

Pulse Report: environmental claims in ads

Understanding the prevalence, patterns and risks of environmental claims in UK online advertising

June 2026



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1. Executive summary

This report examines how frequently environmental claims appear in UK online advertising, and how they are used, based on analysis of ads captured by the ASA between September and November 2025. Our analysis examines the prevalence and framing of environmental claims across the dataset. Please note that it makes no assessment of whether individual ads comply with the Code.

Environmental claims in online ads are relatively rare, but those that do appear are often high-risk due to the use of absolute terms.

In practice, environmental claims appear in around 1% of ads. However, where they do appear, they are disproportionately likely to rely on broad or absolute environmental claims – for example, terms such as “eco-friendly”, “sustainable” and “carbon neutral”, which imply that a product, service or business is environmentally beneficial overall. These types of claims typically require a high level of substantiation under the CAP Code and therefore carry greater risk for the businesses making them.

The potential regulatory risk is less about how often environmental claims appear, and more about how they are framed. Across the dataset, around three-quarters of environmental claims were absolute. While this pattern persists across sectors, the language used to convey these claims varies depending on the product, service and context.

This reinforces a key takeaway from the ASA’s ongoing work: absolute or unqualified terms are more likely to mislead. Businesses should aim for more qualified, evidence-backed green claims instead, helping consumers make informed choices while reducing the risk of misleadingness. To support advertisers in this area, CAP will shortly be publishing new guidance, *Green-speaking with confidence*, setting out practical examples of ‘what good looks like’ when making environmental claims in advertising.

These findings sit within a broader discussion about “greenwashing” and “greenhushing” – terms often used to describe, respectively, the use of misleading environmental claims, and the reluctance to make them at all.

Environmental claims can be made in a compliant and impactful way, particularly where they are appropriately qualified and supported by evidence. However, the continued widespread use of broad and often absolute environmental claims suggests that there remains some distance between the types of claims the ASA recommends in order to maximise their likelihood of compliance with our rules, and how environmental messaging is being applied in practice.

The analysis also shows that environmental claims are not confined to a small number of advertisers. While only 4% of advertisers made at least one environmental claim, those claims are distributed across a broad range of sectors and advertisers.

Key patterns and claim types

The analysis highlights a number of recurring patterns in how environmental claims are being used across different parts of the market. In sectors such as food and agriculture, fashion retail and waste and recycling, environmental claims are more likely to rely on broad or absolute language. By contrast, sectors such as utilities and transport more frequently use comparative claims, particularly in relation to emissions, cost and efficiency.

The analysis also identifies emerging areas of activity, including environmental claims appearing in sectors that have not previously been a central focus of the ASA's regulatory attention, such as architecture and other service-based sectors.

A large-scale, data-led analysis of online advertising

This analysis draws on over seven million business-to-consumer ads served to UK consumers across Google (including search results and Google Maps, but excluding YouTube) and website display channels, captured using the ASA's Active Ad Monitoring system. These channels provide substantial coverage of online advertising and offer a robust basis for identifying patterns in how environmental claims are used.

This work demonstrates the value of analysing advertising at scale, providing a new and more comprehensive view of how environmental claims are being used in practice. By applying its Active Ad Monitoring system in this way, the ASA is able to identify patterns, concentrations and emerging areas of activity that would not be visible through individual complaints alone. This strengthens the ASA's ability to apply data-driven approaches to understanding how claims are made, providing a clearer basis for targeting monitoring, engagement and enforcement work, and reflects a continued strategic shift towards more proactive, AI-assisted regulation.

2. Introduction

This report is the second in a series of 'Pulse' studies, building on earlier work on alcohol advertising. These studies use large-scale data analysis to examine how specific types of claims appear across online advertising.

The ASA has been regulating environmental claims in advertising for decades. Over that time, both the advertising landscape and the nature of environmental messaging have evolved significantly. Advertising has become increasingly digital, more targeted, and more varied in format. At the same time, environmental claims have become more prominent and more complex, reflecting wider public, regulatory and industry attention to environmental issues, and increasing expectations around the clarity and substantiation of such claims.

Against that backdrop, in 2021 we launched a dedicated programme of work on Climate Change and the Environment, bringing together formal investigations with proactive monitoring, consumer research, and targeted guidance to industry. This systematic and forward-looking approach has allowed us not only to respond to problematic ads, but also to support businesses in making clear, evidence-based environmental claims with confidence.

Alongside this, the ASA has expanded its use of data science, including the development of its Active Ad Monitoring system. This has made it possible to capture and analyse online advertising at scale, supporting a broader view of how claims are being made in practice.

Until now, much of our environmental claims work has focused on specific sectors or issues of concern. This study takes a different approach, using Active Ad Monitoring data to examine patterns in online advertising at scale, with the aim of understanding how frequently environmental claims appear, where they are concentrated, and what types of claims are being made.

The analysis draws on ads captured across Google (including search and map results, but excluding YouTube ads) and website display channels between September and November 2025. Together, these sources provide substantial coverage of online advertising and allow for the identification of meaningful cross-market patterns.

