OUTSMART

SUSTAINABILITY IN OUT OF HOME

LOW CARBON, LOW POWER

An analysis of OOH energy consumption and CO_2 emissions

Foreword

This new report undertaken with KPMG finds that Out of Home (OOH) is the most sustainable advertising platform for brands, operating at the lowest power consumption and producing the least amount of carbon emissions when viewing, per impression. All OOH in the UK represents just 0.067% of total power consumption in the UK and its carbon footprint makes up less than 0.83% of total emissions produced by the information communication technology (ICT) sector, which covers any product that will store, retrieve, manipulate, transmit, or receive information electronically in a digital form e.g. personal computers, tablets, smart phones, televisions and email.

The report follows a separate study with PwC, which found that the sector has increased its use of renewable electricity to over 90% and its use of recyclable materials by 46%*. With many OOH media owners being signatories to Ad Net Zero, the OOH industry is making strides on its journey towards net zero emissions.

Both reports highlight and measure the good work done so far, uniquely achieved by the sector's end-to-end control of operations, from supply chain to an advert's delivery on digital screens. It's exciting to see the sector accelerate sustainability goals by leveraging procurement and product innovation.

Tim Lumb
Director of Outsmart

*Source: PWC, 2021

Introduction & Methodology

Outsmart, the trade association representing the OOH industry in the UK, has commissioned KPMG to produce a report looking at the sustainability of OOH advertising in comparison to other media types.

The analyses cover the six main advertising media channels: OOH advertising, online/digital, television, email, radio and print (newspapers and magazines). The methodology covers a comparable scope i.e. the stages in the life cycle assessed are identical.

In looking at the power consumption and carbon footprint of each media type, KPMG measured the comprehensive life cycle of media including the manufacturing of viewing and display support, the storage of advertising content, an advert's transportation and distribution, the viewing of the advertised content, and the end-of-life reading / display media.

The methodology used is based on standard sources (including official national statistics, ADEME and The Shift Project) and reconciles any discrepancies between them. Where there is a lack of consensus on certain data sources, two cases have been established based on low and high assumptions for each media. To measure the carbon footprint of each media, greenhouse gas emissions have been calculated for the OOH industry broken down by Classic and DOOH. The basis of this calculation is the data shared by a representative sample of Outsmart members who collectively operate 69% of all OOH panels, with the remainder estimated based on this robust sample.

Glossary of terms:

OOH - entire Out of Home industry
Classic - paper/vinyl formats
DOOH - digital Out of Home formats

Contributing media owners

JCDecaux   global _Making everyone's day brighter_   Clear Channel   O|O OCEAN

Key findings:

1. Per impression, OOH emits less carbon than all other media measured.

2. OOH is 3.3% of advertising power consumption and less than 3.5% of advertising carbon footprint.

3. Control over supply chain and end-to-end operations enables OOH media owners to directly improve sustainability more easily than other advertising channels.

4. OOH is a more sustainable advertising platform for brands than other media types.

How OOH stacks up per £ spent

This chart looks at power consumption divided by the advertising spend of each media to demonstrate the average watt hours generated by each media per £ invested in the media.

