



**Complete Music and Sound**  
Refined in Sound

*Better, Kinder Events Policy*

## **Environment and Social Impact Report**

### **2022-2023 (tax year)**

#### **Executive Summary**

“Faced with the understanding that our planet already has too much carbon in the atmosphere to avoid significant climate events, Complete Music and Sound aims to be carbon negative. This means to net sequester or “draw down” carbon from the atmosphere back into the soil. This is not something we can do directly so the services of appropriate organisations will be required at this point. However, we will intervene directly to minimise our carbon output at every opportunity rather than simply relying on a generic carbon offsetting (tree planting) programme. We also will aim for scope 3\* interventions which involves looking at our supply chain and customer behaviours. Complete Music and Sound also aims to measure carbon impact in a holistic manner, ensuring that every aspect of the supply chain is considered.”

Many actions are already in place from previous audits but we always acknowledge we won't be perfect and there will always be work to be done, and monitoring and being honest about our activities is key to progress.

Data and research to inform our actions is taken from Ethical Consumer magazine, various websites (referenced throughout document), and organisations such as A Greener Festival (AGF).

We intend to have a holistic approach that focuses on root causes of problems rather than using (much criticised) carbon buy back as a first option just so we can get a badge. Last year we should have paid greater attention to the carbon impact of replacing the vehicle with a cleaner model. The production impact of automotive industry was under-estimated and making progress towards rectifying this.

Each year we will set goals for the subsequent year which will be reviewed, against evidence on the following areas.

- Carbon Impact
- Waste/Pollution
- Social, Community and Education impact

Complete Music and Sound will be open and encouraging to other businesses and organisations that want to improve their impact on the above areas. Any information that can be shared will be for the greater good.

Adrian Barker

Complete Music and Sound is a trading name for Adrian Barker

#### Definitions:

**Scope 1 – All Direct Emissions** from the activities of an organisation or under their control. Including fuel combustion on site such as gas boilers, fleet vehicles and air-conditioning leaks.

**Scope 2 – Indirect Emissions** from electricity purchased and used by the organisation. Emissions are created during the production of the energy and eventually used by the organisation.

**\*Scope 3 – All Other Indirect Emissions** from activities of the organisation, occurring from sources that they do not own or control. These are usually the greatest share of the carbon footprint, covering emissions associated with business travel, procurement, waste and water.

**SOURCE:** <https://www.compareyourfootprint.com/difference-scope-1-2-3-emissions/>

**CO2e** - The number of metric tons of CO2 emissions with the same global warming potential as one metric ton of another greenhouse gas

**SOURCE:** United states Environmental Protection Agency

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## Carbon Impact

We have identified a number of sources of carbon release in the data table below and will attempt to either reduce these to zero or offset the carbon through meaningful donations.

