



EXECUTIVE SUMMARY

# **First Step** **UK Music Industry** **Greenhouse Gas Emissions** **for 2007**

“The UK music industry is a pivotal cultural and creative industry, nationally and internationally; it therefore has the power – and the responsibility – to be a proactive leader in taking and driving climate change action”

Conducted by



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The Board of Julie's Bicycle would like to thank the following:

Catherine Bottrill for her herculean determination to complete a thoroughly challenging piece of research; Geoff Lye for wisdom, expertise and generosity; and Diana Liverman for faith and finality.

Also thanks to Max Boykoff (ECI), Will Moore (Sustainable Touring), Malcolm Carruthers, Andrew Haworth (Live Nation), Gavin Starks, Helen Heathfield and Julia Haltrecht (Julie's Bicycle).

## Key

1000 g = 1 kg

1,000 kg = 1 metric tonne

t = tonne

~ = approximately

GHG = greenhouse gas

CO<sub>2</sub>e = carbon dioxide equivalent

CO<sub>2</sub> = carbon dioxide

CH<sub>4</sub> = methane

N<sub>2</sub>O = nitrous oxide

# First Step

## UK Music Industry

### Greenhouse Gas Emissions

#### for 2007



## EXECUTIVE SUMMARY

### 1. Background and Introduction

**1.1** 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 CO<sub>2</sub> emissions – the principle greenhouse gas (GHG) – must be reduced by 60–80%<sup>1</sup> by 2050; these emissions are mainly generated by the combustion of fossil fuels.

**1.2** The United Kingdom has committed in its Climate Change Bill to reduce greenhouse gas emissions by at least 60% from 1990 levels by 2050<sup>2</sup>. Transforming to a low carbon emissions society will involve:

- Energy conservation and efficiency;
- Switching to renewable and alternative energy sources;
- Embracing innovative, low carbon technologies;
- Regulatory and market instruments to promote behaviour change.

**1.3** Emerging international, national and regional legislation is clearly signalling 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.

**1.4** The UK music industry is a pivotal cultural and creative industry, nationally and internationally; it therefore has the power – and the responsibility – to be a proactive leader in taking and driving climate change action. If the industry commits to becoming a climate leader, it needs to ensure, as a first step, that its own commitments are aligned with emissions reduction targets. Julie's Bicycle is developing as an industry collaboration which aims to catalyse a sector-wide strategic response, starting with an understanding – and progressive management of – its own carbon footprint.

<sup>1</sup> As recommended by the Intergovernmental Panel on Climate Change and Stern reviews (IPPC 2007a; Stern 2006).

<sup>2</sup> The UK Government on 18th February 2008 announced a statutory review of the 2050 CO<sub>2</sub> emission reduction target to strengthen the Bill to set an 80% emissions reduction target (Defra 2008).

## 2. Research Aims and Methodology

**2.1** In July 2007, Julie's Bicycle commissioned a scoping study by Oxford University's Environmental Change Institute to:

- Develop indicative estimates of the annual GHG emissions of the UK industry across its core sectors and activities;
- Identify the key blockages and opportunities for reducing GHG emissions;
- Make initial recommendations for specific actions and priorities for the medium term.

**2.2** The study's primary focus was on the GHG emissions produced from the demand for music products and live performances by UK consumers, including artist management, agency & promotion; live performance; recording; publishing; distribution; retail; and collection societies (including trade bodies). The UK music industry is, however, a global industry with over £6 billion in consumer spending per annum<sup>3</sup>. An initial impression of the scale of emissions from international touring was therefore included within the brief.

**2.3** Activities linked to the music industry, but beyond the scope of this first phase of research were: music listening devices; merchandising; music instruments and equipment; music education; and music media.

**2.4** The boundary set for this first research phase was to estimate GHG emissions resulting from building energy use, CD manufacturing and transportation. The study:

- Collected and analysed data from over 100 industry sources;
- included 100 case studies of energy use by business activities across the recording and live music performance supply chain;
- gathered data from a cross-section of large and small businesses across the industry in order to develop a representative picture of the industry in its current form;
- interviewed over thirty chief executives and key informants to gather qualitative data on what music companies are currently doing to address climate change and what they perceive as possible in the short to medium-term.

