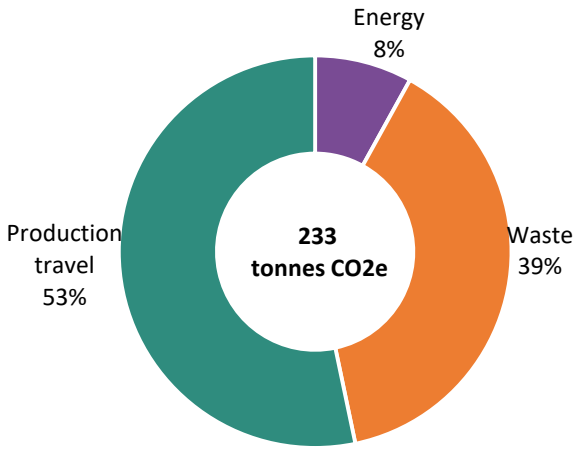
Shambala Festival 2016

creative green

Total score 77/100

42/45 Commitment
11/15 Understanding
24/40 Improvement



Carbon footprint 2016

233 tonnes CO2

Equal to 527 flights from London to New York

Environmental Highlights

Commitment

42/45

- Clear, wide-ranging and regularly updated environmental policy, procurement policy and environmental action plan
- Environmental responsibilities are clearly defined at senior, operational and volunteer levels
- Excellent stakeholder communications and engagement especially with contractors, traders, audience and wider festival industry

Understanding

11/15

- Eight years of data, including detailed breakdown of energy and waste
- Additional data collection for production and audience travel
- Clear link between data and actions for this year and next

Improvement

24/40

- Decrease of 38% in absolute energy emissions
- Decrease of 9% in absolute waste production
- Per audience day energy use, energy emissions and waste production all decreased
- Environmental benefits accrued from the success of Shambala's first meat and fish free year

About Shambala Festival

Shambala Festival is a 4 day summertime camping festival, set in a green-field site in Northamptonshire. It offers a variety of entertainment, including: music, comedy, cabaret, circus, theatre and poetry. In 2016, Shambala hosted 2,365 artists over 25 stages.

About Shambala Festival's Certification

Shambala Festival has been awarded a 4 star Creative Green rating in recognition of its commitment and achievement in embedding environmental sustainability in its operations and activities, following assessment and environmental data analysis by Julie's Bicycle.

This is Shambala Festival's sixth Creative Green certification and the second under the revised methodology and 1-5 star rating introduced in 2016. Under the previous methodology and 1-3 star rating, Shambala Festival achieved the top 3 star rating for four consecutive years.

Full details of the assessment and scoring and data analysis upon which the star rating is based are provided in the completed Creative Green assessment form.

Creative Green was developed by Julie's Bicycle to recognise environmental commitment and achievement in the creative sector – venues, events and offices. On average 35 organisations have been certified each year since it was launched in 2009. Find out who else is currently certified at http://www.juliesbicycle.com/services/industry/whos-certified.

Shambala Festival Scored 42/45 for Commitment

Commitment is assessed based on:

- environmental policy and action plan
- integration of environmental sustainability in broader business mission, strategy or planning
- environmental responsibilities
- environmental procurement and sourcing
- stakeholder communications and engagement

Highlights

- Sourcing green energy from onsite renewables and using waste vegetable oil biodiesel
- Inspiring green messaging taken a step further with first meat and fish free event
- Green teams on campsites encouraging people to recycle
- Wide variety of sustainable travel choices available for audiences
- Engaging communications on website and social media, including the sustainability infographic
- Programming included social, environmental and activism content such as the Garden O' Feeden debate, Fin Fighters, The Milking Parlour, Greenpeace's view of the future and BP or Not BP
- Continued partnership with FRANK water, RAW Foundation and Eighth Plate/FareShare
- Suppliers required to share policy and transport information, adhere to environmental standards, all controlled through the trader bond and trader assessment
- Audience engagement included Shambala Legend competition, Reduce truck, Electric Hotel, and continuing commitment to the 'bring a bottle' campaign, recycling bonds and exchanges
- Knowledge sharing within the sector through Energy Revolution, Powerful Thinking and training delivered to Northern Festival Network

Recommendations

- Include a carbon reduction target aligned with the UK government's Climate Change Act and the Paris Agreement (i.e. 80% by 2050) in the environmental policy.
- Given Shambala is already very close to being aligned with the UK government's Climate Change Act, there is an opportunity for a powerful communications story, demonstrating its leadership and what is possible for the festival sector to achieve.
- Celebrate achievements with your staff, volunteers and contractors. Explain in your policy how far you've come and where you want to get to
- Create an engagement strategy for working with staff members to reduce environmental impacts
- Consider participating in The Season, a national initiative to promote creative responses to climate change in 2018
- Make clearer links between the environmental policy and action plan and wider operational and business plans, including budgets and investments
- Investigate further opportunities for artist engagement

Shambala Festival Scored 11/15 for Understanding

Understanding is assessed based on:

- breadth and depth of understanding of environmental impacts
- extent to which environmental data is used inform action and track progress in reducing impacts

Direct	2009	2010	2011	2012	2013	2014	2015	2016
Energy use								
Water use								
Wastewater volumes								
Waste generation								
Production travel								
Indirect	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Audience travel								

