(i) Heating, cooling and ventilation

- Develop understanding of electricity and gas use by area and end use (e.g. lighting, air-conditioning, heating, hot water, IT) to better identify options for efficiency.
- Reduce excessive heating and cooling by relaxing temperature controls for a wider dead-band (i.e. 18-24°C) and setting fan speeds below 80%.
- Check zonal control and timers are set correctly.
- Replace air conditioning filters regularly and use energy efficient filters.

(ii) Lighting

- Switch to energy efficient light bulbs and LED lighting.
- Install daylight and occupancy sensors or timers on lighting.
- Reduce exterior lighting and consider switching off during the day.

(iii) Equipment

- Switch to rechargeable batteries.
- Turn off appliances whenever you can, especially fridges.

(iv) Explore alternative energy sources

- Consider options for on-site renewable or low-carbon energy installations
- Explore options for linking with existing district or community renewable or low-carbon energy schemes, if relevant.

(v) Reduce waste, reuse and recycle

- Focus efforts on monitoring and measuring waste and introduce targets for reducing the volume of waste and for increasing recycling e.g. by increasing recycling skips on site and reducing general waste skips on site.
- Introduce composting of food waste.
- Work with contractors to audit waste, including the quantities being recycled, composted and incinerated, if applicable.
- Require caterers to only use reusable, recyclable or compostable supplies.
- Work actively with contractors such as catering and cleaning on identifying and implementing waste prevention and recycling measures

(vi) Reduce water use

- Ensure that all toilets, sinks and urinals are up to date to minimise water use.

Business travel

(i) Reduce travel

- Reduce the use of taxis and cars where possible.
- Actively promote the use of virtual communications e.g. Skype, tele-conferencing, video-conferencing, webinars.
- Allow mobile working arrangements, such as allowing staff to work while on the move and from home, or to work flexible hours.

(ii) Reduce impact of travel

- Encourage switching to rail from air or car.
- Encourage switching to economy from business or first class.

- Encourage switching to public transport from cars.
- Provide season ticket loans to encourage staff to use public transport for meetings.
- Encourage staff to walk.
- Make it easy for staff to cycle by installing secure cycle storage and provide shower facilities.

Reduce impact of freight and touring

- Use a Green Rider for touring productions, with environmental guidelines to host venues and festivals to reduce environmental impacts.
- Opt for less carbon intensive modes of freight, such as sea or rail as opposed to air.
- Embed environmental sustainability into planning early on to allow for touring schedules that follow a logical order across the country and internationally, to minimise need for travel.

Audience travel

- Educate audiences about their own impacts and why they matter.
- Carry out audience travel surveys to find out how they travel, where they come from, why and what might make them travel differently.
- Encourage walking and cycling.
- Use websites and ticketing to offer incentives/rewards to those using lower carbon travel options e.g. public transport, car or lift-sharing, travelling with a full car occupancy.
- Work with travel operators to promote sustainable transport options.

Incoming events and shows

- Share environmental commitments and information with the teams of incoming productions, and encourage them to use the IG Tool for Production; Office; Venue; and/or Touring, if relevant to their activity.
- Work with incoming productions to reduce their environmental impacts and support productions with a demonstrable commitment to sustainability and to the monitoring and reduction of their emissions as much as possible.

Suppliers and procurement

- Choose suppliers and products with strong social and environmental credentials.
- Encourage suppliers to embed environmental considerations into their operational activities e.g. work with caterers to promote food composting, sustainable food sourcing, using filtered water in jugs or glass bottles instead of plastic bottles, etc.
- Consider developing an ethical procurement policy.
- Check out the Food Sustainability Guidelines from Sustain at: <http://www.sustainweb.org>

Awareness-raising and communication

- Create a green team to engage staff and implement environmental policy and actions;
- Initiate staff competitions on environmental issues, to raise awareness and engagement
- Develop staff campaigns such as 'switch off' to reduce impacts.