For the purposes of this study, environmental claims were defined in collaboration with subject matter experts within the ASA's Climate Change and the Environment team and reflect the main ways in which environmental benefits are typically presented in advertising. These include:

- **Broad or vague environmental benefit claims** (for example, “eco-friendly”, “sustainable”, “planet-friendly”)
- **Claims presenting a product or service as environmentally beneficial overall** (for example, “plastic-free detergent”, “sustainable nappies”)
- **Claims about materials, packaging or disposal** (for example, “100% recyclable”, “biodegradable”, “compostable”)
- **Claims about environmentally friendly production or sourcing** (for example, “made with renewable energy”, “zero-emissions factory”, “recycled materials”)
- **Claims relating to carbon, emissions or climate impact** (for example, “carbon neutral”, “net zero”, “low carbon”)
- **Comparative claims about reduced environmental impact** (for example, “greener”, “lower emissions”, “less plastic”)
- **Claims relating to reuse, refill, repair or product longevity** (for example, “refill system”, “designed for circularity”)
- **Claims highlighting the absence of environmentally harmful materials or processes** (for example, “plastic-free”, “no microplastics”, “zero waste”)

This analysis does not make formal determinations about compliance, but instead identifies where different types of claims are most prevalent – particularly those that may require a higher level of substantiation – and where there may be greater regulatory risk or a need for further scrutiny. Many such claims will be compliant when appropriately substantiated and presented.

Claims were also classified as either absolute (for example, “eco-friendly” or “carbon neutral”) or comparative (for example, “greener” or “lower emissions”). This distinction is important because absolute claims typically require a higher level of substantiation and therefore carry greater compliance risk.

To explore how claims vary across the market, advertisers were grouped into sectors using a classification approach designed to reflect the structure of the UK advertising landscape. These groupings allow us to identify where environmental claims are most prevalent, and how patterns differ between sectors.

Overall, this approach provides a broader view of how environmental claims are being used across online advertising, complementing the ASA's existing Climate Change and the Environment work and helping to inform future monitoring, guidance, enforcement and engagement with industry.

The following sections set out the key findings from this analysis, beginning with the overall scale and distribution of environmental claims across the market. Further detail on the methodology is set out in the appendix.

3. High level findings

Overall prevalence of environmental claims

During the three-month study period (September to November 2025) 6 million Google ads (including search and map results, but excluding YouTube) and 1.7 million website banner B2C ads were captured. Of these 7.7 million ads 61,000 were identified by our data science model as containing environmental claims.

This equates to a prevalence of approximately 1%, confirming that environmental claims are relatively rare in online advertising.

At advertiser level, around 325,000 advertisers were active during the study period, of which approximately 13,000 (4%) made at least one advert that the model flagged as containing an environmental claim.

Only 1% of ads contained environmental claims



But where they did appear, they were most often framed in absolute terms

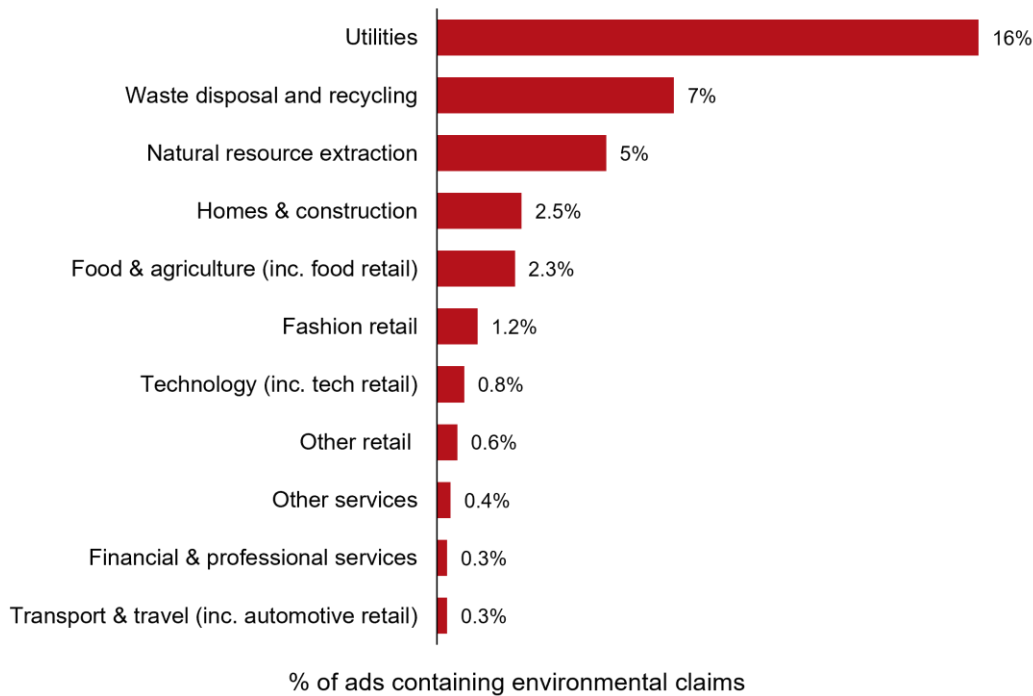


99%
ads without
environmental claims

1%
ads with
environmental claims

Distribution of claims across sectors

Environmental claims were most likely to appear across the utilities sector



The chart above shows the percentage of ads within each sector that contained environmental claims. Utilities is the largest contributor at 16%, more than double the next sector. Waste disposal and recycling accounts for 7%, followed by natural resource extraction at 5%. All remaining sectors contribute less than 3%, indicating a steep drop-off after the top three.