## 3. Key Findings

**3.1** The industry is categorised as a service sector with some manufacturing and is not therefore characterised as energy or carbon intensive. The main GHG emissions sources of the industry are from using fossil-based energy and materials for the heating, lighting and powering of buildings (offices and music venues); for the manufacture of CDs; for trucking music products and touring equipment; for international air travel of artists and staff; and for audience travel to live performances.

**3.2** The study finds that the sale of music products and live music performances to UK consumers is currently creating at least approximately 540,000 t CO<sub>2</sub> equivalent<sup>4</sup> a year. To put this in perspective, annual emissions at this level are roughly equal to the average annual emissions of a town of 54,000 inhabitants or the annual emissions from 180,000 cars<sup>5</sup>.

**3.3** For the UK music industry to reduce emissions from the consumption of music products and services to UK consumers by at least 60% means annual emissions should be no higher than ~200,000 t CO<sub>2</sub>e. An 80% reduction would require emissions to be cut to just ~100,000 t CO<sub>2</sub>e per year.

**3.4** The breakdown between the key emission sources by activity are approximately as shown below:

UK MUSIC MARKET GHG EMISSIONS IN BRIEF – 2007:

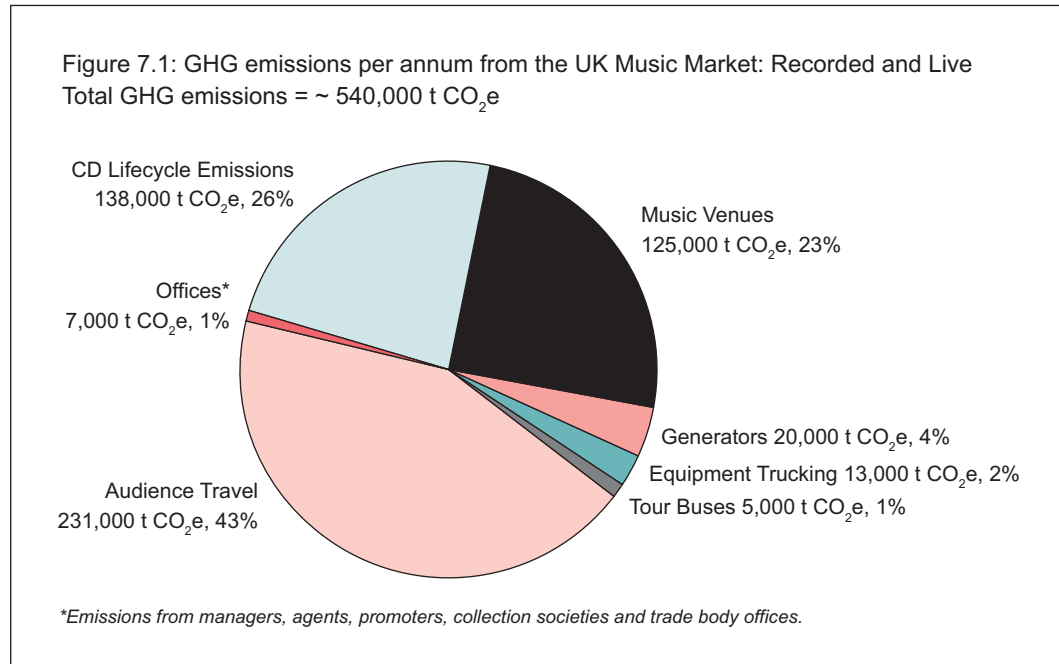
- Recorded Music – 134 million albums were sold in the UK, approximately 90% of which were sold in the CD format. The average GHG emissions per CD album from recording through to retail are approximately 1 Kg CO<sub>2</sub>e
- Live Performance – In the order of 75 million tickets are sold annually, 90% are venue-based and 8% are music festivals. There are ~2,200 venues in the UK regularly playing live music and almost 500 festivals annually. A music venue with a capacity of 2,000 people is likely to produce over 400 t CO<sub>2</sub>e per year. A large music festival (more than 40,000 people) including audience transport will produce in the order of 2,000 t CO<sub>2</sub>e.
- Live music performance sectors together with audience travel account for three-quarters (~75%) of the UK music industry's GHG emissions. Recorded music sectors account for a quarter (~25%) of GHG emissions.