- Integrate information on your environmental impacts, policy and initiatives into existing communication channels, which work well e.g. social networking sites.
- Exchange environmental experience and learnings with wider networks.

The following guides found on our website (www.juliesbicycle.com) can help you and your supply chain go further towards reducing your impact:

- Audience travel including incentives to promote public and active transport choices: <http://www.juliesbicycle.com/resources/practical-guides/audience-travel>
- Communicating with your audiences: <http://www.juliesbicycle.com/resources/practical-guides/communicating-with-audiences>
- Communicating with your staff: <http://www.juliesbicycle.com/resources/practical-guides/communicating-with-your-staff>
- Communicating with your supply chain: <http://www.juliesbicycle.com/resources/practical-guides/communicating-with-your-supply-chain>
- Production: <http://www.juliesbicycle.com/resources/practical-guides/production>
- Sustainable Merchandise: <http://www.juliesbicycle.com/resources/practical-guides/sustainable-merchandise>
- Sustainable purchasing: <http://www.juliesbicycle.com/resources/practical-guides/sustainable-purchasing>
- Touring: <http://www.juliesbicycle.com/resources/practical-guides/touring>
- Greening your Building: <http://www.juliesbicycle.com/resources/practical-guides/green-your-building>
- Greening your Outdoor Events: <http://www.juliesbicycle.com/resources/practical-guides/outdoor-events>
- A Guide to Future Energy of Cultural Buildings (2012): [Energising Culture](#)
- The Independent Street Arts Network (ISAN) Environmental Sustainability Toolkit for the Outdoor Arts Sector: <http://www.juliesbicycle.com/resources/green-guides/isan-environmental-sustainability-toolkit>
- [Guardian Sustainable Business' Communication Hub](#)
- [Futerra's 10 Tips for Sustainability Communication](#)
- [DEFRA Green Claims Guide](#)

If you are interested in joining the following campaigns (found on our website at: <http://www.juliesbicycle.com/about-jb/campaigns>) please contact us:

- Replacing disposable with rechargeable batteries across the creative industries: [Better Batteries](#)
- Understanding and improving uptake of renewable power use at festivals and events: [Powerful Thinking](#)

Appendix 2: Carbon Audit and IG Methodology

General procedure

The audit methodology used here follows the reporting principles and guidelines within the Greenhouse Gas Protocol published by the World Business Council for Sustainable Development and the World Resources Institute (hereafter referred to as the Protocol). In line with the Protocol, Julie's Bicycle uses the following procedure to undertake a Carbon Audit:

- Establishment of the audit boundaries (including the selection of: greenhouse gases, project boundaries and operational boundaries).
- Collection of client data.
- Calculation of emissions using appropriate conversion factors.
- Analysis of results.
- Determination of suitable recommendations for future action.

The audit procedure and a summary of results are presented in the main text of the report. A detailed description of emissions calculations and associated assumptions are presented in the attached spreadsheet.

Greenhouse gases

A Carbon Audit can include all six greenhouse gases covered by the Kyoto Protocol. The six Kyoto gases are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulphur hexafluoride (SF₆), perfluorocarbons (PFCs) and hydrofluorocarbons (HFCs). The global warming potential (GWP) of each greenhouse gas may be expressed in CO₂ equivalents (see Table I). For those gases with a high global warming potential a relatively small emission can have a considerable impact.

Table 2- I The global warming potential of the Kyoto gases

Greenhouse gas	Global Warming Potential (GWP)*
Carbon dioxide (CO ₂)	1
Methane (CH ₄)	23
Nitrous oxide (N ₂ O)	296
Sulphur hexafluoride (SF ₆)	22200
Perfluorocarbons (PFCs)	4,800 – 9,200
Hydrofluorocarbons (HFCs)	12 - 12,000

*GWP: a gases' relative potential contribution to climate change over a 100 year period, where CO₂ = 1. IPCC (2001).

Given Glyndebourne's activities, the relevant greenhouse gases (GHG) for this Carbon Audit are CO₂, CH₄ and N₂O emissions arising from fuel combustion due to energy use, water use, transport and accommodation, methane emissions from landfill and the embodied carbon of paper usage.