4. Key insights

While the high-level findings show where environmental claims appear and how frequently, a closer analysis of the data reveals more specific patterns in how those claims are being used in practice. The following sections highlight some of the most notable insights.

Environmental claims appear in only a small proportion of online ads (approx. 1% according to our model). However, where they do appear, they are most often framed in absolute terms (75%). This matters because absolute claims typically require a high level of substantiation under the CAP Code and therefore carry greater compliance risk.

The share of absolute claims varies by sector, from around 95% in food and agriculture (including food retail) to approximately 59% in utilities. For example, many claims in the food and agriculture sector use absolute phrases such as “eco-friendly” and “sustainable” to describe products, whereas utilities ads more often use comparative language relating to energy, carbon and cost savings, such as “greener” or “cheaper”.

This pattern is consistent across the dataset and highlights the prominence of higher-risk claim types wherever environmental claims are used.

The transport and travel sector has a lower prevalence of environmental claims, with a greater use of comparative messaging

The transport and travel sector shows a lower prevalence of environmental claims than the overall average. Where claims do appear, they are more likely to be framed in comparative terms – particularly in relation to emissions, cost and efficiency – rather than as broad or absolute environmental benefits.

Over a third of environmental claims in this sector come from coach and train advertisers, with less than 7% relating to flights (ads were assigned to transport modes using an AI model). The majority of aviation-related ads were from a single airline that the ASA has recently engaged with, which has committed to improving compliance in this area. A significant proportion of ads in this sector (33%) use only comparative environmental claims, which are generally less likely to raise compliance concerns.

To better understand the types of environmental claims being made in this sector an experimental data science technique known as ‘clustering’ was used to group similar claims together. This method produces groupings which are indicative, meaning some ads in each group may not fit the general theme.


This approach identified the following groups:

- 26% of ads were for a single coach company stating that travelling with them was more sustainable than flying, with claims based on lower emissions relative to air travel.
- 30% of ads were for holiday providers and hotels which made claims that their trips or hotels were “sustainable”, “eco-friendly”, “responsible”, or respected the destination’s environment. There were also several resorts or hotels that included “Eco” in their name.
- 20% of ads were mostly for automobile sales or car hire, stating that cars were ‘ULEZ-friendly’ and claims about ‘renewable and recycled materials’ used in cars.
- 17% were for train and plane operators/trips, which presented their mode of transport as a more eco-friendly way to travel by either comparing train carbon emissions to flying or by airlines using carbon offsetting (including the airline we have started an investigation into).
- 7% of ads were for couriers and moving companies. Claims in ads included assertions that their services were ‘greener’, ‘green’ or ‘eco-friendly’. Some companies said they donated money to environmental charities or planted trees based on customer spend.

Overall, these findings suggest that environmental claims in this sector are more often framed in relative or comparative terms, particularly in relation to emissions, cost and efficiency, rather than broad or absolute environmental benefits.

Representative example ad:

Sponsored



RailConnect
www.railconnect.com/europe-routes

Trains from Geneva to Zurich – fast and easy booking

Travel by train and reduce your CO₂ footprint compared to flying – up to 20x lower emissions. Book tickets today

[Train Routes](#) [Book Tickets](#) [European Rail](#)

The food and agriculture (inc. food retail) sector has a higher prevalence of green claims than online advertising overall, with almost all being absolute claims

The food and agriculture sector (including food retail) is a significant source of environmental claims in online advertising, with our model predicting a prevalence rate of around 2%, compared with 1% overall. When advertisers in this sector make environmental claims, they are overwhelmingly absolute in nature (95%). Two distinct groups of ads emerged in this sector:


Coffee producers and retailers

A variety of claims were made about the entire life cycle of the product. From claims that the product was sourced “sustainably”, “ethically” and “responsibly” to assertions about “compostable”, “biodegradable” and “recyclable” packaging and pods. The phrase “eco-friendly coffee” was used frequently. This is notable given the environmental impacts associated with coffee production and distribution.¹

Representative example ads:



Sponsored

 **BeanCraft**
www.beancraft.co.uk

Stainless Steel Milk Frother – Award-Winning Coffee

Speciality coffee, ethically sourced from sustainable farms. Great coffee, made with care for the planet. 100% refund if you're not satisfied. 100% plastic free.