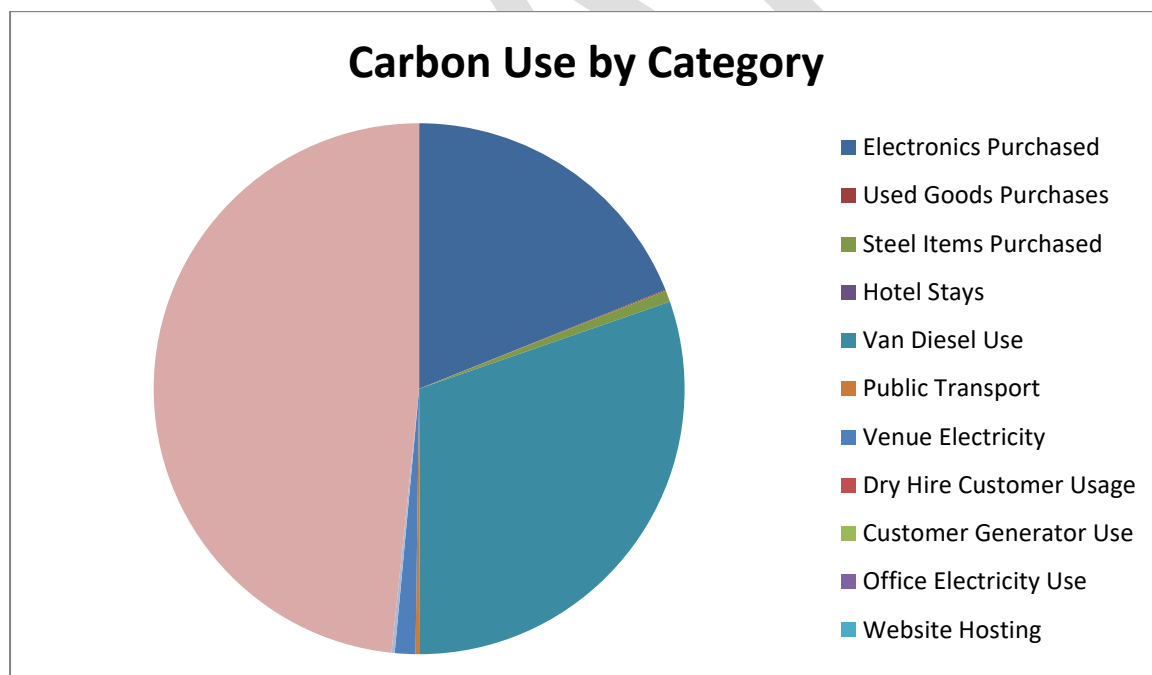
### Consumption Data for 2022-2023

Source and SCOPE	Consumption eg. Distance or usage	Impact (CO2e)kg	Supplier(s)	Notes/Information Sources
Purchase New Electronic Equipment – Production impact (Scope 3)	7 Items (of which 3 had microprocessors and 1 contain neodymium and 1 contained lithium ion)	1000kg estimated		<a href="https://www.maxemoverley.com/environment/carbon-footprint-of-electronics/#:~:text=So%20the%20production%20of%20every,of%20carbon%20into%20the%20atmosphere!">https://www.maxemoverley.com/environment/carbon-footprint-of-electronics/#:~:text=So%20the%20production%20of%20every,of%20carbon%20into%20the%20atmosphere!</a>
Purchase of Used Electronic Equipment – Production impact (Scope 3)		0kg		Second-hand purchases are recognised as a best solution by Ethical Consumer in many cases. It is worth pointing out that by creating any demand at all there is a knock on effect to new item production, but no data could be found on this.
Purchase of steel not electronics – Production impact (Scope 3)	20kg* (*estimated not measured)	37kg		Recycling Today claims the numbers are slightly higher, roughly 1.85 metric tons of CO2 per ton steel.
Purchase of other items, not steel or electronic. – Production impact				No data
Hotel Stays (Scope 3)	None	(20kg per night) 0kg	Various	One night in hotel is equivalent to 75km large diesel car. <a href="https://www.greentripper.org/calculator.aspx?cl=en&amp;ol=4">https://www.greentripper.org/calculator.aspx?cl=en&amp;ol=4</a> A trip requiring an overnight stay, we typically try to agree accommodation with customer removing need to use high carbon rooms/towel wash.
Diesel Consumption	4000 miles (2 year)	2.68kg per litre 600 litres, 1600kg	Various	<a href="https://www.carbontrust.com/resources/carbon-footprinting-guide">https://www.carbontrust.com/resources/carbon-footprinting-guide</a>