OOH consumes 147 watt hours per £1 of advertising revenue

No power is consumed through reading press

537 *watt hours*

332 *watt hours*

197 *watt hours*

134 *watt hours*

147 *watt hours*

0 *watt hours*

Press   Internet   OOH   Radio   TV   e-mail

Figures represent number of watt hours consumed per £1 of ad spend
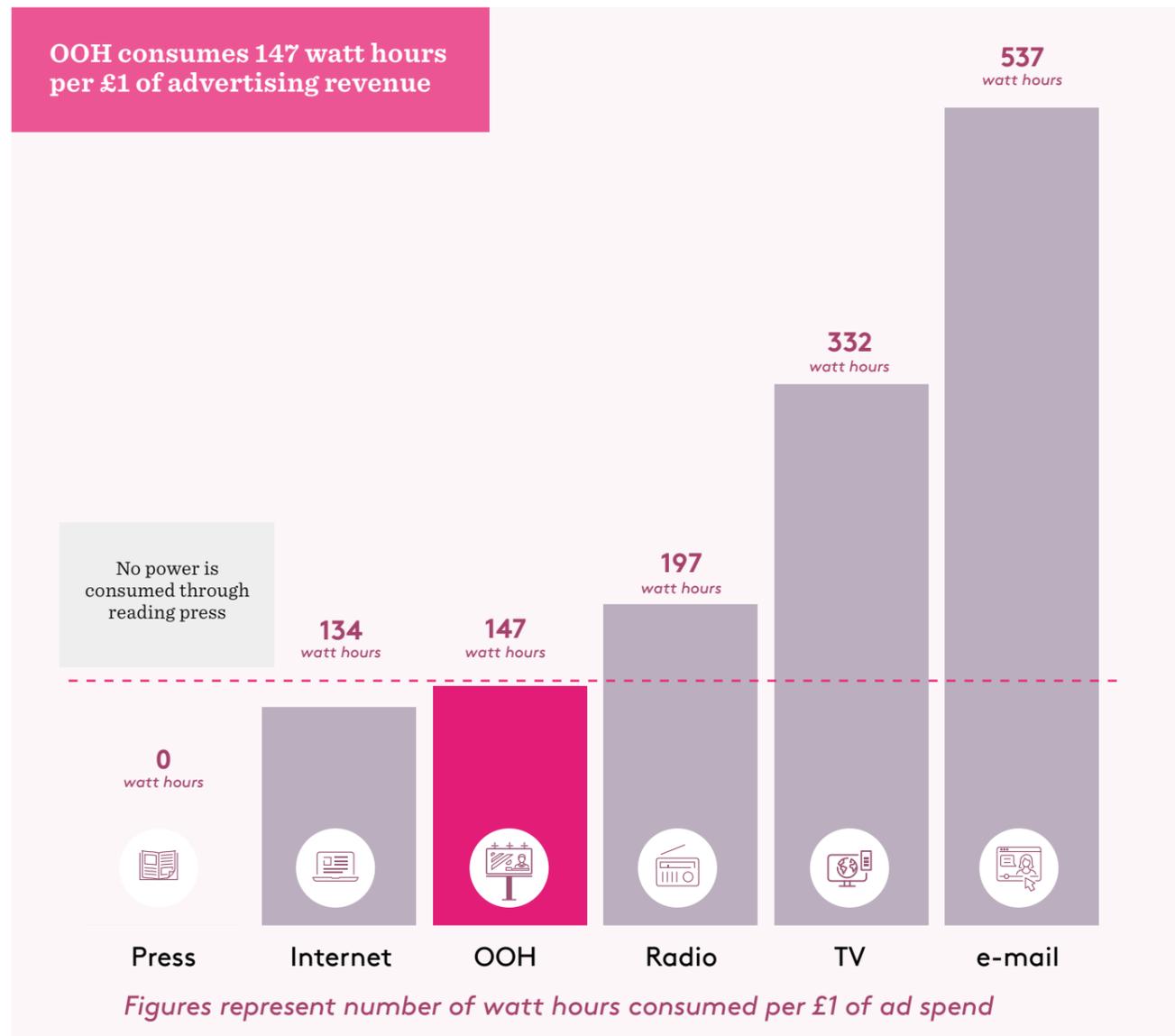
Keep emissions low with OOH

The carbon footprint of OOH in the chart below is based on submitted data, rather than estimated data. Even when we take into account the low case scenarios of other media, OOH remains one of the smallest media in terms of carbon emissions generated.

OOH emits 80 grams of CO_2eq per £1 of advertising revenue

Internet **73**$_{gCO_2eq}$ index 91 v OOH
          79$_{gCO_2eq}$ index 98 v OOH

OOH   **80**$_{gCO_2eq}$

Radio   **74**$_{gCO_2eq}$ index 93 v OOH
          97$_{gCCO_2eq}$ index 121 v OOH

TV   **111**$_{gCO_2eq}$ index 139 v OOH
          147$_{gCO_2eq}$ index 183 v OOH

Press   **329**$_{gCO_2eq}$ index 410 v OOH
          460$_{gCO_2eq}$ index 580 v OOH

e-mail   **1111**$_{gCO_2eq}$ index 1390 v OOH
          1313$_{gCO_2eq}$ index 1640 v OOH

Figures represent grams of CO_2eq per £1 of ad spend

Key:

■ Low case
■ High case

Note: Paper making and printing phases are excluded in order to be comparable with other media, where only <run> phases are considered (e.g manufacturing phase has not been accounted for)
Sources: OFCOM (2022), PJ Solomon, KPMG GSG analysis

Notes 1: Corresponds to the weighted average of low cases for Classic and DOOH (0.10-0.22), Note 2: Corresponds to the weighted average of low cases for Classic and DOOH (0.36-0.38) Sources: ADEME, Senate, ARCEP, SRI Reference, ARCOM, Mediametrie, EcoProd, INSEE, BBC, ARCOM, Ecograf, National Geographic, Research and Analysis GSG. (gCO2 eq. / year / contact 2022), KPMG GSG analysis, PJ Solomon, OFCOM (2022)

Mass impact media with low power output

OOH is a one-to-many platform, with each advertisement being seen by many people. This makes it an incredibly power efficient medium for reaching large numbers of people.