Rating for beancraft.co.uk
4.5 ★★★★★ (6,200)


'Warm and fuzzy' language from food manufacturers and retailers

Claims about “sustainable” meal kits, meats and other products, in relation to the products being organic, grass-fed, from “regenerative” farms, free-range or free from palm-oil. Claims regarding packaging having “less plastic” / “plastic free”, being “sustainable” or “biodegradable”.

¹ <https://ourworldindata.org/environmental-impacts-of-food?insight=what-we-eat-matters-much-more-than-how-far-it-has-traveled#key-insights>

Representative example ad:

Sponsored

 Cocoa Grove
www.cocoagrove.co.uk/sustainable-chocolate

**Supports Sustainable Farming
– Shop Online Now**

From rich truffles to chocolate treats, we have something to suit every taste. Shop our range of premium chocolate.

Ongoing environmental claims in the ‘Greener homes’ space, with architecture emerging as a newly identified area of activity

Within the ads flagged as making a green claim from the financial and professional services sector a group of ads from architecture firms emerged. There were 200 ads in this group which made claims relating to designing “sustainable”, “eco-friendly” and “low carbon” homes.

Within the homes and construction sector, the following (experimental) groups emerged:

- 20% of ads were for windows and doors (including double and triple glazing). These ads typically claimed improved energy efficiency, reduced heat loss and lower energy bills, often presenting upgraded glazing as a way to make homes more energy efficient.
- 19% of ads were for new-build housing developments. These ads frequently described homes using terms such as “energy-efficient”, “sustainable”, “eco-friendly”, “low-energy”, “zero-carbon”, or “planet-positive”, and often included claims about saving up to a certain percentage on energy bills.
- 18% of ads were for home energy systems or upgrades such as heat pumps, insulation, and new boilers, which made claims about improving energy efficiency and reducing household energy bills.
- 9% of ads were for solar panel systems, which typically claimed to be “sustainable” or “eco-friendly” and emphasised the potential to reduce household carbon emissions and energy bills, sometimes claiming households could cut energy costs by up to a stated percentage or generate “free electricity.”

Representative example ad:



EcoBuild Architects

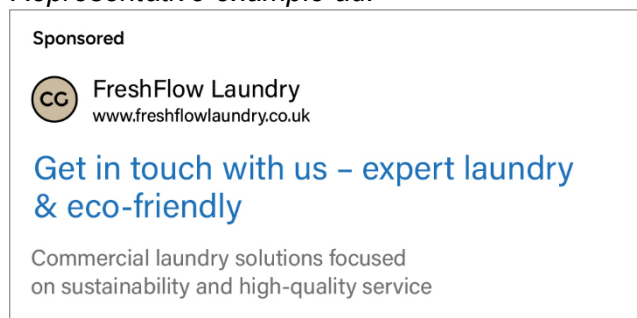
Sustainable, energy-efficient architecture |
Passive house design | Eco homes

www.ecobuildarchitects.co.uk [Open >](#)

Cleaning services were a key source of green claims within ‘Other services’

Around 20% of ads flagged by the model as containing a green claim in ‘Other services’ sector were placed by cleaning service providers. These claims were predominantly vague, non-specific assertions (e.g. ‘eco-friendly’), applied either to the service overall or to the products used.

Representative example ad:



The image shows a sponsored advertisement for FreshFlow Laundry. At the top left, it says "Sponsored". Below that is the FreshFlow Laundry logo, which consists of a circle containing the letters "CC", followed by the text "FreshFlow Laundry" and the website "www.freshflowlaundry.co.uk". The main headline of the ad is "Get in touch with us – expert laundry & eco-friendly" in blue text. Below the headline, it says "Commercial laundry solutions focused on sustainability and high-quality service".

Cross-sector claims

In addition to sector-level patterns, the analysis highlights the widespread use of a small number of recurring terms across the market. These terms – particularly “eco-friendly” and “sustainable” – appear across multiple sectors and are often used in broad or non-specific ways, making them an important focus for regulatory attention.

“Eco-friendly”

Around 10,000 ads flagged as containing an environmental claim used the phrase “eco-friendly” (including variants), accounting for 16% of all flagged ads. These were concentrated in retail sectors – particularly fashion, technology and other retail – which together accounted for over 70% of uses of this term.

“Sustainable”

Over 16,000 ads used the term “sustainable” (including variants), accounting for 27% of all flagged environmental claims. As with “eco-friendly”, usage was concentrated in retail sectors, which together accounted for over 70% of instances.

“Carbon neutral and net-zero”

Around 2,000 ads used the terms “carbon neutral” or “net zero”, accounting for 4% of all ads that were flagged by the model as containing environmental claims. These were concentrated in the homes and construction and utilities sectors. These claims are particularly significant because they are typically absolute in nature and may require a high level of substantiation under the CAP Code.