Organisational boundaries

For the purpose of this audit, Glyndebourne set the organisational boundary in consultation with Julie's Bicycle, following the Protocol's control approach for boundary setting. The organisational boundary of the audit covers the operational activities of Glyndebourne from January to September 2012 in their building, the activities relating to the Glyndebourne festival and tour, and the vehicle fleet operated by Glyndebourne. Other on site third parties (such as Mansion House and Leiths) who reimburse Glyndebourne for utilities have not been included.

Operational boundaries

The Protocol provides a three scope reporting framework:

Scope 1 covers direct GHG emissions from sources owned or controlled by the company, in the case of Glyndebourne, this covers emissions from gas boilers and vehicle, and electricity generated by the wind turbine and used by Glyndebourne.

Scope 2 covers indirect GHG emissions from the electricity purchased from the grid and used by Glyndebourne.

Scope 3 covers other indirect GHG emissions, such as employee and self-employed staff business travel (other than in company owned vehicles) for the festival and tour, accommodation, waste disposal, water and sewage use, diesel use, staff commuting, audience travel, deliveries (using non company owned vehicles) and paper use. The Protocol recommends reporting on Scopes 1 and 2 as a minimum. Glyndebourne activities included within the operational boundary are shown in Table 2.

Table 2-2 Glyndebourne emissions scope and totals

Category	Activities	Scope	Emissions tonnes CO ₂ e	
			2011	2012
Energy	Gas consumption	1	309	326
Transport	Vehicle fleet, including diesel used in tractors on-site	1	52	49
Energy	Electricity consumption	2	800.71	92.53
Travel	Employee and freelance staff business travel for the festival and tour including accommodation, deliveries, staff commuting, audience travel, touring freight	3	4,544	4,649
Waste	Waste to landfill and recycling	3	37.3	37.0
Water	Water supply (and sewerage)	3	12	15
Paper	Amount used	3	n/a	0.6
Comparable totals (with paper)			5,756	5,168 5,169

Reporting approach

Julie's Bicycle does not base its carbon audits on direct measurement of emissions, but on data on the source of emissions, e.g. energy used, waste volumes, to which relevant emissions conversion factors are applied, e.g. the amount of CO₂e produced per unit of fuel consumed. Julie's Bicycle's approach is to set out as clearly as possible the basis for

calculating emissions and all the assumptions applied so that the overall results are as transparent as possible and emissions calculations are founded on 'best evidence'. The validity of the calculations depends on the accuracy, relevance and completeness of the data provided by the client. Julie's Bicycle is guided by the precautionary principle. Where there is any doubt over activities undertaken, or where there is a choice of published figures available for calculating greenhouse gas emissions, a conservative 'worst case' scenario is assumed, unless otherwise specified.

Data

Data sources and quality

The collection of the data, upon which the emissions calculations were based, was coordinated by Amsel Von Spreckelsen, Finance Assistant, and Sarah Hopwood, Director of Finance and Resources. The data provided are assumed by Glyndebourne to be representative of performance during 2012. Data was collected for Glyndebourne as outlined above in 'Organisational Boundaries'.

All data is comparable between the years (2008-2012) except for paper, data for which were only provided in 2012. 2006 and 2007 data have been excluded from the comparisons as no degree-day data were available for either year to weather normalise the gas figures, making energy data non-comparable. All estimates and assumptions are outlined here.

Data assumptions

The fundamental assumption underlying the audit is that all data provided by Glyndebourne was accurate. The following additional assumptions were made:

Energy:

Electricity and gas readings for all five years cover just the Glyndebourne building and related activities (and no other buildings or activities taking place on site by third parties such as Leiths and Mansion House). When comparing gas use (i.e. kWh) over the years non-weather normalised gas figures were used to account for real consumption. Non-weather normalised gas figures were also used for comparisons to the Julie's Bicycle sector benchmarks. When calculating carbon emissions from gas use, both absolute and relative, and comparing emissions over time (i.e. tonnes or kg CO₂e) the gas figures used have been weather normalised based on degree-day data to account for outside weather conditions.