Highlights	Recommendations
• Monitoring audience travel impacts • Artist, contractor and crew travel are monitored through an online calculator • Energy and waste contractors provide post-event reports • Monitoring campsite and trader food waste • Green trader assessment is also conducted on-site to gather information on sustainability actions • Energy contractor Firefly supports improved understanding of consumption across site through detailed data and energy profiles • Strong working relationship with energy contractor, particularly regarding generator management, which has continued despite the switch to Hewden	Shambala Festival's waste and energy contractors, as well its own review, have already identified clear actions for traders and especially the bars. Shambala could also: • Fix water meter on festival site • Investigate ways to improve uptake of travel calculators • Carbon balance could include clearer feedback and celebration • Consider monitoring production materials as this will help engage artists with other issues and will also benefit waste management

Shambala Festival Scored 24/40 for Improvement

Improvement is assessed based on:

- quantifiable reductions in direct environmental impacts, i.e. impacts over which an organisation has direct control such as energy use and waste generation, both total and relative impacts
- actions to address indirect environmental impacts, i.e. impacts over which an event has limited or no direct control, such as audience travel

Environmental impact trends (based on direct and indirect impacts)

		Baseline year 2009	Previous year 2015	Current year 2016	% change current vs previous year	% change current vs baseline year	Trend over time
Diesel use (all types)	litres	21385	16069	16611	3%	-22%	
	litres per audience day	0.7	0.3	0.3	-4%	-54%	
Energy use emissions (all sources)	tonnes CO2e	46	19	12	-38%	-74%	
	kg CO2e per audience day	1.4	0.4	0.2	-43%	-85%	
Waste	tonnes	57	93	85	-9%	47%	
	kg per audience day	2	2	2	-15%	-13%	
Production travel emissions	tonnes CO2e	0	128	137	7%	-11%	
	kg CO2e per audience day	0	2	2	0%	-33%	
Audience travel	tonnes CO2e	133	180	198	10%	49%	
	kg CO2e per audience day	4	4	4	2%	-12%	

* The baseline year production travel is 2011.

Highlights	Recommendations
Comparing 2016 with 2015: • Reduced all diesel use by 4% per audience day • Reduced energy emissions by 43% per audience day by continuing the switch to biodiesel and renewables • Recycled and composted 38% of waste (up from 35%) and reduced total tonnage of all waste by 9%. Per audience day tonnage of waste fell 15%. Comparing 2016 with 2009 (baseline year): • 85% reduction in energy emissions per audience day • 13% reduction in waste tonnage per audience day • 33% reduction in production travel emissions per audience day • 12% reduction in audience travel emissions per audience day • By using biodiesel and generating electricity with on-site renewables Shambala Festival avoided emitting 45 tonnes CO2e in 2016. • By recycling, composting, and diverting to energy-from-waste facilities, Shambala Festival avoided 20 tonnes CO2e in 2015.	• Continue all the excellent practice you're doing and act on the advice of your waste and energy contractors • Next year's focus on all traders and especially the woods and bars, both in terms of planning energy use and waste management, will hopefully have a significant impact. Bottled gas use is now such a major part of the festival's energy emissions, steps must be taken to continue getting it under control • A focus on production materials could have a surprisingly large impact on waste production • Consider switching to more local contractors when there's a choice. An example is using FareShare East Midlands (in Narborough, Leics) instead of South West.

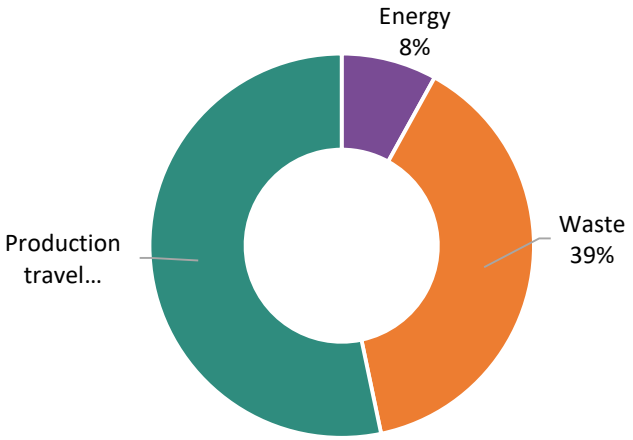
Your Impacts and Performance in Numbers

This section provides further detail on your direct and indirect environmental impacts and how they have changed over time, covering both increases and decreases. Its aim is to support you to:

- track and understand performance over time
- identify where you are doing well and areas for further improvement

Carbon footprint trends (based on direct and indirect impacts)

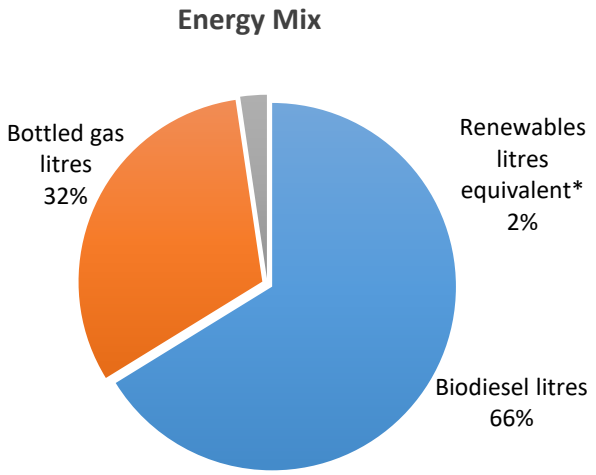
		Baseline year 2009	Previous year 2015	Current year 2016	% change current vs previous	% change current vs baseline
Energy	tonnes CO2e	46	19	12	-38%	-74%
Waste	tonnes CO2e	57	93	85	-9%	47%
Production travel	tonnes CO2e	0	128	137	7%	-11%
Total carbon footprint	tonnes CO2e	104	240	233	-3%	124%
Total relative carbon footprint	kg CO2e per audience day	3	5	4	-10%	33%
Audience travel	tonnes CO2e	133	180	198	10%	49%
Total carbon footprint including audience travel	tonnes CO2e	237	421	431	3%	82%
Total relative carbon footprint including audience travel	kg CO2e per audience day	7	8	8	-4%	8%