of Van (Scope 1-3)	mileage 6890 halved and rounded up)			
Public Transport (Scope 3)	Not yet monitored (estimate 200 miles)	14.3kg	Tfl (mainly)	<a href="https://www.lner.co.uk/tickets-savings/the-best-way-to-travel/our-commitment-to-the-environment/#calculator">https://www.lner.co.uk/tickets-savings/the-best-way-to-travel/our-commitment-to-the-environment/#calculator</a>
Electricity at venues (on grid)** (Scope 3)	Avg. Est. Event length 5 hours x 50	250 hours x avg 1 kwh = 66.25kg	Various	Measured as constant based on Max watts "In 2021, these figures were 0.265 kg of CO2e per kWh of electricity" from: <a href="https://www.aquaswitch.co.uk/blog/carbon-intensity/">https://www.aquaswitch.co.uk/blog/carbon-intensity/</a>
Customer use of goods on Dry Hire (Scope 3)	Avg Dry hire NOT CALCULATED	Not Measured for Scope 1 or 2	Various	Measured as constant based on Max watts "In 2021, these figures were 0.265 kg of CO2e per kWh of electricity" from: <a href="https://www.aquaswitch.co.uk/blog/carbon-intensity/">https://www.aquaswitch.co.uk/blog/carbon-intensity/</a>
Electricity at venues (generator)* (Scope 3)	0 No generator powered events this year.	0	Various	<a href="https://www.ablesales.com.au/blog/diesel-generator-fuel-consumption-chart-in-litres.html">https://www.ablesales.com.au/blog/diesel-generator-fuel-consumption-chart-in-litres.html</a> <a href="https://people.exeter.ac.uk/TWDavies/energy_conversion/Calculation%20of%20CO2%20emissions%20from%20fuels.htm">https://people.exeter.ac.uk/TWDavies/energy_conversion/Calculation%20of%20CO2%20emissions%20from%20fuels.htm</a> Measured as constant based on Max watts recorded as in the case of diesel generators they have to have capacity for max output.
Office (Scope 1)	0	0	Ecotricity	<a href="https://www.ethicalconsumer.org/energy/best-buy-ga-ecotricity">https://www.ethicalconsumer.org/energy/best-buy-ga-ecotricity</a> Whilst the supplier is a net zero supplier. The nature of the national grid means that ANY extra use of electricity results in fossil fuel based power stations being used more. So it is still important to record usage.
Website Hosting (Scope 2)	N/A	0	Eco-hosting	
Internet use (Scope 2)	ISP 96GB Mobile Wifi 80GB Mobile Data 6GB	0	Zen (Ethical Consumer Best Buy)	<a href="https://www.zen.co.uk/our-story/netzero">https://www.zen.co.uk/our-story/netzero</a> Data shows average Belgian Users consumed 12-16 tonnes of CO2 via internet – but this seems inappropriate measure to use. Shift Project illustrates some of the

				complexity of calculating CO2E of Internet usage. <a href="https://www.iea.org/commentaries/the-carbon-footprint-of-streaming-video-fact-checking-the-headlines">https://www.iea.org/commentaries/the-carbon-footprint-of-streaming-video-fact-checking-the-headlines</a>
Deliveries (Scope 3)	89 (estimated from receipts)	10.2 (based on 114g per delivery)	Various	<a href="https://www.vanarama.com/latest-news/climate-crisis-how-green-is-your-delivery.html">https://www.vanarama.com/latest-news/climate-crisis-how-green-is-your-delivery.html</a>
Purchase of Medium size van (carried over from 2021) (Scope 3)	23 tonnes in production. Based on Ford Mondeo being 1.6 tonnes and the NV400 being 2.1tonnes (curb weight)	9 year Van life (based on potential upgrade 2030) 2555kg CO2e per year	Nissan	<a href="https://www.theguardian.com/environment/green-living-blog/2010/sep/23/carbon-footprint-new-car">https://www.theguardian.com/environment/green-living-blog/2010/sep/23/carbon-footprint-new-car</a>
<b>Suppliers</b>				<b>Advice needed.</b>
<b>TOTAL</b>		<b>5282Kg</b>		

\* <https://www.ablesales.com.au/blog/diesel-generator-fuel-consumption-chart-in-litres.html>



#### Strategies for reducing emissions impact

1. Monitor consumption – an additional power monitoring plug was added in April 2022 and data was received showing that consumption is typically far lower than expected allowing us to recommend lower powered generators for future events customers

2. Reduce consumption – More items than ever (9 purchases of physical items) have been purchased second-hand instead of new. More items are being repaired, to ensure continued use of items and consequently reducing lifetime carbon impact of equipment.
3. Choose carbon neutral suppliers – We choose only DPD for domestic shipping this year, adding to list of Carbon Neutral suppliers, which also includes Coop Broadband, Ecotricity, Ecohosting. Banking has been transferred to Nationwide which is Carbon Neutral Scope 1 and is aiming for scope 3 by 2030 and already has policies preventing lending to harmful businesses and organisations.
4. Put pressure on suppliers to reduce emission, I made 2 posts on social media about CSR issues, and also sent emails regarding the following issues, that should be dealt with by other businesses

## Research

We have identified difficulties in giving accurate estimates of generator requirements prior to events which has been identified as a major contributor to carbon/pollution release at events. As a result of this we have begun monitoring power consumption at events. Currently it is looking like we may be able to reduce generator capacity by as much as 75% based on initial figures.