Classic: 0.10 - 0.41 Wh / impression
DOOH: 0.55- 0.90 Wh / impression

No power is consumed through reading press

Press	OOH	Internet	Radio	e-mail	TV
0 watt hours	0.47 watt hours	1.85 watt hours	2.21 watt hours	4.50 watt hours	5.94 watt hours

Figures represent number of watt hours consumed per impression

Note: Paper making and printing phases are excluded in order to be comparable with other media, where only <run> phases are considered (e.g manufacturing phase has not been accounted for)
Source: OFCOM (2022), PJ Solomon, KPMG GSG analysis

Per impression OOH emits less carbon than all other media measured

The chart below has been calculated by dividing carbon footprint by audience size of each media. OOH emits less than half of the nearest competitor media.

Classic: 104 gCO$_2$eq. / impression
DOOH: 66 gCO$_2$eq. / impression

Media	Value
OOH	0.25 gCO$_2$eq
Radio	0.83 gCO$_2$eq
Radio	1.09 gCO$_2$eq
Internet	1.00 gCO$_2$eq
Internet	1.08 gCO$_2$eq
TV	1.99 gCO$_2$eq
TV	2.62 gCO$_2$eq
Press	8.28 gCO$_2$eq
Press	11.59 gCO$_2$eq
e-mail	9.30 gCO$_2$eq
e-mail	10.98 gCO$_2$eq

Key:
- Low case
- High case

OOH/DOOH figures might be underestimated as Outsmart's impact data accounts for a visibility factor

Notes: (1) Corresponds to the weighted average of low cases for OOH and DOOH (0.10-0.22), (2) Corresponds to the weighted average of low cases for OOH and DOOh (0.36-0.38)
Sources: ADEME, Senate, ARCEP, SRI Reference, ARCOM, Mediametrie, EcoProd, INSEE, BBC, ARCOM, Ecograf, National Geographic, Research and Analysis GSG. (gCO$_2$eq. / year / contact 2022), KPMG GSG analysis, PJ Solomon, OFCOM (2022)

Controlling and accelerating change

OOH media owners are committed to net zero and many are members of the Advertising Association's Ad Net Zero initiative, committing to reducing emissions from advertising business operations.

Raw materials, manufacturing and end-of-life

- Prioritising the recovery or recycling by service providers using emissions reduction commitments
- Maximising the recycling rate of materials from panels
- Reusing and repurposing materials across estates
- Selecting suppliers based on their environmental credentials and sustainable product offering
- Ongoing upgrades of digital furniture with more efficient models
- Conversion to more efficient lighting using LEDs

Transport and distribution

OOH panels need to be maintained and cleaned; posters are posted every two weeks.

- Optimisation of logistics routes and vehicle loading
- Switching to fleets of light utility vehicles with an alternative engine (electric, CNG, hydrogen, HVO fuel blend)

Use phase

The vast majority of the carbon footprint of OOH is created in the construction and installation of OOH furniture. Innovations to reduce the use of raw materials and use a greater share of recyclable materials greatly reduces this.

- Innovation at each component level
- Prioritising recyclable and energy efficient materials in furniture design and phasing out non-recyclable materials
- Swapping steel casing wraps around panels for more environmentally friendly materials or using recyclable plastic in furniture builds
- Printing on recycled paper and innovating in vinyl type and end-of cycle process
- The industry has increased the share of renewables to over 90% while maintaining similar levels of electricity consumption
- Adaptation to ambient light level according to time of day and season
- Powering down digital and analogue furniture from 1 a.m. to 6 a.m
- Building out creative briefings for agencies to design with the environment in mind

global
Making everyone's day brighter

Global is driving environmental sustainability across its business to create a brighter future for everyone. Global achieved a 10.4% carbon reduction in 2023 from 2022, certified by Planet Mark. Since 2021, all managed sites use 100% renewable energy, and a Zero Waste to Landfill policy ensures responsible waste management.

Launched in 2023, Global's Outdoor Sustainability Initiative, across its classic estate, has reduced carbon in business operations and supply chains through streamlining operations and developing lower carbon advertising materials. Already, the carbon footprint of Global's bus boards has reduced by as much as 23%, as certified by CarbonQuota.

Clear Channel

Clear Channel UK is on a mission to deliver more impact for brands, with less impact on the planet. Since 2008 Clear Channel UK has reduced its carbon footprint by 83%. Carbon cutback initiatives include the wholesale replacement of fluorescent lighting with LED alternatives, the introducing of solar lighting at bus stops and the installation of new digital displays which are 50% more energy efficient.

Clear Channel UK is also replacing its entire fleet with zero emissions vehicles. Clear Channel UK are committed Ad Net Zero members and expect to be carbon net zero by 2030 across scopes 1 & 2.