Energy Use

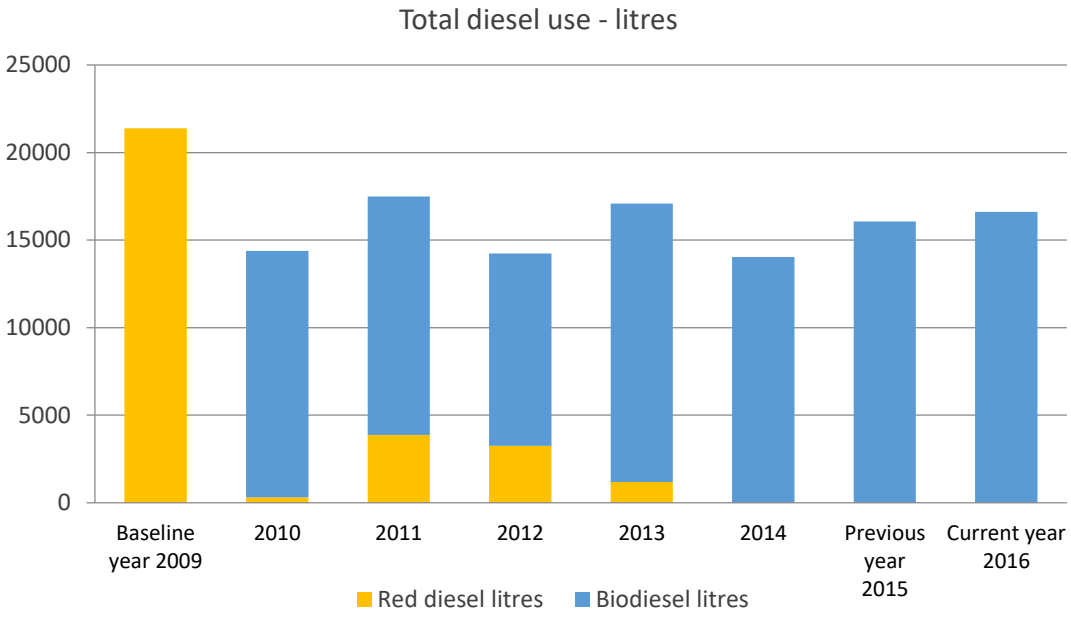
Shambala Festival is mainly powered by diesel generators. 100% of all diesel used is biodiesel (waste vegetable oil). A small amount of electricity is generated on-site using solar photovoltaic panels and solar-powered batteries. Bottled gas is used by traders and concessions.

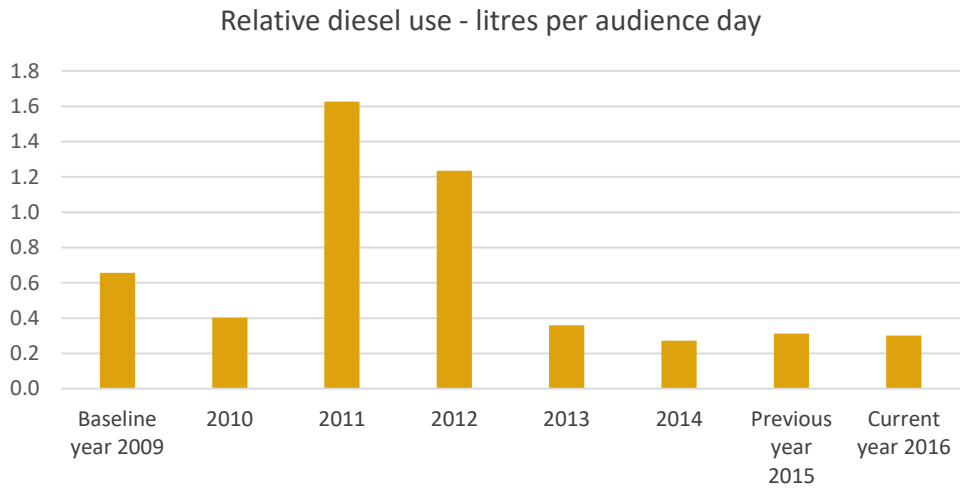
- Total diesel use increased by 3% between 2015 and 2016 but decreased by 22% since 2009.
- Diesel use per audience day decreased by 4% between 2015 and 2016 and decreased by 54% since 2009.
- Diesel use per audience day is nearly half of the sector average.
- The increase in total diesel use between 2015 and 2016 is due to a larger site.
- The decrease in total diesel use since 2009 is due to improved energy use planning, the use of more efficient infrastructure and improving staff awareness. Hewden estimate efficiencies in the 2016 system avoided 7278 litres of biodiesel being consumed