5. ASA “Climate Change and the Environment” focus areas

The ASA’s Climate Change and the Environment programme has identified a number of priority areas where environmental claims are more likely to raise concerns, drawing on a combination of consumer research, market intelligence and wider evidence, including the broader policy and regulatory context.

This analysis provides an opportunity to assess how those areas are currently reflected in online advertising, and whether the patterns observed align with existing areas of focus. These areas have been refined over time as new issues have emerged. In some cases, detailed findings for these areas are explored elsewhere in this report; where this is the case, a brief summary is provided here alongside signposting to the relevant sections.

The following areas reflect sectors and claim types where the ASA has previously identified higher risk or consumer interest:

- Food and agriculture, including meat, plant-based and dairy products, agriculture, and food retail (including supermarkets).
- Fashion retail
- Energy, including oil, gas and renewable energy companies.
- Utilities, including water, electricity and gas providers.
- Travel and transport, including, (online) travel agents, flights, EVs, cruises and hybrid vehicles.
- Carbon neutral and net-zero; this cuts across multiple sectors, as these are claims made by advertisers about themselves or their products.
- Green disposal, including waste management, recycling and disposal companies.
- Greener homes, including home insulation, solar panels and heat pumps

Food and agriculture (including supermarkets)

145k ads were assigned to this sector, of which approximately 3,000 were flagged by the model as making an environmental claim (2%). The vast majority of these were absolute claims (95%).

These claims often use broad terms such as “sustainable” or “eco-friendly” in relation to products and packaging and represent one of the more prominent sources of environmental messaging in online advertising.

More detailed analysis of claim types and patterns in this sector is set out in the **Key insights** section above.

Fashion retail

614k ads were assigned to this sector. Around 9,000 were flagged by the model as making an environmental claim (approx. 2%), the vast majority of which were absolute claims (94%).

Claims in this sector commonly referred to products as “sustainable” or “eco-friendly”, with these, and lexically similar, terms appearing in 56% of flagged ads.

This suggests a widespread use of broad environmental messaging within online fashion retail contexts. This aligns with recent work by the Competition and Markets Authority (CMA), which has identified the use of vague or unsubstantiated terms such as “eco-friendly” and “sustainable” as a particular risk in this sector. The CMA has taken enforcement action against several major retailers and published sector-specific guidance emphasising the need for clear, specific and substantiated environmental claims.

Energy

The natural resource extraction sector includes both mining and energy companies, so an AI model was used to identify ads relating specifically to energy companies. This left 900 ads, of which 75 were flagged as containing environmental claims.

Environmental claims in this sector fall into several broad themes, often relating to the energy transition and decarbonisation efforts alongside continued provision of conventional energy sources.

Some ads framed the advertiser as supporting the energy transition while continuing to supply conventional energy, using language such as “powering the energy transition with offshore wind, carbon capture, and oil and gas”.

Another set of claims centred on companies’ net-zero ambitions, with statements such as “target is to become a net-zero emissions energy business by 2050”.

Other advertisers referenced low-carbon or carbon reduction technologies, for example “geologic sequestration... one way we’ll help curb global temperature rise”, “providing access to thousands of EV chargers #progress”, and “developing wind energy and electric mobility in the UK”, as well as references to “offshore wind” and “carbon capture”.

Some ads also adopted a broader sustainability narrative, focusing on social or economic contributions linked to the transition, such as “we’re aiming to help 15,000 into jobs with a focus on the energy transition by 2035” and “building skills for the energy transition”.

Utilities

9,500 ads were assigned to this sector, of which 1,500 were flagged by the model as making an environmental claim (16%). The majority of these were absolute claims (59%), although this was the lowest proportion across all sectors. This indicates that while environmental claims are relatively common in this sector, they are more likely than in other sectors to be framed in comparative terms.


When looking at different types of claims within the utilities and energy sector, the following (experimental) groups emerged:

- 34% of ads were for energy providers promoting renewable energy tariffs or services. These ads frequently included claims such as “100% renewable electricity”, “zero carbon energy”, or similar, often combined with messages about reducing household energy bills through renewable energy.
- 15% of ads were for energy-company provided home energy upgrades, particularly heat pump and insulation installations. These ads highlighted reduced carbon emissions and lower energy bills, and some referenced government grants or financial support schemes.
- 12% of ads were for a single energy provider, which frequently promoted renewable electricity tariffs and positioned its services around clean energy and lower-carbon power.

- 16% of ads were from water companies, as part of water-saving campaigns, including claims on how to reduce water usage.
- 9% of ads included a range of sustainability-related claims from utility-adjacent sectors, such as leasing land for renewable energy projects framed as leaving a “green legacy”.

Representative example ad:

Sponsored

 **GreenGrid Energy**
www.greengridenergy.co.uk

GreenGrid Energy – Switch to GreenGrid Today

Cut costs and carbon emissions. A great value green energy deal – get a quote in a minute.

Rating for greengridenergy.co.uk
4.3 ★★★★★ (310)

Travel and transport

Two million ads were assigned to this sector, of which 5,000 were flagged by the model as making an environmental claim (less than 0.5%). The majority of these were absolute claims (68%).

