

AN ADVERTISER'S GUIDE TO CARBON EFFICIENCY

Industry best practices for better business outcomes

HIDDEN CLIMATE RISKS IN ADVERTISING

Advertising and marketing operations represent 2-3% of global greenhouse gas emissions¹. Industries receiving significant attention for their impact on climate change, such as aviation, represent a similar share of global emissions.

For many organisations, the impact can often be significantly higher. For instance, a leading beauty brand recently discovered that their digital footprint contributed the third-highest emissions after materials and packaging².

Regardless of the actual share, every source of emissions will be under increasing scrutiny, as legislation forces more companies to declare their emissions and strategy for reduction. In this context, advertising offers clear opportunities to cut emissions without impacting effectiveness, and so should be considered a key component of an organisation's decarbonisation roadmap.

As you will see in this guide, reducing advertising's emissions can provide mutual benefit for business and the planet. It helps to identify waste within the supply chain, often increasing campaign performance. There are also significant brand benefits, with Kantar research showing sustainability perceptions add up to 10% to the value of brands in the global top 100³.

¹ [Allianz Research, More emissions than meet the eye; Science Impact, The Real climate and transformative impact of ICT](#)

² [Ad Net Zero Showcase Session with Impact Plus, 2025](#)

³ [Kantar BrandZ data, 2024](#)

TAKEAWAY

If your brand has a robust public-facing sustainability programme, you need to ensure you take inventory of emissions coming from advertising to evaluate the risk and future-proof your programme.

Advertising-heavy organisations in particular should expect to have materially significant sources of carbon emissions from advertising that they may not currently be measuring.



FUTURE PROOFING YOUR PROGRAMME

Several guides have been published that address a specific area of advertising emissions, such as production and media, in far greater depth than this guide.

Instead, this guide's intention is to identify ten initiatives that have been demonstrably adopted by brands with positive business results already, from which to start trialling your emission reduction efforts.

¹AdGreen's 2025 Annual Report

²Scope3

HOW DOES ADVERTISING CREATE EMISSIONS?



The mean impact of producing a 30 second ad was 9.2 tCO₂e¹

Highest Source: PEOPLE TRANSPORT
71% of all emissions recorded by AdGreen users were from air travel.



Emissions per 1,000 programmatic ad impressions in Australia is approximately 293.3gCO₂PM²

Highest Source: SERVERS (ENERGY)



Advertisers hold significant influence over the entire advertising ecosystem and are in a unique position to drive meaningful change.

By taking proactive steps to decarbonise your campaigns, you set clear expectations and standards for agencies, media partners, and other collaborators. This leadership will not only ensure that sustainability becomes embedded in every phase of your advertising process, but also fosters a broader industry shift toward reducing the collective carbon footprint of advertising as a whole.

Carbon Efficiency Best Practices Checklist

- 01** Create an advertising baseline

Carbon efficiency measures that support returns on your ad investment

- 02** Right-size your creative on digital channels
- 03** Reduce wastage in your digital advertising stream
- 04** Get precise with your online targeting

Carbon efficiency measures that support cost savings

- 05** Reduce travel during production
- 06** Re-use hard drives during asset storage

Engage your Customers

- 07** Show sustainable behaviours in every campaign
- 08** Mind your Greenwashing

Strengthen your partnerships during the transition

- 09** Ensure OOH displays are produced with responsible materials
- 10** Evaluate your supplier base



01 CREATE AN ADVERTISING EMISSIONS BASELINE

The World Federation of Advertisers (WFA) identified that one of the top five barriers to sustainable transformation is the absence of trusted and consistent measurement approaches¹.

Media emission calculators, in particular, have historically been found to vary by 6x to 20x, highlighting the urgent need for standardisation. To address this, Ad Net Zero Global, in collaboration with its Supporters and climate scientist partners, have been developing the [Global Media Sustainability Framework \(GMSF\)](#)—a voluntary industry standard designed to enable consistent and comparable GHG measurement across media channels including digital, TV, print, audio, outdoor, and cinema. The framework also aims to reduce inefficiencies for media suppliers by introducing standardised reporting forms and simplifying information requests.