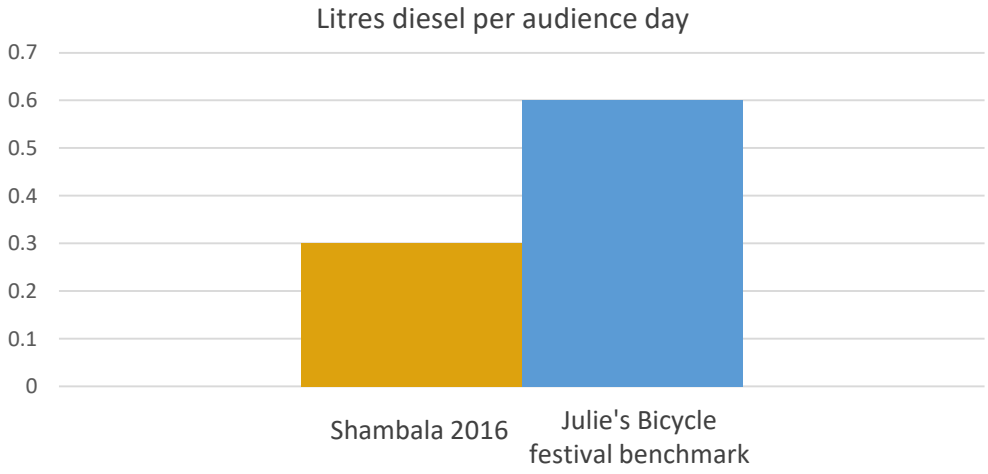


* Assuming 1kWh = 1.5 litres of fuel (source: Hewden post show report)

		Baseline year 2009	Previous year 2015	Current year 2016	% change current vs previous	% change current vs baseline
Diesel use (all types) - absolute	litres	21,385	16,069	16,611	3%	-22%
Diesel use (all types) - relative	litres per audience	1	0	0	-4%	-54%
Red diesel	litres	21,385	-	-	n/a	-100%
Red diesel	litres	16,385	-	-	n/a	-100%
Concession red diesel	litres	5,000	-	-	n/a	-100%
Biodiesel	litres	-	16,069	16,611	3%	18%
Biodiesel	litres	-	16,069	16,611	3%	37%
Concession biodiesel	litres	-	-	-	n/a	-100%
Biodiesel as % of total diesel	%	-	1	1	0%	100%
Bottled gas	litres	2,519	12,785	7,892	-38%	213%
Electricity	kWh	-	-	-	n/a	n/a
Green tariff mains electricity	Kwh	0	0	0	n/a	n/a
Gas	kWh	0	0	0	n/a	n/a
Normalised gas	kWh	0	0	0	n/a	n/a
Onsite renewables	kWh	50	485	390	-20%	680%
Onsite renewable electricity	Kwh	0	0	0	n/a	n/a
Onsite renewable electricity fed	Kwh	0	0	0	n/a	n/a


Total diesel use - litres
25000
20000
15000
10000
5000
0
Baseline year 2009
2010
2011
2012
2013
2014
Previous year 2015
Current year 2016
Red diesel litres
Biodiesel litres


Relative diesel use - litres per audience day
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Baseline year 2009
2010
2011
2012
2013
2014
Previous year 2015
Current year 2016


Litres diesel per audience day
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Shambala 2016
Julie's Bicycle festival benchmark

Energy Use Emissions

Shambala Festival's energy use generated 12 tonnes CO2e in 2016, which works out as 0.2 kg CO2e per audience day.

• Total energy use emissions decreased by 38% between 2015 and 2016 and decreased by 74% since 2009.

• Energy emissions per audience day decreased by 43% between 2015 and 2016 and decreased by 85% since 2009.

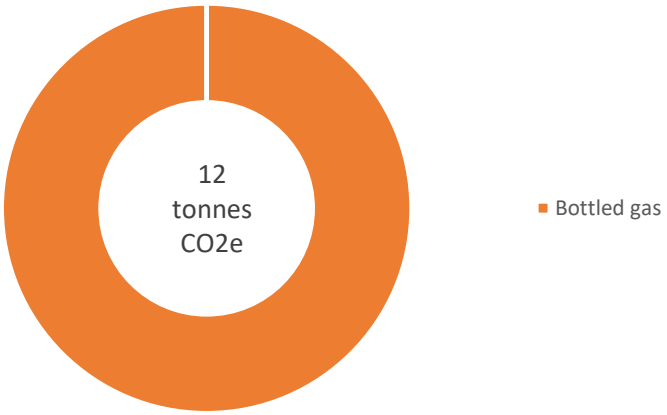
• The decrease in energy use emissions between 2015 and 2016 is largely due to efficiencies in the infrastructure which decreased bottled gas use.

• The decrease in energy use emissions between 2009 and 2016 is due mainly to replacing red diesel with biodiesel and renewable energy, but also a range of energy efficiency measures, the use of energy efficient infrastructure and raising trader awareness on energy use and emissions.

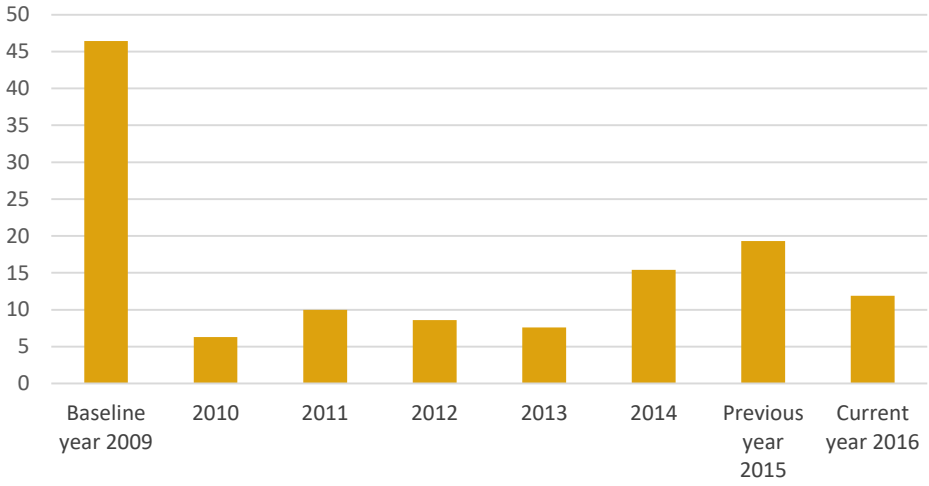
By using biodiesel and generating electricity with on-site renewables Shambala Festival avoided emitting 45 tonnes CO2e in 2016.