Sources: Global Goodness report 2023, Clear Channel 2022 ESG report

OCEAN

Since 2019, all electricity sourced and paid for by Ocean is 100% green from sustainable suppliers. A member of Ad Net Zero, Ocean is committed to reducing carbon emissions by 42% by 2030 and has a policy to reach net zero by 2040 - measuring Scopes 1, 2 and 3, all in line with the Paris Agreement. Ocean's sustainability advertising fund 'Drops in the Ocean' donates 2% of annual revenue in screen value to environmental charities and non-profits that are working hard to save the planet. As of 2024, Ocean has partnered with Pinwheel, a platform that connects brands to the most impactful carbon removal and biodiversity projects. Media agency partners can get involved by voting for their favourite project, and funds will be allocated accordingly. Ocean also works with the Wildlife Trust to rewild parcels of land in their UK estate. There are currently 18 and counting.

KBH

KBH has been part of the Mayor of London's Business Climate Challenge as part of their commitment to sustainability and as a result reduced their carbon usage by a huge 40% in 2023 compared to the pervious year.

Following on from this they moved offices early in 2024 to further consolidate their commitment to sustainability by making their new home a carbon neutral B-Corp certified premises operated by Uncommon who are fully committed to operating sustainable workplaces.

JCDecaux

JCDecaux's sustainability commitment is rated by leading international bodies including: CDP (A), EcoVadis (gold medal status), MSCI (AA), FTSE4Good (3.4/5) and Sustainalytics (13.7). In 2022, JCDecaux published its ESG roadmap for 2030 and in 2023 unveiled its Climate Strategy.

JCDecaux is committed to achieving Net Zero Carbon by 2050, through a Science-Based Targets (SBTi) trajectory. By 2030 reduce Scope 1 and 2 emissions by at least 60%, reduce Scope 3 emissions by 46%, by 2050 reduce by at least 90% the emissions of scopes 1, 2 and 3 vs. 2019. Since 2022 JCDecaux has covered 100% of its power requirements from renewable sources.

LIMITEDSPACE

78% of Limited Spaces Orbit large format digital OOH network is powered by renewable energy sources. 73% of the digital screens use energy efficient LED light bulbs which reduce energy usage by up to 40%, and their digital expansion is based on the installation of only LED technology.

Their banner portfolio features a PVC free fabric-based product with no chemical 'nasties' going back into the environment through landfill, it's recyclable reducing the numer of new materials needed to post new campaigns and also reduces transport carbon because the material easily folds into standard postage sizes, meaning no bespoke courier vans are needed.

Sources: Ocean website, JCD Strategic ESG Roadmap to 2030

Sources: KBH, Limited Space

open media ◆

Open Media is the first UK and European OOH media owner. The first UK and European OOH media owner to gain certification as a B Corp with an impressive overall score of 84.2 Open Media is leading the way in sustainability with 65% of their portfolio running on 100% renewable energy tariffs across multiple providers including Scottish Power and Octopus.

They are committed to having a positive and lasting impact on the planet for generations to come.

UBIQUITOUS
ICONSONICONS

Through their taxi advertising network Ubiquitous is helping brands achieve a greener OOH media strategy. The vinyl used to wrap their taxis is recycled post campaign, and it is turned into an aggregate used to make roads as part of their commitment to zero landfill.

Ubiquitous has also converted 50% of their inventory from diesel vehicles to electric hybrids and will exclusively recruit Electrics Hybrids moving forward.

What this all means for advertisers & media owners

Sustainability in advertising is a big focus for advertisers and media owners, and this report can help to inform choices when it comes to a brand's sustainability efforts. Not only does OOH provide a platform for brands to promote green initiatives, but it also allows them to execute more environmentally friendly campaigns.

- Per impression, OOH emits less carbon than all other media measured.

- OOH is 3.3% of advertising power consumption and less than 3.5% of advertising carbon footprint.

- Control over supply chain and end-to-end operations enables OOH media owners to directly improve sustainability more easily than other advertising channels.

- OOH is a more sustainable advertising platform for brands than other media types.

Indeed, OOH advertising is quickly becoming one of the most socially responsible media channels available for brands. A recent study between Outsmart and Legacy reported that OOH is in a strong position across several key ESG metrics, performing especially well across environmental factors.

A 2023 report from PwC and Outsmart found that the UK OOH sector contributed £411m to support public services, infrastructure, communities and employees in 2021 - representing 46% of its advertising revenue. PwC also estimated that a further £29m helped support charities and communities through donations, heavily discounted or donated media space, and staff hours given to charity.

Of course, sustainability efforts have no end point, but the OOH sector is committed to improving and innovating across environmental and social sustainability, as shown in the initiatives from Outsmart members.

Thank you

Thank you for taking the time to read our report.

Reach us at info@outsmart.org.uk with any further queries.

A set of Appendices to this report is available on request.