<sup>3</sup> Creative & Cultural Skills and DCMS

<sup>4</sup> CO<sub>2</sub> equivalence measures all GHGs and converts them to their equivalent global warming potential

<sup>5</sup> The UK annual average per capita emissions are ~10t CO<sub>2</sub> (CDIAC, 2007). The UK annual average mileage of all cars is 8,770, which result is 3t CO<sub>2</sub> per car if assuming it is an average petrol car (DfT, 2007).

As seen in Section 7, figure 7.1



#### INTERNATIONAL TRAVEL AND TOURING GHG EMISSIONS:

- There is limited data available on international touring. An initial estimate for USA and European Rock and Pop touring by UK artists, inclusive of audience travel, puts these emissions at, at least 400,000 t CO<sub>2</sub>e per annum.
- Air travel is conservatively estimated to be at least 16,000 t CO<sub>2</sub>e per annum generated from the travel of industry employees.

**3.5** The most significant components of the industry's carbon footprint – which should be priority areas for the industry to address – are:

- CD packaging
- Venue energy use
- Audience travel (*This is an indirect emission source and part of the value chain so not the exclusive responsibility of the music industry*)

## 4. Key Issues and Constraints

**4.1** The indicative estimates of GHG emissions come with a health warning.

The estimates are based on the data currently available from music companies. Many companies were willing to input information to this study, but in many cases they did not have sufficiently accurate energy data available to quantify GHG emissions<sup>6</sup>. The music industry is at the beginning of the learning process in energy and carbon management. Indeed, most companies are not yet systematically collecting and analysing the information needed to quantify and monitor – let alone manage – the GHG emissions produced from their business activities.

<sup>6</sup> It should be noted that this study does not represent a formal audit of the industry's carbon footprint.

**4.2** The fragmented nature of the industry presents problems in data collection and coordination of an industry wide response.

At one end of the business spectrum the industry is highly consolidated (recording, publishing, promotion and agency). As a consequence across the recording and live performance sectors the majority of products and services are sub-contracted, such as CD manufacturing and trucking logistics. At the other end the industry is characterised by thousands of small-to-medium enterprises (SMEs) and sole traders. Individually, these companies have small emissions profiles, but collectively their emissions become significant. This sets particular challenges for industry prioritisation and collaboration on climate but initial industry soundings elicited enormous enthusiasm for coordinated action. A collaborative and shared knowledge base response will reduce the risk of any one company or sector, and ensure a more effective and rigorous action plan. The industry needs to work together in its response to climate change to have the greatest concentrated impact and ensure the mainstreaming of positive efforts.

**4.3** *The emissions boundaries set for this study do not include the industry's full global impacts.*

The industry is global in its business activities and so are its emissions. For example, the majority of CD and musical instrument manufacturing is done in continental Europe and Asia respectively and international touring is precisely that – international. This research set the boundaries by including emissions which result from decisions made in the UK. It will be important over time to understand the full global emissions which result from the UK music industry's activities.

#### **4.4 The shift to digital will significantly alter the industry's lifecycle GHG emissions profile over the coming years.**

These changes will result in the greater proportion of GHG emissions coming from indirect sources; for example, the energy used by servers hosting digital music; the embodied carbon in the materials of music listening devices; and audience travel to and from live music performances. An industry-wide climate positive strategy needs to recognise and anticipate the changing shape of its emission profile. The industry will need to work with other industries (e.g. manufacturers of music listening devices) and consumers to ensure its products and services are measured, and result in minimal GHG emissions. Work needs to be done that takes into account consumers' patterns, notably in music downloading and music on demand.

#### **4.5 The music industry is exposed to a high level of media scrutiny, which can discourage public statements on climate change action.**

The issue of climate change is complex and scientific and technological responses are constantly evolving. The industry needs reliable, up-to-the-minute and authoritative advice on measures to tackle change so it does not fall behind latest best practice and risk being pilloried for choices which are seen in hindsight to have been flawed.

#### **4.6 There are already a number of exemplary and innovative practices taking place within the industry, but these are generally small in scale and at the single company level.**

These include: auditing energy use and carbon emissions; carbon disclosure; purchasing renewable electricity; photovoltaic powered recording studios; biodegradable packaging; green festival awards scheme; combined coach and festival tickets; biodiesel power generators; LED venue and stage lighting; staff green teams; hybrid/low emission car and taxi use; rationalised travel (including flights) and energy efficient venues and office buildings.