		Baseline year 2009	Previous year 2015	Current year 2016	% change current vs previous	% change current vs baseline
Energy use emissions (all sources) - absolute	tonnes CO2e	46.4	19.3	11.9	-38%	-74%
Energy use emissions (all sources) - relative	kg CO2e per audience day	1.4	0.4	0.2	-43%	-85%
Red diesel	tonnes CO2e	42.6	0.0	0.0	n/a	-100%
Biodiesel	tonnes CO2e	0.0	0.0	0.0	n/a	n/a
Bottled gas	tonnes CO2e	3.8	19.3	11.9	-38%	214%
Electricity	tonnes CO2e	0.0	0.0	0.0	n/a	n/a
Green tariff mains electricity	tonnes CO2e	0.0	0.0	0.0	n/a	n/a
Gas	tonnes CO2e	0.0	0.0	0.0	n/a	n/a
Emissions avoided using biodiesel instead of red diesel	tonnes CO2e	0.0	43.0	44.5	3%	41%
Emissions avoided using onsite renewable electricity onsite	tonnes CO2e	0.0	0.2	0.2	-28%	558%
Onsite renewable electricity used	tonnes CO2e	0.0	0.0	0.0	n/a	n/a
Onsite renewable electricity fed to grid	tonnes CO2e	0.0	0.0	0.0	n/a	n/a

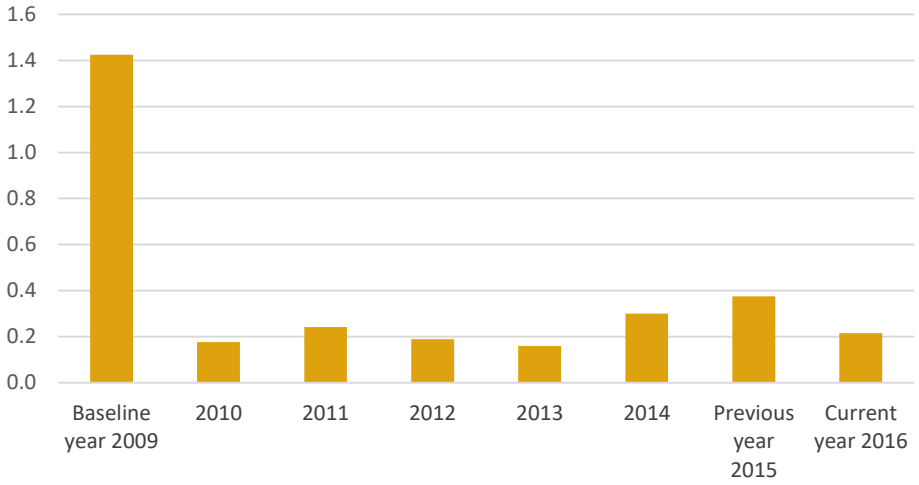
Energy use emissions by source 2015



Energy use emissions - tonnes CO2e



Energy use emissions - kg CO2e per audience day



Waste

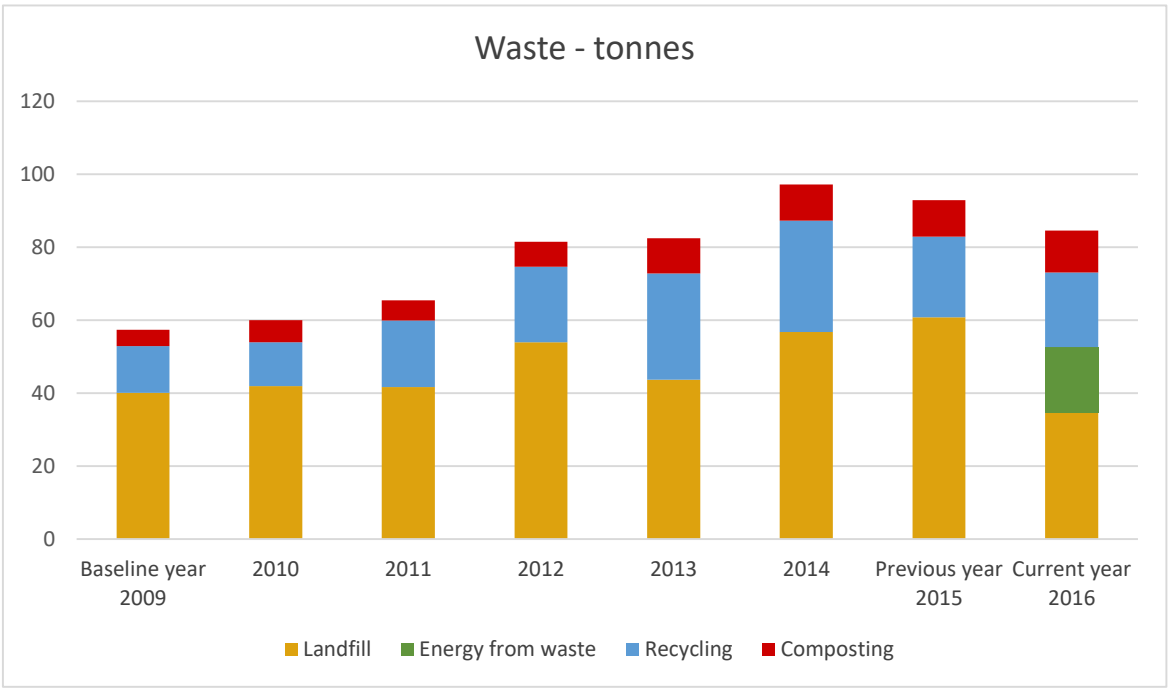
Shambala Festival generated 85 tonnes of waste in 2016, which works out as 1.5 kg per audience day.