## Residual Carbon Use

The following articles talk about the complexities, inconsistencies and at times misleading nature of Carbon Neutral certification. As an example Carbon Neutral Britain infers in the certified Carbon Neutral for Small Business package 1 tonne of CO<sub>2</sub> can be offset with 6 trees, whereas other calculations show this figures nearer .6 of an acre of trees, then the High Level Commission on Carbon Prices has an upper band figure of £74 per tonne in 2020 rising to £92 in 2030

Another way of putting it is how many trees are required to offset 1 tonne of carbon and figures given here say 31-46 per tonne.

<https://www.encon.eu/en/calculation-co2-offsetting-trees#:~:text=In%20summary%2C%20it%20can%20be,to%2046%20trees%20are%20needed.>

<https://drawdown.org/solutions/regenerative-annual-cropping>

<https://www.theguardian.com/environment/2011/sep/16/carbon-offset-projects-carbon-emissions>

<https://www.ethicalconsumer.org/energy/short-guide-carbon-offsets>

For 2022-23 a one off donation will be made to cover the CO2e calculated in the table above.

Donation Rate (per tonne of CO2e calculated)

A donation will be made using the upper band HLCCP figures above adjusted for 2023 to £79.40 per tonne

Carbon Calculation (5.3 tonnes) x Carbon Rate £79.40 = £420.82

#### Massive impact of TFL imposed vehicle replacement

Whilst the vehicle was purchased in 2021 to comply with new emissions standards until now no emissions impact has been measured. This report a further estimation has been made for the main vehicles emissions during manufacture. 23 tonnes are estimated to have resulted from it's manufacture. This is based on it being a £24,000 vehicle (similar in value to a Ford Mondeo) but 1.33 times larger by curb weight than a Mondeo referred to on this website. <https://www.theguardian.com/environment/green-living-blog/2010/sep/23/carbon-footprint-new-car>

It was manufactured in Spain. To spread the cost of carbon replacement we are estimating the vehicle will be sold on or disposed of in 2031 at earliest.



## Pollution and Waste

We believe the leading causes of pollution and waste that we generate to be the following. These are not in order of priority.

- PVC use
- Diesel Particulates
- Electronics manufacture
- Packaging of deliveries
- Single use food and drink related items

### PVC

The problem - PVC is used in cables (which are a major part of our work) and electrical tape. High quality flexible cables are only made in PVC so there are currently no viable alternatives. Part of the process of creating flexible cables involves adding toxic (chlorine based) additives. PVC is a major issue because it does not biodegrade at all and is rarely economical to be recycled.

<http://www.ecolife.com/recycling/plastic/how-to-recycle-pvc-plastic-3.html>

Mitigation:

Alternatives to PVC tape: No PVC tape has been purchased in 2022-23, showing the success of moving over to hook and loop cable ties. Some PVC has been used but only from 4-5 rolls that were left from previous years.

It is possible some PVC tape may need to be purchased for purpose of electrical repairs and installation in next year but alternative will be considered.

PVC encased speaker cable was purchased secondhand to prevent further impact on environment.

### Diesel Particulates

The problem – Diesel particulates in London are a major contributor to poor respiratory health for those people living here.

The following goals have been achieved/maintained since previous report:

We continue to use a Nissan NV400. We went one step further than the requirements of ULEZ ensuring that the vehicle met Euro 6dTemp. This is a standard that ensures vehicles particulate emissions data has been tested under urban driving conditions, which is highly relevant to most of the driving we do.

Whilst driving in London the engine is regularly and frequently switched off at traffic lights and in stationary traffic to prevent any unnecessary idling.