Ad Net Zero recommends adoption of these inexpensive tools:

EMISSIONS FROM	CAN BE MEASURED USING	AT MINIMAL EXPENSE
Production	AdGreen	Free to use. Time required to source data.
Media Planning & Buying	Follow the GMSF and request that your media partners adopt the standardized equations in to their calculator or work with a sustainable adtech partner.	Cost is Variable for Sustainable Media Tech Vendors. GMSF is open source.
Events and Activations	TRACE by isla	Approximately \$500 per event.

¹WFA's Sustainable Marketing 2030

In addition to enabling more comprehensive reporting of scope 3 emissions, future best practices are likely to include two key indicators to effectively manage emission reduction efforts:

01

The total volume of carbon emissions associated with your brand's advertising in a given year. This KPI supports tracking reduction in absolute value over time, year after year and therefore demonstrating real environmental progress.

02

A unit value, such as emissions per 1,000 ad impressions, \$1,000 ad spend, energy-efficiency per \$1,000 etc. that makes it possible to compare campaigns, activations, or contexts with each other.



Carbon efficiency measures that support returns on your ad investment :

02

RIGHT-SIZE YOUR CREATIVE ON DIGITAL CHANNELS

High-resolution, visually rich creative that is first viewed on large screens is impressive during production, however these data-heavy assets aren't necessary for digital channels where content is typically viewed by consumers on smaller laptops or mobile devices. Shorter, lighter assets are optimal in these circumstances to reduce load times and enhance site responsiveness, possibly improving engagement.

Compressing digital creative before deployment can reduce its carbon footprint by up to 30% without compromising consumer experience. A world leader in beauty collaborated with Impact Plus to optimize video asset weight and use carbon-wise targeting—delivering ads over Wi-Fi rather than cellular networks—and achieved a 17% reduction in greenhouse gas emissions for that campaign, with no loss in consumer engagement or campaign results¹.

Similarly, Desperados (a Heineken brand) implemented comparable strategies and achieved a 29% reduction in emissions, again with no dip in brand performance.

The following resources can support your teams when testing this opportunity:

- Checklist for creative teams on Page 23 of [Impact Plus: Reducing the Carbon Impact of Digital Advertising](#)
- Tool recommendations by IAB Tech Lab on Page 8 of [The Sustainability Playbook: Starter Guide for a Sustainable Programmatic Marketplace](#)

¹ Ad Net Zero Showcase Session with Impact Plus, 2025



03

REDUCE WASTAGE IN YOUR DIGITAL ADVERTISING STREAM

By minimizing duplication of requests and prioritizing ad placement on high quality sites (eliminating made-for-advertising websites from your mix), a brand can cut carbon, improve click through rate, save money and improve overall performance.

Research from Ebiquity and Scope3 reveal that 15% of brand ad spend is wasted on low-efficacy, high carbon websites¹. An analysis of 500m impressions found that buying high-quality ad placements resulted in:

- Cutting carbon by 29%
- Driving a 52% higher CTR
- Lowering eCPM by 3.5%
- Lowering CPA by 2.6%

It doesn't have to be a drastic adjustment - 2% of sites targeted in brand campaigns have been found responsible for driving 50% of emissions. Work with your media partners to use supply path optimizations (SPO), leverage curated marketplaces, analyze global placement IDs (GPID) and/or partner with sustainable tech vendors to prioritize the most direct, efficient, and high-quality paths to inventory that reduce duplications.

¹Scope3, The Measurable Impact of Sustainable Media Buying

04

GET PRECISE WITH YOUR ONLINE TARGETING

Investing in reaching the right consumer, at the right time, on the right platform not only maximises the efficiency of your marketing spend but also significantly reduces carbon emissions through the elimination of ineffective impressions. Research from Impact Plus shows that up to 80% of a digital campaign's emissions can be cut simply by adjusting delivery timing—for example, serving ads during off-peak hours and when users are connected to Wi-Fi instead of cellular networks, which consume far more energy for data transfer. This smarter approach delivers better performance with a lighter environmental footprint.