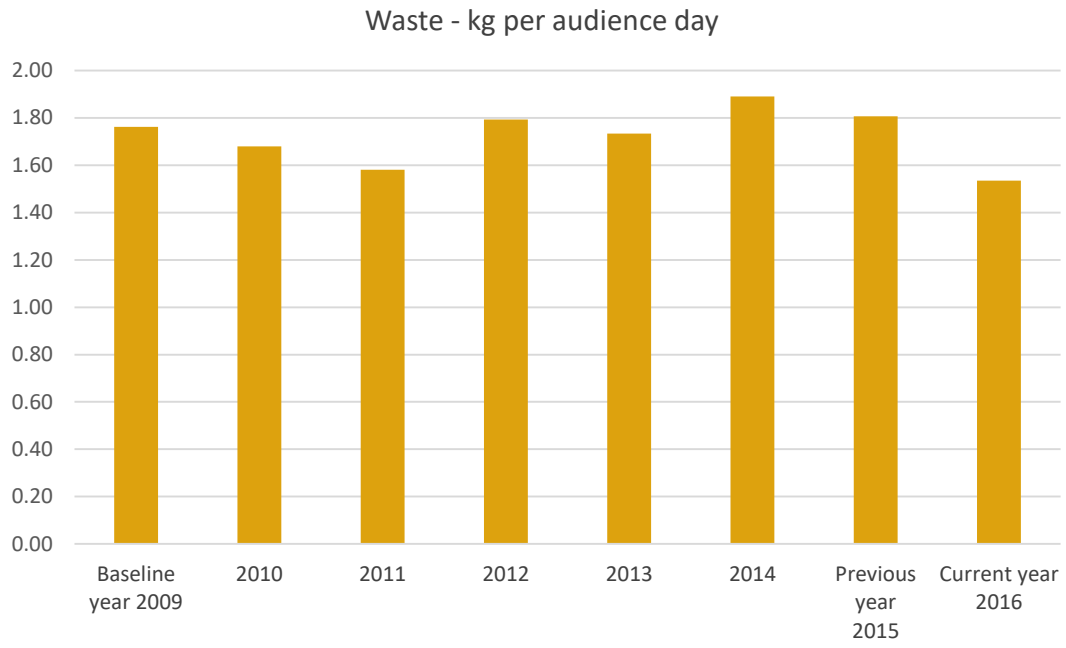
- Total waste tonnage decreased by 9% between 2015 and 2016 but increased by 47% since 2009
- Waste kg per audience day decreased by 15% between 2015 and 2016 and decreased by 13% since 2009.
- Waste kg per audience day are approaching half the sector average.

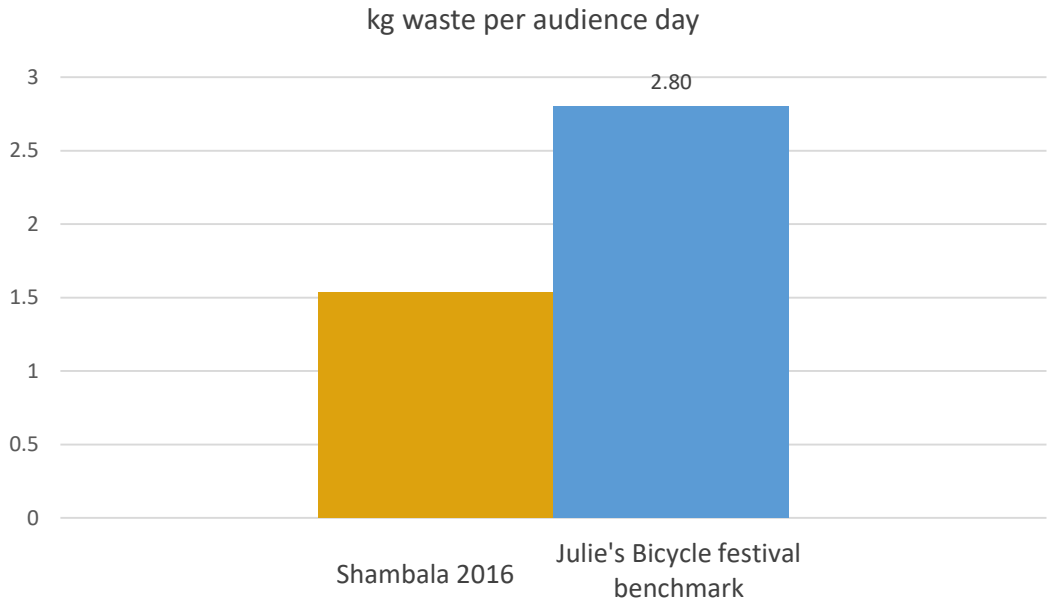
By recycling, using energy-from-waste facilities, and composting waste instead of sending it to landfill, Shambala Festival avoided 20 tonnes CO2e in 2016. Recycling rate improved from 35% (2015) to 59% (2016).