This represents a lower prevalence of environmental claims than across online advertising overall (approx. 1%). While most environmental claims in this sector were absolute claims, comparative claims were more common here than across online advertising overall, particularly in relation to emissions and cost.

A more detailed analysis of claim types in this sector is set out in the **Key insights** section above, including the clustering of claims across different modes of transport such as rail, coach, automotive and aviation.

Carbon neutral and net-zero

2.2k ads were flagged as containing an environmental claim that used the terms “carbon neutral” or “net zero”, accounting for 4% of all environmental claims. These claims were not evenly distributed across sectors and were instead concentrated in the homes and construction and utilities sectors.

These types of claims are significant because they are typically absolute in nature and may require a high level of substantiation under the CAP Code. Further detail on the use and distribution of these terms is set out in the **Cross-sector claims** section above.

Green disposal

Ads relating to waste management, recycling and disposal were captured within the dataset; however, claims in this area were frequently inherent to the service being advertised (for example, references to recycling or waste removal).

As a result, a large proportion of these ads were classified as containing environmental claims by definition, rather than reflecting more discretionary or marketing-led environmental positioning. This

makes it more difficult to draw meaningful distinctions in how environmental claims are being used in this category, compared with other sectors where such claims are more selectively applied.

Within the wider dataset, around 3% of ads flagged as containing an environmental claim included terms such as “recyclable”, “biodegradable” or “compostable”, the vast majority of which (94%) were absolute.

While these types of claims are not limited to this sector, they most commonly arise in contexts where recycling, disposal or packaging form part of the core service or product offering and typically require a very high level of substantiation.

Ultimately, this reinforces both the central role that environmental messaging plays within this space, and the importance of ensuring that claims about recycling, waste reduction and disposal, and environmental impact are clear and appropriately substantiated.

Greener homes

300k ads were assigned to the homes and construction sector, of which 7k made an environmental claim (approx. 2%). The majority of these were absolute claims (69%).

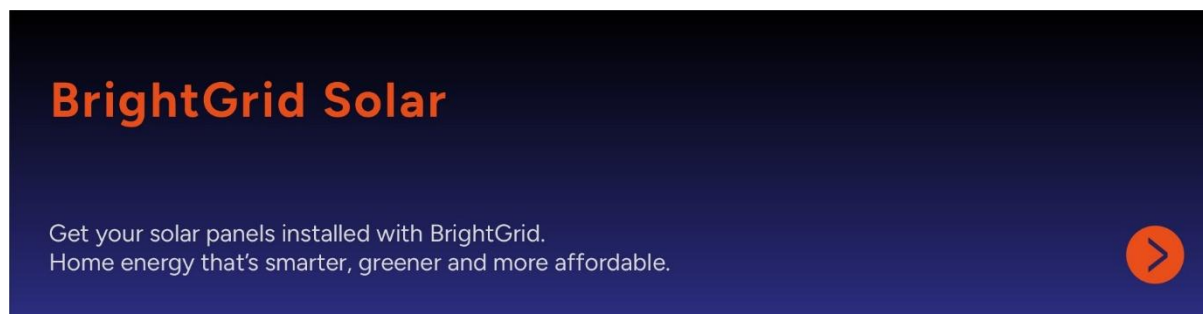
Environmental claims in this area commonly relate to energy efficiency, heating systems and building design, including claims about reduced heat loss, improved insulation, and lower household energy use and bills.

Advertisers in the ‘greener homes’ space continue to make environmental claims, with architecture firms emerging as a newly identified area of activity. Within the financial and professional services sector, 229 ads from architecture firms made claims relating to designing “sustainable”, “eco-friendly” and “low carbon” homes.

Within the homes and construction sector, claims are concentrated in areas such as glazing, new-build housing, home energy systems (including heat pumps and insulation), and solar panels, often emphasising improved energy efficiency or reduced environmental impact.

Further detail on these patterns is set out in the **Key insights** section above.

Representative example ad:



Overall, these findings suggest that the ASA’s existing focus areas remain well aligned with the way environmental claims are being used in practice. Environmental claims continue to appear across each of these sectors, often in forms that may require careful substantiation, particularly where absolute claims are used.

The analysis also highlights variation in how claims are presented across the market, both in terms of prevalence and the balance between absolute and comparative claims. This reinforces the importance of maintaining a targeted focus on areas where the potential for consumer harm or misleadingness may be greater.

6. What this means, what we've learned, and what comes next

This analysis provides the ASA with its first large-scale, cross-market view of how environmental claims are being used across online advertising, based on the channels analysed. It builds on our ongoing Climate Change and the Environment work and strengthens our evidence base for understanding how such claims appear in practice across different sectors. It should be seen as a stock-take within that wider programme, rather than a change in direction.