- The [Ad Net Zero Action Guide to Reduce Media Greenhouse Gas Emissions](#) covers additional opportunities to reduce emissions in the media supply chain.
- Read the [Spotify Wrapped Case Study](#) that saw a 38% reduction in carbon intensity per view



REMOVING WASTE & INCREASING PERFORMANCE

CASE STUDY

When a major global financial institution wanted to lower its advertising-related carbon footprint, Hearts & Science found a solution using granular emissions data. This enabled the team to fine-tune its media buying strategy, eliminating wasteful or high-emission inventory without compromising campaign performance.

In partnership with Index Exchange and using Scope3's media emissions data, the campaign prioritized lower-emission inventory and automatically blocked inefficient media, ensuring high-quality, sustainable advertising.

Detailed, per-placement insights—tracking refresh rates, lazy loading, and other efficiency factors—helped Hearts & Science refine its media mix without sacrificing results. Over a four-week campaign, the agency delivered impressive performance gains alongside a major emissions reduction, proving that sustainability and strong performance can go hand in hand.

ENHANCED ENGAGEMENT

56% higher click-through conversion rate

13% higher viewability (vs prior campaign)

REDUCED POLLUTION

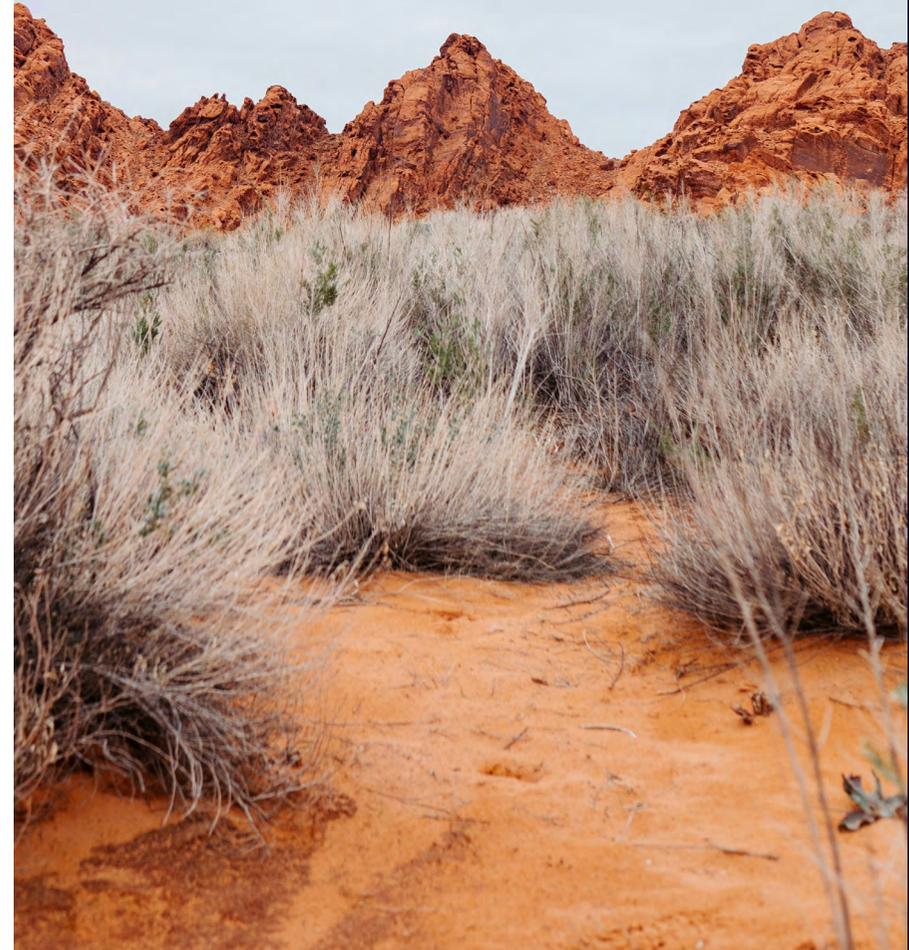
51% Lower carbon emissions per impression (vs. AU benchmark)

MAXIMIZED ROI

70% Lower cost per land (vs. prior campaign)¹

“It’s results like these that encourage us continuing to expand our use of lower-emission media solutions. This campaign exceeded our performance expectations and supported our client’s emissions reduction goals. It’s a win-win.”