Waste

		Baseline year 2009	Previous year 2015	Current year 2016	% change current vs previous	% change current vs baseline
Waste generation - absolute	tonnes	57	93	85	-9%	47%
Waste generation - relative	kg per audience day	2	2	2	-15%	-13%
Landfill waste	tonnes	40	61	35	-43%	-14%
Energy from waste	tonnes	0	0	18	n/a	n/a
Recycling	tonnes	13	22	20	-8%	59%
Composting	tonnes	5	10	12	16%	157%
% landfill	%	70%	65%	41%	-37%	-41%
% recycling (recycling + energy from waste + composting)	%	30%	35%	59%	25%	29%




Waste - kg per audience day
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
Baseline year 2009
2010
2011
2012
2013
2014
Previous year 2015
Current year 2016


kg waste per audience day
3
2.5
2
1.5
1
0.5
0
2.80
Shambala 2016
Julie's Bicycle festival benchmark

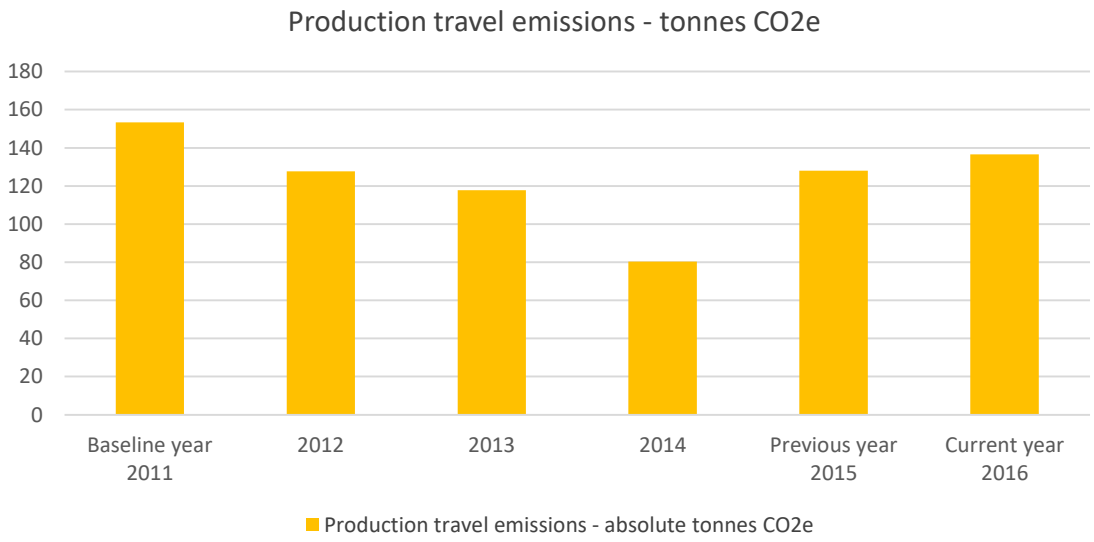
Production Travel Emissions

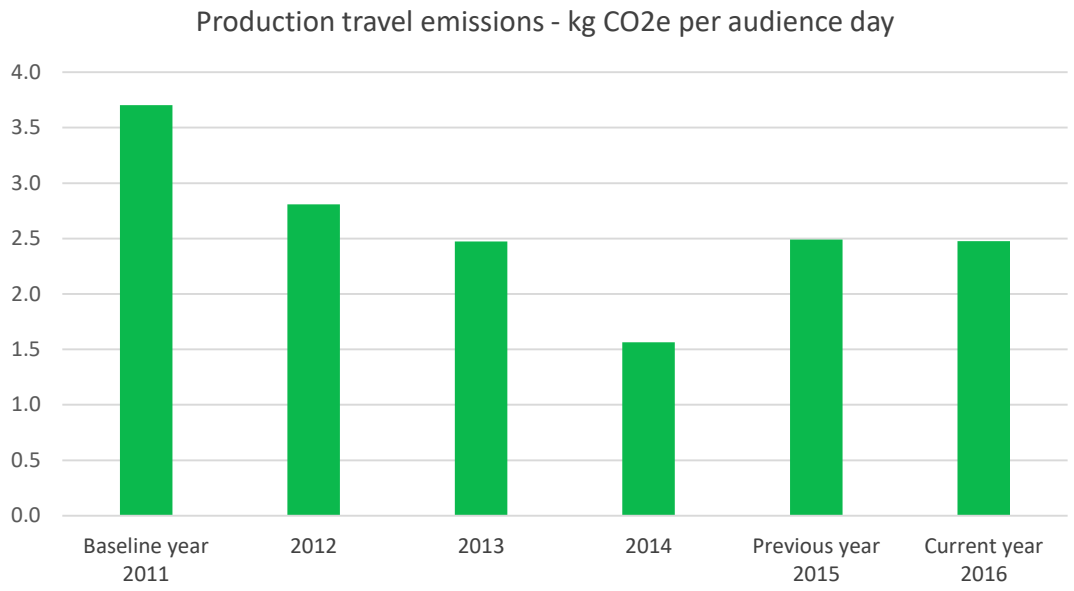
Shambala Festival's production travel, covering artists and crew travel and production transport, generated 137 tonnes of CO2e in 2016, which works out as 2 kg CO2e per audience day.

• Total production travel emissions increased by 7% between 2015 and 2016 but decreased by 11% since 2011.

• Production travel emissions per audience day were unchanged between 2015 and 2016 but decreased by 33% since 2011.