## **5. Concluding Observations**

**5.1 The UK music industry is not carbon intensive but still will find reducing GHG emissions by 60-80% a challenge.** It is currently not well prepared to deliver this level of climate responsibility. There is a growing understanding in the industry that it faces both commercial and moral imperatives to act on climate change.

**5.2 The business case for action is rooted in the inevitability of costs which will attach to GHG emissions** as carbon regulation, taxes and trading progressively penalise carbon emissions; equally there will be positive savings and intangible benefits to businesses which reduce their carbon footprint. Furthermore, climate responsible companies find competitive advantage with their stakeholders (especially consumers and increasingly their own staff).

**5.3 The moral case reflects the power this particular industry has to influence society more generally** through its cultural leadership and role modelling. With this power comes the opportunity – and arguably the responsibility – to set an example by mitigating its own emissions and encouraging climate responsibility among its global audiences.

**5.4 The industry is made up of many small companies and sectors. The sum total creates a latent mass of interconnected power.** There are several factors which inhibit the exercising of that power to tackle climate change, the most significant being that no single company or sector can afford to over expose itself to financial or branding risks. If the industry acts together within and across sectors the risk will be minimised and the effect will be greater. In addition strong industry support needs to be given to industry champions so that they are not acting in isolation.

**5.5 Energy management is the first step towards carbon disclosure,** whereby companies produce an annual statement of their carbon emissions with forward-looking reduction targets and strategies. This is becoming standard practice for corporate accountability. The music industry could take a lead by being prepared and willing to participate, pre-regulation, in this transparency process.

## 6 Recommendations

**6.1** On the basis of this study, it is clear that there is **widespread support for coordinated industry actions on climate**. As first steps towards climate leadership, it is recommended that the industry agree both short and medium term goals.

**6.2** In the short term, it is proposed that **reducing the industry's own carbon footprint should be the clear priority**. This should include:

- Undertaking regular greenhouse gas emissions audits of business activities.
- Committing to joint action, whereby the industry is able to take collective decisions, recognising that the sum is greater than its parts, and that new climate commitments are inhibited by a perception of individual company risk.
- Managing building energy use, especially of music venues, offices and retail stores to target energy savings and low carbon technology investments by developing GHG/energy accounting systems similar to financial accounting systems.
- Switching to a green (i.e. low carbon emissions) electricity tariff or, better still, 100% renewable energy sourcing.
- Improving the availability and quality of data, especially in the area of live music performance (in the UK and internationally).
- Creating a variety of travel schemes, and working with local authorities, travel companies and events organisers to reduce audience transport emissions.
- Moving to low emissions CD packaging.
- Identifying and investing in low carbon business opportunities.
- Organising regular training, knowledge sharing and advice on environmentally responsible choices (best practice, procurement, innovative business models) between companies, artists and staff across the industry.
- Engaging suppliers in GHG emission reduction programmes, including as a first step requesting information on their own carbon footprints.
- Developing strategic partnerships for joint action – e.g. Greater London Authority Climate Change Action Plan.

**6.3** Within these programmes, it is recommended that **'beacon' commitments should be made to demonstrate real commitment and achievable quick wins**. Initial proposals include:

- 1) Switching to green (i.e. low carbon emissions) electricity tariff or, better still, a 100% renewable energy sourcing.
- 2) Exploring an industry-wide initiative on low carbon CD packaging.
- 3) Installing low carbon lighting (eg LED) in live music venues.
- 4) Identifying, and highlighting all options for beacon travel plans for event goers, especially those already operating, as well as transferring music companies' taxi contracts to 'green' suppliers.

**6.4** In the medium term, **the industry should identify its 'levers of influence'** and use these to effect policy interventions and public education on climate. It will be essential to establish credibility for moving in this direction by delivering a serious and visible set of programmes to reduce its own carbon footprint. Leadership through practical demonstration of actions to reduce GHG emissions will be more lasting and meaningful than only artist led campaigns.

**6.5** The music industry is centrally influential in lifestyle choices and therefore has **an opportunity to be an important leader in the transformation to a low carbon economy**, as emissions are closely tied to decisions on lifestyle. As a service industry, it could and should be an exemplar in the UK and internationally for demonstrating how business works in partnership with its sub-contractors and customers to transform its products and services; to minimise the emissions generated; and to bring an amplified voice for changes in the energy infrastructure and for a drive towards a low carbon economy. The mobilisation of the industry's critical mass will be key to its becoming a climate leader.





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