**ASHLEY WONG, CHIEF DIGITAL & INNOVATION OFFICER,
HEARTS & SCIENCE AUSTRALIA**



Carbon efficiency measures that support cost savings :



05

REDUCE TRAVEL DURING PRODUCTION

The average emission cost of producing a TV ad is 6 tonnes of carbon - equivalent to the global average of a person's carbon footprint for a whole year. On average, 60% of emissions from production come from air travel¹.

- See 10 Actions for a Greener Shoot on Page 6 of [Sustainable Production Best Practices Starter Guide](#)

06

RE-USE HARD DRIVES DURING ASSET STORAGE

Unlike the Film and TV Industry, advertising tends to use hard drives as single-use items. The carbon associated with an average 5TB hard drive from mining, manufacture to responsible disposal is around 200 - 250kg of CO₂e - a significant percentage of the carbon footprint of an average production. When campaign assets are ready for long term archive, instead request that data be stored on twin LTO tapes to generate a carbon savings of 90%. All Enterprise Class Hard drives can then be wiped, tested, and reused multiple times during the manufacturer's declared warranty period.

- See FAQs on Page 2 of the [Hard Drive Re-Use Best Practices Guide](#)

¹AdGreen's 2023 Annual Report

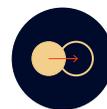


Opportunities to engage your customers :

Currently just 10% of ads contain an explicit environmental or sustainability message despite -



Climate and environment remaining people's top concerns globally (42%), ahead of international conflicts and war (38%) and the Economy (25%)¹;



84% say they would be more likely to buy from a company that practices sustainable advertising and 25% of people surveyed say they would opt out of advertising which aren't produced or delivered sustainably²; and



Ads communicating a sustainability message increases ad distinctiveness (+12 with sustainability message vs. without) and ad meaningfulness (+6 vs. without)¹.

This may be because 60% of brands are not yet confident enough to tell their sustainability story. However, demonstrating sustainable behaviours in campaigns is something every advertiser can do with minimal greenwashing risk, no matter the sustainable attributes of their product or service.

¹Kantar's Sustainable Transformation Work

²Dentsu & Microsoft, The Rise of Sustainable Media



07

SHOW SUSTAINABLE BEHAVIOURS IN YOUR CAMPAIGNS

Every Brief Counts is a voluntary, science-backed programme from Ad Net Zero that helps advertisers and agencies identify opportunities to normalise high-impact sustainable behaviours with consumers in the background of their campaigns. For example, if someone in your ad is unpacking groceries, drinking coffee, or getting takeaway – ensuring its from a reusable container normalises greener lifestyles with everyday Australians without disrupting production.

A great example of this approach is a collaboration between [Netflix and General Motors](#) where only EV vehicles will be used in Netflix Shows moving forward.

Another great example of this in action is [LG's Life is Good Campaign](#) which normalises upcycling clothing, while promoting Washing Machines.

- Learn about the highest-impact behaviours in the **The Every Brief Toolkit** (exclusively for Ad Net Zero Supporters)
- Get inspired by award winning work with the [Campaign Ad Net Zero 2024 Winners Book](#)

“Entertainment has a huge impact on culture. We want to make EVs famous on streaming, small and silver screens to build an EV culture through storytelling that incorporates the experiences of driving and owning an EV,”

GM GLOBAL CHIEF MARKETING OFFICER DEBORAH WAHL

“At Netflix, we create shows and films that can influence culture and spark meaningful conversations... We know that entertainment can drive fandom and inspire connections... GM is a cultural leader in the auto industry and we are proud to partner with them in their efforts by amplifying the presence of electric vehicles.”

NETFLIX CHIEF MARKETING OFFICER MARIAN LEE



08

MIND YOUR GREENWASHING

As brands increasingly promote more sustainable products and services, our industry has an important role to play in building trust and understanding about environmental issues with consumers.

Advertisers who overstate or falsify environmentally responsible practices risk fines, loss of consumer trust, and long-term brand damage. Take this responsibility seriously, not by talking about the issues less, but by ensuring your teams understand the regulations and how to share your wins effectively.