The electricity figures provided include the electricity generated by the wind turbine from January 2012 to December 2012. It is worth noting though that accurate meter readings from the wind turbine were only recorded from February 2012 onwards.

Water and sewerage:

Glyndebourne's water is supplied from a natural spring on-site. As Glyndebourne have their own water source on-site, no invoices are available to provide liquid sewerage data, so no data was available for any of the years. The same usage as for water was assumed.

Waste:

The number and size of skips to landfill was provided, and assumptions were made about capacity and load. Appliance removal loads were also provided (for computer monitors, water coolers and a fridge) as well as data on other hazardous waste such as batteries, solvents, pesticides, drum paints and liquids, but these were not included in the carbon analysis as there are no relevant emission conversion factors, and it was assumed they were disposed of in line with the WEEE Directive. The number of cardboard bales sent to recycling in a year were provided, along with the approximate weight of each bale. The total number of shredded paper bags (confidential and otherwise) sent to recycling were also provided, and assumptions were made regarding their weight (i.e. 7 kg per bag).

Fleet:

Data on fleet mileage by transport mode – vans, cars and shuttle bus - was provided for each year, along with diesel usage in tractors on-site. Diesel usage for 2012 was assumed to be the same as for 2011 and 2010 because diesel is bought by Glyndebourne on average every three years and usage is assumed to be the same every year. No diesel data was available for 2006 and 2007.

Business travel (including accommodation):

Data on mileage by transport mode was provided for each year, split by employees and freelance staff (i.e. artists and production team). The number of hotel room nights in the UK and overseas were also provided for each year, split by employees and freelance staff (i.e. artists and production team). It was assumed that there was 1 person per room.

Deliveries:

Data on mileage for deliveries within the UK and overseas relating to Glyndebourne employees working for the festival and the tour were provided for all years. Assumptions were made regarding transport mode (i.e. all UK deliveries were done by road using a truck and all overseas deliveries were done by air, split 50:50 between short haul and long haul) and average weight transported. Data was also provided on transfers between Glyndebourne and the airport. Truck mileage relating to the festival for artists and the production team was also provided as a separate figure for 2011 and 2012 (which may have been incorrectly included in tour trucking freight mileage for the admin team in previous years).

Tour travel, accommodation and freight:

Data on tour mileage by transport mode was provided for each year, split by employees and freelance staff (i.e. artists and production team). The number of hotel room nights in the UK and overseas were also provided for each year, split by employees and self-employed staff (i.e. artists and production team). It was assumed that there was 1 person per room. Trucking freight mileage relating to the tour was also provided.

Staff commuting:

No data was available on staff commuting for 2012 so the 2011 data was used, and adjusted to account for an increased full-time equivalent staff team.

Audience travel:

The only audience travel data available was relating to coach travel between the local train station and Glyndebourne. For the rest of the data the same assumptions as for 2011 were used, based on audience numbers/.

Paper:

Data on the number of sheets, dimensions, weight (gsm), type of paper and methods of waste disposal were provided for the first time in 2012.

Performances:

The total number of performances taking place during the festival was provided for each year. The total number of performances relating to the tour was also provided for 2012.

Emission factors

In order to establish the tonnes of CO₂ equivalent (i.e. CO₂e) emitted from the energy consuming activities default conversion factors were applied (see Table 5 below). These were mostly taken from Guidelines to Defra/DECC's GHG conversion factors for company reporting published by the UK government (Defra and DECC May 2012) and the Protocol. The emission conversion factors for hotel room nights were taken from Defra 2005, IEA 2006 and CIBSE 2004, and for coach from the National Atmospheric Emissions Inventory Vehicle Speed Emissions (02/03).