While this report does not make formal assessments of compliance, it highlights a number of important patterns. Environmental claims remain relatively uncommon overall, but where they do appear they are often framed in absolute terms, which typically require a far higher level of substantiation. This suggests that, in practice, there may be a gap between how such claims are being used and the level of evidence required to support them. It also suggests that businesses may be missing opportunities to make more specific, qualified claims that remain compelling to consumers while carrying lower compliance risk. The analysis also shows clear variation between sectors and identifies areas where environmental messaging appears to be more concentrated or evolving.

Overall, these findings suggest that potential regulatory risk is shaped less by how often environmental claims appear, and more by how they are framed and the context in which they are used. This reinforces the importance of focusing on claim type, clarity and substantiation, particularly in areas where absolute claims are prevalent and where the risk of misleadingness may be higher.

This work has also provided a number of technical and analytical insights. Analytically, it demonstrates the value of looking across the market as a whole, rather than focusing only on individual sectors, allowing patterns and areas of concentration to emerge more clearly. From a technical perspective, it shows that the ASA's Active Ad Monitoring system, combined with Large Language Models and expert human judgement, can be used to analyse advertising claims at scale in a consistent and repeatable way. This represents a step forward from more targeted applications and provides a foundation for further refinement and future use in other areas.

In practical terms, these findings will be used to support and refine the ASA's existing approach to regulating environmental claims. We will continue to monitor environmental claims across the channels analysed, using this study as a baseline against which future analysis can be compared, and to track how the prevalence and nature of claims evolve over time.

We will use these findings to engage with industry more broadly, reinforcing expectations but also our best practice advice around environmental claims – particularly that the use of absolute terms, where the evidential bar is highest – and supporting more consistent application in practice. This includes signposting businesses to CAP's forthcoming *Green-speaking with confidence* guidance, which is intended to provide practical examples of how environmental benefits can be communicated clearly and compliantly in advertising. Alongside this, we will carry out more targeted

follow-up in areas where new or evolving patterns have been identified, working with relevant industry bodies, trade associations and other stakeholders as appropriate.

The findings will also inform future guidance and communications activity, particularly in relation to commonly used terms such as “eco-friendly” and “sustainable”. These claims appear across multiple sectors and are subject to well-established substantiation requirements. However, the findings suggest that some businesses may benefit from clearer practical guidance on how to apply them compliantly.

Overall, this approach reflects a continued shift towards more proactive, data-informed regulation, enabling the ASA to identify and respond to emerging issues in a more targeted and proportionate way.

7. Concluding remarks

This analysis shows that the potential for consumer harm in environmental advertising is shaped less by how often claims appear, and more by how they are framed and understood in context.

Environmental claims are relatively uncommon, but this does not reduce the importance of ensuring that those which are made are clear, accurate and appropriately substantiated.

By looking across the market at scale, the ASA is better able to identify these patterns early and focus its efforts where they are most likely to make a difference. This supports a more proactive, targeted and proportionate approach to regulation, grounded in a clearer understanding of how environmental claims are being used in practice.

8. Recommended resources

General

[Our work on Climate Change and Environmental Claims](#)

[Climate Change and the Environment – Key Advice Resources on Green Claims](#)

[CAP Code: Section 11](#)

Consumer research

[Climate change and the environment – consumer understanding of environmental claims](#)

[ASA research on green disposal claims in ads](#)

[ASA research into environmental claims in food advertising](#)

Other

[Snapshot Report: Environmental claims in travel agent ads](#)

Appendix

Methodology

The findings above are based on large-scale, AI-assisted analysis. The methodology below sets out how ads were captured, filtered and classified, and the limitations that should be considered when interpreting the results.

The ASA's Active Ad Monitoring system was used to capture and store website banner and Google ads (including search and map results, but excluding YouTube) shown between 1 September and 30 November 2025 (inclusive). Website banner ads are the photo and video ads that appear alongside a website's content, while Google search ads appear on search results pages.

The data was then cleaned to remove incomplete or unusable ads (for example, where text or images were missing). Following this, business-to-business (B2B) ads were then removed using a machine learning model trained on a dataset of human-labelled ads. This ensured the analysis focused on business-to-consumer (B2C) advertising. This model had an accuracy of 92%, meaning that for every 100 ads it was given, it correctly identified 92 as being either B2B or B2C.

After data cleaning and the removal of B2B ads 7.7 million remained, of which 6 million were from Google and 1.7 million were website banner ads.

The remaining ads were then analysed using a three-stage modelling approach to identify environmental claims. First, a machine learning model filtered ads to remove those without an environmental or "green" theme. Ads identified as potentially relevant were then analysed using a Large Language Model (LLM), which determined whether an environmental claim was present and extracted the relevant text. Finally, a further classification step categorised each claim as either absolute or comparative.

LLMs are advanced AI systems trained on large volumes of text and image data, enabling them to interpret language and context. For this analysis, the models were guided using prompts developed in collaboration with subject matter experts in the Climate Change and the Environment team, based on a defined set of environmental claim types. These prompts were iteratively refined and tested against a dataset of 448 human-labelled ads to maximise accuracy.