- The Advertising Standards Authority (ASA) released [updated guidance](#) in early 2025 to provide clearer direction on making factual and transparent environmental claims that consumers can interpret correctly.
- [KANTAR's 2024 Better Futures Report](#) (Page 28+) offers incredible insights in to defining consumer perspectives on greenwashing and effective environmental messaging.



Strengthen your partnerships during the transition:

09

ASK ABOUT RESPONSIBLE ASSETS FOR OOH

Although out-of-home (OOH) advertising can have a smaller carbon footprint than digital media, there are opportunities to reduce its environmental impact by improving material choices, energy use, and end-of-life disposal practices. OOH media owners are constantly experimenting with new asset interventions, but may struggle with supply and/or pricing as these innovations become more mainstream.

You can support these efforts by asking:

- What are the media emissions of my campaign(s)?
- How can media solutions and/or sustainability considerations be integrated in to the schedule?
- What alternatives to PVC (a plastic that is carbon-intensive to produce and difficult to recycle), are available - such as polypropylene (PP) or polyethylene (PE) which tend to be lighter and more recyclable?
- Is there opportunity to use water-based, soy, or low-VOC inks and glues?
- Are we able to avoid laminated or plastic-coated paper (unless it's necessary for durability)? if not, can it be separated for recycling?
- Is FSC-certified or recycled paper stock available?
- Is end-of-life recycling available with in-market partners?
- Can substrates be reused across campaigns?
- Are digital screens powered by 100% renewable energy?
- Are screens dimmed or turned off during low-traffic hours?



10

EVALUATE YOUR SUPPLIER BASE

Simple efforts such as surveying your creative and media agency partners and/or adding weighting to the RFP during procurement supports your efforts to manage emissions. Not only does research by McKinsey show that organisations with strong ESG performance are more likely to drive innovation¹, but prioritising suppliers that are already engaged in low-carbon production and energy-efficient media delivery means you're able to benefit from their existing expertise. Without assessing your suppliers' environmental performance, you risk partnering with agencies that lack the willingness or capability to reduce emissions—undermining your own brand's sustainability goals. Finally, surveying is important because it signals to your suppliers what's important to you and where you want them to head, so they are able to invest in future-proofing your relationship.



Consider using [Ad Net Zero's GMSF Enterprise Level Data Request Form](#) as a template to request key information on their sustainability efforts.

¹McKinsey & Company, [More than values](#)



Familiarize your teams with guidance available to support decarbonization efforts

Ad Net Zero and other organisations who share our vision are consistently publishing and updating guidance to support decarbonisation across the Ad Net Zero Pillars. These guides provide a deeper analysis and additional opportunities for addressing carbon emissions within advertising.

ACTION	GUIDES
01 Operational Emissions	Climate Action Toolkit Sustainable Business Council Guides
02 Production Emissions	Ad Net Zero Sustainable Production best practices Starter Guide AdGreen Resource Guides GreenLit Resources for Film
03 Media Emissions	Ad Net Zero Action Guide to Reduce Media Greenhouse Gas Emissions Global Media Sustainability Framework (GMSF) IAB Tech Lab Sustainability Playbook
04 Event Emissions	Sustainable Events Starter Guide
05 Support more sustainable behaviours	The Every Brief Toolkit (exclusive to Supporters) KANTAR Better Futures Step Zero Sustainable Behaviours Library



Ad Net Zero has launched in global markets that amount to over 50% of global ad spend.

Our ambition is to reduce the carbon impact of developing, producing, and running advertising to net zero. We need every company and individual in our industry to join us in this effort in order to normalise a more sustainable approach to advertising.

As a Supporter you and/or your Agency Partner will be provided with:

- Opportunity for your representative(s) to join Ad Net Zero Working Groups;
- Access to tools and resources to support decarbonisation;
- Regular updates on important industry developments;
- Invitations to Ad Net Zero events; and
- Recognition across materials that your company is part of the Ad Net Zero community.

AD NET ZERO 
ALL FOR NONE

Become a Supporter of Ad Net Zero



Please email us at general@adnetzero.com.au for more information about becoming a Supporter.