Table 2-3 Emission factors used for this analysis

Emission source	Conversion Factor	Units	Source
Electricity from grid	1.5326	Kg CO ₂ e per kWh	Defra/Decc May 2012
Electricity from wind turbine	0	Kg CO ₂ e per kWh	Defra/Decc May 2012
Gas	0.20550	Kg CO ₂ e per kWh	Defra/Decc May 2012
Diesel	2.6769	Kg CO ₂ e per litre	Defra/Decc May 2012
Water	0.3441	Kg CO ₂ e per cubic metre	Defra/Decc May 2012
Sewage	0.7085	Kg CO ₂ e per cubic metre	Defra/Decc May 2012
Waste to Landfill	290	Kg CO ₂ e per tonne	Defra/Decc May 2012
Waste to Recycling	0	Kg CO ₂ e per tonne	Julie's Bicycle does not apply the recycling factors from Defra/Decc May 2012 as data splitting recycling into fractions is generally unavailable and factors vary considerably
Business travel & Staff commuting & Audience travel & Accommodation			Defra/Decc May 2012 except for (i) Coach – National Atmospheric Emissions Inventory Vehicle Speed Emissions (02/03) and (ii) the UK and overseas hotel factors - Defra 2005, IEA 2006 and CIBSE 2004.
Average diesel car	0.18702	Kg CO ₂ e per veh km	
Average petrol car	0.20188	Kg CO ₂ e per veh km	
Local bus	0.12380	Kg CO ₂ e per pass km	
Coach	0.05818	Kg CO ₂ e per pass km	
National train	0.11608	Kg CO ₂ e per pass km	
Ferry (average all passengers)	0.6744	Kg CO ₂ e per veh km	
Regular taxi	0.20659	Kg CO ₂ e per veh km	
Domestic flight	0.16685	Kg CO ₂ e per pass km	
Short haul flight (average)	0.09074	Kg CO ₂ e per pass km	
Long haul flight (average)	0.10896	Kg CO ₂ e per pass km	
UK hotels	31.62	Kg CO ₂ e per room per night	
Overseas hotels	32.63	Kg CO ₂ e per room per night	
Fleet			Defra/Decc May 2012
Minibus/Van (up to 3.5 t)	0.24717	Kg CO ₂ e per veh km	
Average diesel car	0.18702	Kg CO ₂ e per veh km	
Average petrol car	0.20188	Kg CO ₂ e per veh km	
Deliveries			Defra/Decc May 2012
Van (up to 3.5 t)	0.24717	Kg CO ₂ e per veh km	
Truck (HGV, UK average 57%)	0.90988	Kg CO ₂ e per veh km	
Motorbike	0.11903	Kg CO ₂ e per veh km	
Short-haul air freight	1.24141	Kg CO ₂ e per tonne.km	
Long-haul air freight	0.64099	Kg CO ₂ e per tonne.km	
Paper			Defra/Decc May 2012
Virgin	950	Kg CO ₂ e per tonne	
Recycled	237	Kg CO ₂ e per tonne	

Appendix 3: Criteria for Industry Green I-3 stars I for Venues and Cultural Buildings

Last updated: 5th November 2012

The following tables cover the criteria and evidence required to reach each star level of Industry Green for Venues and Cultural Buildings. To achieve each star level, the venue or cultural building must provide evidence for:

1. all data entered into the IG Tools (Table 1);
2. its approach to and progress on commitment, understanding, improvement and communication as per the defined criteria (Table 2).