<https://www.commercialfleet.org/news/van-news/2019/11/06/nissan-upgrades-nv300-and-nv400-vans>

<https://www.parkers.co.uk/vans-pickups/advice/euro-6-guide/>

Complete Music and Sound continues to aim to have no fossil fuel requirements by 2028 and will adopt whatever technology is most suited at that time.

We continue to avoid buying bulky and heavy flightcases for larger items of equipment – instead opting for lighter weight and slim protection which is still effective. Speakers, stands and backline are in padded covers, amps are in ABS flightcases. This helps keep transit volumes and weights down and directly reduces emissions. In the period covered by this report 4 hard flight cases were purchased because the very high value DJ equipment justified it. 11 soft cases were bought for a mixer, and stands and speakers, several bags were repaired.

Additional future goals:

We plan to move to HVO Hydrotreated Vegetable Oil next year and fully replace Diesel. We have now got prices and a viable method of delivery from a supplier. We have learnt about the benefits of HVO fuels which are profound and will eliminate more than half of our carbon footprint.

Unfortunately these fuels are not available from any North London filling station so delivery will be required and some careful planning. Furthermore, we do not want to invalidate the remaining 3 years of the 5 year vehicle warranty on the van. Last year several emails were exchanged with Nissan asking about whether they would warrant the use of these fuels. Whilst disappointingly they have not tested engines with such fuels they did not state warranty would be invalidated and the oil suppliers are very confident of compatibility so we are going to try this in coming year.

## **Electronics Manufacture**

The following goals have been achieved/maintained since previous report:

- No disposable batteries have been purchased – now 100% rechargeables (except button type batteries)
- No equipment accidental damaged
- Items repaired (including valve guitar amp, hi hat stand, many others).
- Zero electronic items to landfill

There are many issues around manufacturing of electronics that are well documented.

In order to ensure provision of best technology to run events, it is unavoidable that electronics are purchased.

These are the purchase policy guidelines, which were established several years ago...

- Carefully consider need for electronics purchase
- Look after equipment carefully
- Buy second hand where other business objectives are not compromised
- Carefully research purchase decisions and base purchase decisions on longevity, place/methods of manufacture etc.

- Repair equipment at cost of up to 66% of replacement value if over 5 years can be expected from item after repair
- Re-sell equipment no longer required
- Dispose of equipment at recycling centre if completely beyond repair after removing useful components
- Campaigning - Contact suppliers and potential suppliers to encourage responsible manufacturing processes.

These are the materials commonly used in electronics:

1. Conductors – i.e. Silver, Copper, Gold, Aluminum etc.
2. Semiconductors – i.e. Germanium, Silicon, GaAs etc.
3. Insulators – Plastics, Rubbers, Mica, Insulating Papers etc.
4. Magnetic materials – Iron, Silicon steel, Alnico, ferrites etc

SOURCE <https://www.electrical4u.com/electrical-engineering-materials/>

Neodymium is also used in speaker manufacture.

The EU now supersedes USA in terms of conflict materials legislation. The UK does not have a policy I am aware of, neither does China, and most of South East Asia.

<https://learningcenter.sourceintelligence.com/blog/eu-conflict-minerals-comparison>

3TG = Tantalum Tin, Tugnsten Gold

### **Packaging of Deliveries**

- Some companies use excessive or non-recyclable packaging for delivery of items.
- Large Bubbles – recycled
- Bubble wrap – re-used
- Cardboard – re-used or recycled
- “jiffy” style bags – separated for recycling or re-used
- Plastic wraps – recycled where possible otherwise goes to London Energy for incineration

Some manufacturers have been boycotted by Complete Music and Sound for excessive use of packaging since 2020. It is sometimes unavoidable but we also try to pick more local suppliers where possible. Any ebay purchases we check for suppliers within 50 miles before looking elsewhere. We avoid the two big distributors based in Netherlands.

### **Single Use Food related items**

It is common to require food and drink on or between working sites, which can lead to the over reliance on packaged food, purchase/consumption of bottles drinks, and use of disposable plates and cutlery.

- A re-useable bottle and cup is taken to all events.
- Re-useable (metal) cutlery is part of tool kit
- Food prepared at home is being increasingly taken to events to avoid “petrol station food” and associated packaging

- Vegetarian options are chosen more frequently
- Bottled water is declined

Goals: Monitor use of packaged foods.