To assess how well the models identified ads containing green claims, they were evaluated against a human-labelled dataset, separate to the set used for prompt refinement. Based on this, we estimate:

- Precision (the proportion of ads flagged by the model as containing an environmental claim that did in fact contain such a claim) is estimated at approximately 87%. In practice, this means that around 87 in every 100 ads flagged by the model did contain an environmental claim.
- Measuring recall is more complex. While explicit environmental claims such as "plastic free", "biodegradable" and "eco-friendly" are relatively easy to identify, many claims are more ambiguous. For example, terms such as "ethical" or "save money on energy bills" may imply environmental benefits but may not be consistently interpreted as such by consumers or subject matter experts. As a result, while the overall recall rate is estimated at 63%, recall for explicit claims is considerably higher. In practice, this means that for every 100 ads containing an environmental claim, the model identified around 63. For more clearly defined claims, performance was stronger – for example, the model identified 93 out of every 100 ads containing "plastic free" and 88 out of every 100 containing "biodegradable". Ultimately, these

results indicate that while the model does not identify all relevant ads, it is effective at surfacing a substantial and meaningful subset for analysis at scale.

To identify patterns across the market, advertisers were assigned to sectors using a classification approach based on the North American Industry Classification System (NAICS), adapted to reflect the structure of the UK advertising landscape. The sectors used in this analysis were:

- **Fashion retail:** retailers selling clothes, sporting attire, shoes and accessories.
- **Financial and professional services:** finance, insurance, lawyers, accountants, architects, engineers, consultants and scientists.
- **Food and agriculture** (inc. food retail): agriculture, fishing, forestry, food manufacturers and food retailers (including supermarkets).
- **Homes and construction:** construction, house building, estate and letting agents, and installers.
- **Natural resource extraction:** mining, quarrying, and oil and gas extraction.
- **Other retail:** retailers excluding those selling clothes, technology and food.
- **Other services:** public sector, health and social care, education, training, administrative support, rental services, and arts, entertainment and recreation.
- **Technology** (inc. tech retail): electronics retailers, white goods retailers, web hosting, social media, broadcasting, content providers and streaming services.
- **Transport and travel** (inc. automotive retail): airlines, train operators, coach operators, travel agents, car and van sales, and cruises.
- **Utilities:** water, electricity and gas providers.
- **Waste disposal and recycling:** waste removal and recycling providers.

Sector classification was carried out using a combination of human and AI-based approaches. The top 100 Google and website banner advertisers by volume – accounting for approximately 45% of all ads in the dataset – were manually assigned to sectors to ensure accuracy. The remaining advertisers were categorised using an AI model. The AI sector classification accuracy rate was 74%, which means for every 100 advertisers 74 were assigned to the correct sector. This combined with human labelling meant the vast majority of advertisers within the dataset were correctly assigned.

During this process, a small number of advertisers were identified as producing low-quality ads associated with scams or likely illegal services; these were removed from the dataset. In addition, ads classified within a “Wholesale trade” category – which primarily captured B2B activity – were excluded to maintain focus on consumer-facing advertising.

How the ASA used the Active Ad Monitoring system in this trial

1 We capture millions of ads



The ASA's Active Ad Monitoring system (AAMs) captured millions of Google search and website ads over a three-month period, providing a large-scale snapshot of environmental advertising online.

2 We focus on consumer advertising



The dataset was refined to focus on consumer-facing ads, removing incomplete, low-quality and business-to-business content.

3 AI identifies environmental claims



AI models screened the ads for environmental themes and identified claims such as "eco-friendly", "sustainable" and "carbon neutral".

4 Claims and sectors are analysed



Environmental claims were categorised and advertisers grouped into sectors, helping identify patterns and trends across the market.

5 Human experts review the findings



Specialist reviewers applied regulatory expertise and judgement to interpret the findings and identify key insights.

6 The findings inform future action



The findings help inform the ASA's ongoing monitoring, guidance, engagement and enforcement work around environmental claims.

While this approach was tested and refined against human-labelled data, it has some limitations. Sector classification was less reliable where ads contained limited or ambiguous information about the advertiser. Because the model does not draw on external sources (such as company websites), it assigns sectors based only on the content of the ad itself, which can require it to make an informed judgement where detail is sparse.

In addition, advertisers that operate across multiple sectors – such as ad agencies producing ads for a range of clients – were assigned to a single category. This means that, in some cases, ads may be attributed to a sector that does not fully reflect the underlying advertiser activity. However, this effect is partially mitigated by the manual classification of the highest-volume advertisers, which account for approximately 45% of all ads analysed.

The analysis focuses on Google search and website banner ads, where the ASA has access to large-scale and consistent data. This allows for a robust and interpretable assessment of environmental claims across a substantial proportion of online advertising activity.

Other forms of online advertising – including social media platforms such as Meta, TikTok and Snapchat – were not included within the scope of this analysis. The findings presented here should therefore be understood as reflecting patterns and trends within the channels analysed, rather than the entirety of online advertising.

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