Table 3-1 IG Tool data requirements and evidence required

	Information to be supplied on IG tool	Evidence examples to be sent to Julie's Bicycle
Size	Floor area, capacity, performances, tickets sold	Show diary, floor plans, ticket sale reports
Energy performance	Gas and electricity (in kWh) Oil, diesel, biodiesel (all in litres) Onsite renewables data (in kWh) if relevant	Invoices and metering data
Waste performance	Weight of waste to landfill, recycling and composting (in tonnes)	Waste management invoices or estimates
Water efficiency	Volume of water used and sewerage produced (in m ³)	Invoices
Business travel	Distance travelled by car, taxi, rail and air	Expenses data, travel agent records
Audience travel	Average audience modal split and distance travelled. If data is unavailable, defaults will be applied.	Car parking data, audience travel survey results, ticket geo-data

Table 3-2 Industry Green criteria and evidence required

	COMMITMENT		UNDERSTANDING		IMPROVEMENT		COMMUNICATION	
	Criteria	Evidence examples	Criteria	Evidence examples	Criteria	Evidence examples	Criteria	Evidence examples
I*	Two people responsible for environmental performance - one board member/ director/ senior staff and one at an operational level AND Environmental/ sustainability policy under development	<u>Responsibilities:</u> Meeting minutes, emails, newsletters, organisation charts, environmental team members list or terms of reference <u>evidencing environmental responsibilities</u> <u>Policy:</u> Draft or signed policy Meeting minutes, emails, newsletters <u>evidencing policy communication and distribution (May overlap with communication evidence)</u>	Completion of the Industry Green online venue/cultural building tool with one year's worth of data (the baseline year) and supporting evidence submitted OR Data collection plan and timescale submitted	See Table I. IG Tool data requirements and evidence required OR Data collection plan	Environmental/ sustainability improvement strategy or action plan in place	Improvement strategy or action plan Meeting minutes, emails, newsletters <u>evidencing communication and distribution of improvement strategy or action plan</u> Meeting minutes, emails, photos, posters, contracts, instructions, reports relating to environmental actions, plans or strategy	Communicating environmental impacts and improvements with directors and staff AND Communicating the Industry Green Report with directors and staff Industry Green report communication only necessary for organisations renewing certification	Meeting minutes, emails, website pages, intranet pages, surveys, leaflets, posters, press releases, articles Documents <u>evidencing distribution and communication of the Industry Green report</u> Official responses and examples of feedback (May overlap with commitment evidence)

	COMMITMENT		UNDERSTANDING		IMPROVEMENT		COMMUNICATION	
	COMMITMENT		UNDERSTANDING		IMPROVEMENT		COMMUNICATION	
	Criteria	Evidence examples	Criteria	Evidence examples	Criteria	Evidence examples	Criteria	Evidence examples
2*	Two people responsible for environmental performance - one board member/ director/ senior staff and one at an operational level AND Environmental/ sustainability policy in place AND under regular review AND Gaining commitments to improving environmental performance from at least one of the following: 1. staff 2. supply chain organisations 3. incoming artists	<u>Responsibilities:</u> Meeting minutes, emails, newsletters, organisation charts, environmental team members list or terms of reference evidencing environmental responsibilities <u>Policy:</u> Signed policy and evidence of distribution Meeting minutes, emails, newsletters evidencing policy communication and distribution <u>Engagement:</u> Materials prepared by, for or with staff champions, supply chain organisations or incoming artists (contracts, emails, events, posters etc.) and evidence of feedback (May overlap with communication evidence)	Completion of the Industry Green online venue/cultural building tool with two or more year's worth of data and supporting evidence submitted	See Table 1. IG Tool data requirements and evidence required	Environmental / sustainability improvement strategy or action plan in place AND Reduction of at least 4% in annual relative GHG emissions (covering at least emissions related to energy use, but preferably also to water use, sewerage, waste and business travel) from previous year INCLUDING Reduction of at least 2.5% in annual relative energy use from previous year AND/OR Reduction of at least 4% in annual relative audience travel emissions from previous year AND Comparison to Julie's Bicycle benchmarks as they emerge	Improvement strategy or action plan Meeting minutes, emails, newsletters evidencing communication and distribution of improvement strategy or action plan Meeting minutes, emails, photos, posters, contracts, instructions, reports evidencing environmental actions, plans or strategy IG tool results	Communicating environmental impacts and improvements with directors and staff AND at least two of the following: 4. supply chain organisations 5. incoming artists 6. audience AND Communicating the Industry Green Report with directors and staff AND at least two of the following: 7. supply chain organisations 8. incoming artists 9. audience Industry Green report communication only necessary for organisations renewing certification	Meeting minutes, emails, website pages, intranet pages, surveys, leaflets, posters, press releases, articles Documents evidencing distribution and communication of the Industry Green report Official responses and examples of feedback (May overlap with commitment evidence)