## Vehicle Information

Nissan NV400 Euro VI d temp 2300CC Purchase Date 4/3021

30MPG (actual according to dash reading)

4/2021	31
4/2022	3500
4/2023	6900

## Physical Purchases Information

Items have been divided into categories based on value which will be presumed to loosely reflect materials involved to some extent.

Under £20 typically cables, accessories and other small items

£20-150 Often electronic devices or medium sized metal/ABS items. Eg. drum hardware, microphones, cases

Over £150 Often larger items or items that may include microprocessors and complex electronics, such as mixers, amplifiers, speakers, guitar amps, but may also include hardware stands and flightcases

	Actual Used or B stock	Actual New	Percent Used
Small	1	10	10%
Medium	4	12	25%
Large	6	4	60%

Additional Notes: Many of the small items were actually parts to repair cables or other items. Of the large items 3 items were stands and cases (which are difficult to source secondhand). So in fact only one large electronic items was purchased new.

## Delivery of goods

Express deliveries are less environmentally friendly. Likewise overseas deliveries have greater impact on environment than local deliveries. We will attempt to record this in more detail next year.

Express Delivery	Standard Delivery	Special Collection or delivery	Local Stockist	UK Mainland Stockist	EU Stockist
No Data	No data	No data	1	34	2

## Community, Education and Social

Discounts are offered to events that are charitable or meet other qualifying criteria.

We recognise there is a serious issue of misogyny and inequality in the sector and wish to encourage minority groups and women into the sector through appropriate attitudes and interactions.

### Further comments on Fuel

There are no Ethical Consumer Best Buys in Diesel and Petrol. "The real choice in this market is about how much of the stuff you use" Ethical Consumer, August 2021. Exxon Mobil come as an "avoid" (23<sup>rd</sup> August 2021. BP, Texaco and Jet score slightly higher than Shell and Esso, however Jet was seriously implicated in the Bayou Bridge pipeline and Dakota Pipeline that affect indigenous Americans. I was able to find anti slavery policy for BP and for Harvest, so Complete Music and Sound will try to use these suppliers more frequently than the others.

### Banking

In August 2022 we successfully transferred banking services to a building society that is both Carbon Neutral (Scope 1), aiming for Scope 3 by 2028 and has a reasonable policy on ethical investments.

## Key Actions from Previous Year

1. Seek information on supply chain carbon emissions. **Attempted but unsuccessful**
2. Change bank **ACHIEVED**
3. If phone beyond repair, try fairphone **ACHIEVED**
4. Provide more information to customers on greener events **ACHIEVED**
5. Monitor all purchases for environmental impact **IN PROGRESS**
6. Seek alternatives to Diesel Generators for events **ACHIEVED**
7. Test equipment to provide more accurate real world information about electricity requirements at events where diesel generators are being used **IN PROGRESS**
8. Complete more research into electronics manufacture and supply **CARRY OVER**
9. Lobby on PVC in cabling **CARRY OVER**
10. Reduce internet usage year on year by 5% **Not Achieved**

## Appendix 1: Supplier Modern Slavery statements:

Complete Music and Sound made significant purchases from the following suppliers (or purchased used equipment linked to their brands) this year.

<https://shop.fairphone.com/en/?ref=header>

<https://broadband.yourcoop.coop/>

Neutrik – awaiting reply

<https://en-uk.sennheiser.com/modern-slavery-act-2018>

[https://www-europe.nissan-cdn.net/content/dam/Nissan/gb/legal/NMGB Modern Slavery Statement September 2020.pdf](https://www-europe.nissan-cdn.net/content/dam/Nissan/gb/legal/NMGB_Modern_Slavery_Statement_September_2020.pdf)

[https://www.shure.com/damfiles/default/emea/shure\\_uk/modern-slavery-statement.pdf-b5f9d3e891394eff5ba368c344aa80bc.pdf](https://www.shure.com/damfiles/default/emea/shure_uk/modern-slavery-statement.pdf-b5f9d3e891394eff5ba368c344aa80bc.pdf)

<https://www.ethicalconsumer.org/company-profile/sony-corporation>