		Baseline year 2011	Previous year 2015	Current year 2016	% change current vs previous		% change current vs baseline	
Production travel emissions - absolute	tonnes CO2e	153	128	137	↑	7%	↓	-11%
Production travel emissions - relative	kg CO2e per audience day	4	2	2	↓	0%	↓	-33%
Crew	tonnes CO2e	119.0	46	84	↑	83%	↓	-29%
Contractor Deliveries	tonnes CO2e	7.0	26	26	→	0%	↑	271%
Artist	tonnes CO2e	28	56	27	↓	-52%	↓	-4%



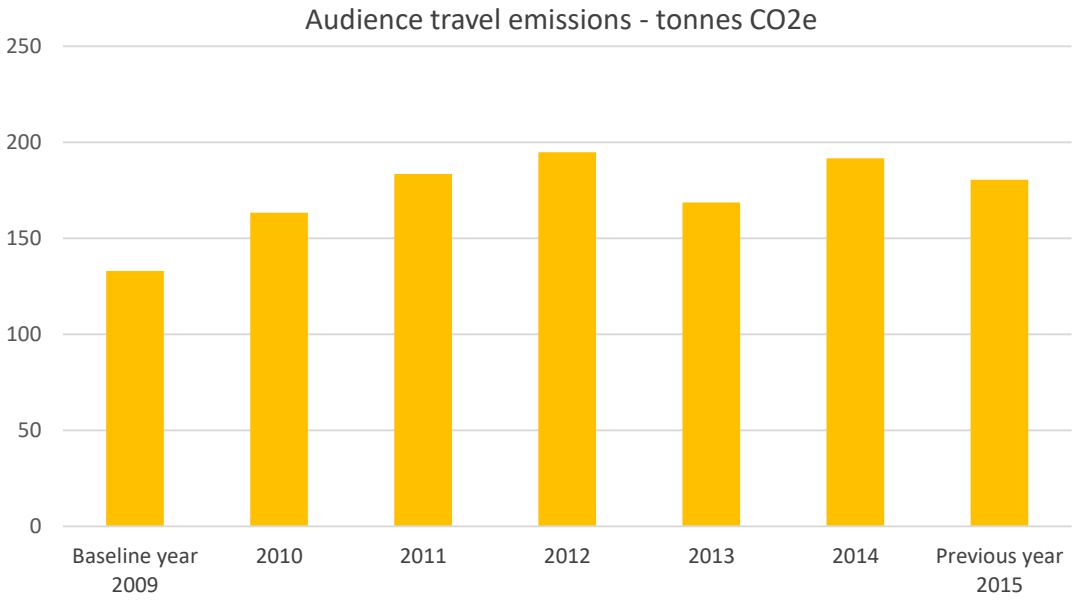

Production travel emissions - kg CO2e per audience day
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Baseline year 2011
2012
2013
2014
Previous year 2015
Current year 2016

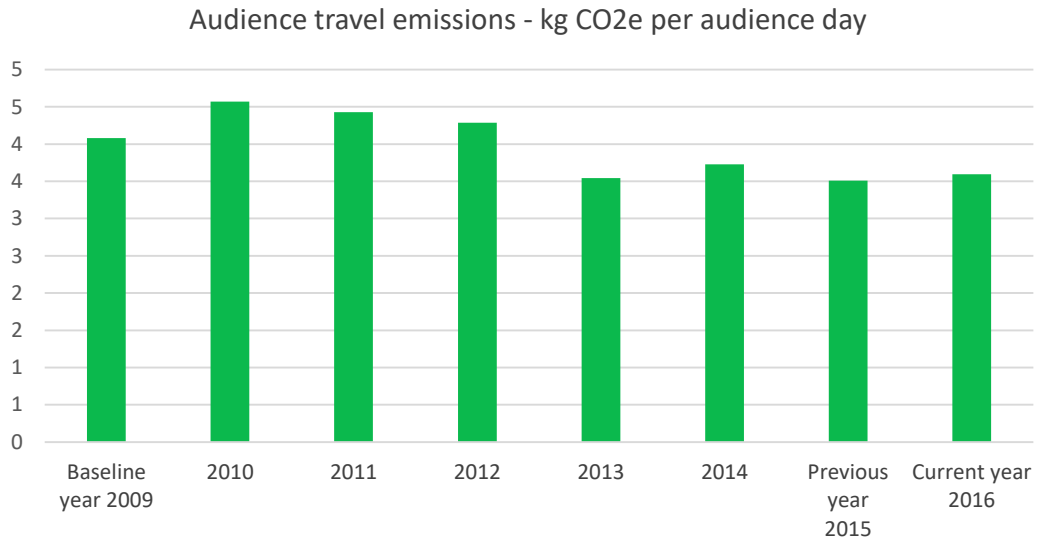
Audience Travel Emissions

Shambala Festival's audience travel generated 198 tonnes of CO2e in 2016, which works out as 3.6 kg CO2e per audience day.

• Total audience travel emissions increased by 10% between 2015 and 2016 and increased by 49% since 2009.
• Audience travel emissions per audience day increased by 2% between 2015 and 2065 but decreased by 12% since 2009.
• Audience travel emissions reductions between 2009 and 2016 are due to a wide range of transport and travel initiatives including provision of coaches, car sharing, cycling incentives and biofuel shuttle buses.

		Baseline year 2009	Previous year 2015	Current year 2016	% change current vs previous	% change current vs baseline
Total audience travel related emissions - absolute	tonnes CO2e	133	180	198	10%	49%
Total audience travel related emissions - relative	kg CO2e per audience day	4	4	4	2%	-12%


Audience travel emissions - tonnes CO2e
250
200
150
100
50
0
Baseline year 2009
2010
2011
2012
2013
2014
Previous year 2015


Audience travel emissions - kg CO2e per audience day
5
5
4
4
3
3
2
2
1
1
0
Baseline year 2009
2010
2011
2012
2013
2014
Previous year 2015
Current year 2016