	Criteria	Evidence examples	Criteria	Evidence examples	Criteria	Evidence examples	Criteria	Evidence examples
3*	Two people responsible for environmental performance - one board member/ director/ senior staff and one at an operational level AND Environmental/ sustainability policy in place AND under regular review AND Gaining commitment to improving environmental performance at least one of the following: - staff - supply chain organisations - incoming artists AND the audience OR Gaining exceptional commitments to improving environmental performance from at least one of the following: - staff - supply chain - incoming artists	<u>Responsibilities:</u> Meeting minutes, emails, newsletters, organisation charts, environmental team members list or terms of reference evidencing environmental responsibilities <u>Policy:</u> Signed policy and evidence of distribution Meeting minutes, emails, newsletters evidencing policy communication and distribution <u>Engagement:</u> Materials prepared by, for or with staff champions, supply chain organisations or incoming artists (contracts, emails, events, posters etc.) and evidence of feedback Materials evidencing initiatives to gain commitment from audiences and audience feedback and involvement (May overlap with communication evidence)	Measuring at least six sources of environmental impact – this must include energy use, water use, sewerage, waste and business travel and at least one other source of impact	See Table 1. IG Tool data requirements and evidence required Data on energy use, water use, sewerage, waste and business travel and at least one other source of impact, for example: - audience travel - production - production transport - touring - paper use - merchandise - catering - climate change adaptation	Environmental / sustainability improvement strategy or action plan in place AND Reduction of at least 6% in annual relative GHG emissions (covering as a minimum emissions related to energy use, water use, sewerage, waste and business travel) AND Comparison to Julie's Bicycle benchmarks as they emerge	Improvement strategy or action plan Meeting minutes, emails, newsletters evidencing communication and distribution of improvement strategy or action plan Meeting minutes, emails, photos, posters, contracts, instructions, reports relating to environmental actions, plans or strategy IG tool results	Communicating environmental impacts and improvements with directors and staff AND at least two of the following: - supply chain organisations - incoming artists - audience INCLUDING Exceptional communication with at least one of the following: - directors and staff - supply chain organisations - incoming artists - audience AND Exceptional communication of your Industry Green report with at least one of the following: - directors and staff - supply chain organisations - incoming artists - audience Industry Green report communication only necessary for organisations renewing certification	Meeting minutes, emails, website pages, intranet pages, surveys, leaflets, posters, press releases, articles, social media campaigns, films, interactive events Documents evidencing distribution and communication of the Industry Green report Official responses and examples of feedback (May overlap with commitment evidence)

	COMMITMENT		UNDERSTANDING		IMPROVEMENT		COMMUNICATION	
	Criteria	Evidence examples	Criteria	Evidence examples	Criteria	Evidence examples	Criteria	Evidence examples
Exc epti ons		For organisations with fewer than 10 staff, one person with responsibility will be sufficient, as long as they can demonstrate they have a role both in senior level decisions and in operations.		Incomplete data (for example water or waste missing) can be submitted to gain 1* or 2*, as long as energy data is complete.		Emissions based on default or estimated data, or unverified, poor quality data which Julie's Bicycle assessors deem unreliable are not considered when calculating overall reductions and awarding the Improvement rating. If 2* and 3* criteria for Improvement, Industry Green have already been met, 3* can be awarded for stabilisation of relative emissions. Extenuating circumstances can be taken into account if activities and investment have not resulted in measurable improvements through no fault of the organisation. Such circumstances should be explained, e.g. using the notes on the IG tool. Purchasing green tariff electricity or carbon offsets will not constitute a measurable improvement in emissions, unless there are changes to the regulation of these markets.		None