



Climate Action
Against Disinformation

Extreme Weather, Extreme Content:

How Big Tech Enables Climate Disinformation
In a World on the Brink

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Introduction: Broken Records, Broken Systems

As a coalition, [Climate Action Against Disinformation](#) (CAAD) has produced leading research for the last four COP summits. The [Deny, Deceive, Delay series](#) has sought to provide an annual benchmark of the false narratives that pollute discourse and hinder climate action: who is spreading them, how do they manifest, and what do they reveal about the critical defects in our information space. **In compiling this year's report, the starkest finding does not relate to any specific trend, but the consistency of those trends over time.** While the exact content may change year-on-year, we are struck by how much remains the same, and how little has been done to address the root causes.

2024 was another year in which climate impacts became more tangible and severe, affecting billions of people in their everyday lives. Once again, we saw what is almost certainly the [warmest calendar year on record](#), with droughts that ravaged almost every region from South America to Central Asia, sub-Saharan Africa to North America and Western Europe, [leaving humanitarian catastrophes in their wake](#). Equally, there were [unprecedented wildfires, flooding](#) and [hurricanes](#) around the world, causing [hundreds of billions](#) in [economic damage](#).

The consequences of climate change are now more extreme, and so too is the nature and ubiquity of mis- and disinformation. Perversely, these climate events have been weaponised by actors seeking to undermine climate action and condemn anyone involved in mitigation or adaptation efforts. They have helped turbo-charge the most outlandish conspiracies and revived well-worn forms of denialism.

Blame is attributed, not to a [chronic failure to meet climate targets](#) or phase out fossil fuels, but at everyone from [‘the Jewish cabal’](#) to [weather forecasters](#) and [frontline responders](#). Rather than being relegated to the fringes of public discourse, our evidence suggests that such narratives are becoming even more mainstream, more violent, and [more impactful through repetition](#).

In many cases, this process is inseparable from ongoing, systemic issues in the governance of digital platforms and the incentives built into social media. Each year, [CAAD has tried to pinpoint](#) how big tech infrastructure enables bad actors and produces harm – whether through the monetising of disinformation; algorithmic boosting of lies and abuse; opaque ad tech systems; failure to address repeat offender accounts; paid-for search engine results; or enabling the multi-billion-dollar PR and marketing machine of fossil fuel interests. Sadly, this report spotlights many of those same issues, suggesting limited progress in addressing them. **The further decay of information integrity is not a foregone conclusion, but we must confront threats now, before the damage is beyond repair.** A range of specific policy asks can be found in the report's Conclusion.

Access Denied: The Growing Threat to Research

It is more important than ever to track and dissect trends at scale, in real time, across geographies and languages; yet researcher access to data is in dire straits. Put simply: much analysis that has mobilised the climate sector and policymakers in previous CAAD research could no longer be produced in the current landscape. This is particularly true for big data and 'volume-over-time' analysis that offers the wider lens on what is happening and provides early warnings, as opposed to anecdotal case studies when a crisis has already struck.

This issue applies to almost all digital platforms, fringe and mainstream, although some have implemented more explicit changes in the past year. To highlight just a few:

- **Meta:** In August 2024, [Meta deprecated its Crowdtangle \(CT\) tool](#), previously a gold standard for enabling research into a range of online harms. It has been replaced by the [Meta Content Library \(MCL\)](#), which [by the assessment of Crowdtangle's original creator](#) has severely reduced functions and utility. From the experience of CAAD members and our networks, obtaining approval for access is both cumbersome and slow, with many researchers still awaiting a verdict on their application to date. These requests are also now assessed on a case-by-case basis, a major change from previous years.
- **X:** Under the leadership of Elon Musk, X's API has shifted to a tiered costing model that is [prohibitively expensive](#) for most research organisations. On Brandwatch, a common third-party tool for conducting analysis on X, research accounts are now limited to exporting 50k posts per day. While you can conduct analysis natively within the system, this prohibits other vital research with more sophisticated or bespoke tools, and severely hinders monitoring of macro-level trends. Such constraints are further explained within the case studies of this report, showcasing where they had a direct impact on CAAD and its members' work.
- **TikTok:** TikTok has released an API that technically qualifies researchers to study public data on the platform. However, this access is [currently limited](#) to academic institutions located in the United States, European Union, UK or Switzerland, or not-for-profit and research entities only in the European Union. They are also beta-testing the service with 'select researchers' in the United States, European Union, UK, Switzerland, Norway, Iceland and Liechtenstein. Applicants must provide a 'clearly defined research proposal and show the access requested is needed for, and proportionate to, the purpose of that research', as determined by the platform itself.

An [explainer](#) and [full report](#) on Data Access, including how to strengthen initiatives going forward, are available from the [Institute for Strategic Dialogue](#). Needless to say, **without the ability to diagnose a problem, you cannot hope to fix it.** We need to evidence how climate mis- and disinformation are shaping discourse in a robust and data-driven way, so that our responses are proportionate, precise, and designed for maximum impact. Anything less not only threatens our information ecosystems, but the viability of climate action writ large.

Executive Summary: Key Findings

Case Study 1: Opposition to Renewables

- **Misinformation attacking renewables – in particular wind, solar, and electric vehicles (EVs) – has proven remarkably consistent over time.** Debunked talking points continue to generate high engagement, falsely claiming such technologies are inefficient, unreliable, dangerous, prohibitively expensive, or do more harm than good to wildlife and natural habitats.
- Increasingly, **renewable energies are also framed as a tool for social control**, in line with wider conspiracy theories such as [‘Climate Lockdown’](#) and the [‘Great Reset’](#). Government-led policy interventions, for example to phase out diesel vehicles or support heat-pump installation, are regularly labelled ‘totalitarian’ and part of an attempt to ‘control’ citizens to their detriment.
- **Top shared posts frequently use short videos of alleged incidents involving renewable energy equipment**, especially wind turbines. Decontextualised footage featuring ‘accidents’ often spreads rapidly and requires time-intensive fact-checking, although in many cases it cannot be sourced using standard tools (e.g. reverse image search). This means social media users have little recourse to verify claims.
- **High engagement content often ‘wokewashes’ opposition to renewables, focussing on their alleged environmental or human rights impacts.** In our sample, climate-sceptic accounts frequently claimed that renewable equipment cannot be recycled or focussed on issues like rare earth minerals mining in the Democratic Republic of Congo (DRC), which are used to produce EV batteries. Accounts self-describing as progressive or left-leaning also highlighted these issues; crucially, however, these latter accounts did not discredit renewables writ large and were generally vocal supporters of a just energy transition.
- While exact examples may vary, **core narratives over the past year are uncannily similar to those identified by CAAD after COP26** in [Deny, Deceive, Delay Vol.1](#). This shows the persistence or ‘stickiness’ of mis- and disinformation and reinforces how arguments and imagery are recycled year-on-year. [Studies have shown](#) that repeat exposure to climate denial claims makes them appear more credible and persuasive, even for those who report being worried about the climate crisis.
- **A handful of ‘super-spreader’ accounts have an outsized role in amplifying and mainstreaming these claims.** Most notably, Wide Awake Media was linked to multiple spikes in activity on X – an account [previously found](#) to drive trends like #climatescam, whose audience on the platform has grown from just 322 followers in March 2023 to over 578k followers in November 2024 (a 1,750x increase). Most key amplifiers engaged in ‘issue stacking’: placing false claims about climate alongside misinformation and conspiracies on other issues (e.g. public health, ‘racial purity’, elections).
- **Legacy media regularly publish sensationalised articles about renewables, bolstering efforts to discredit the energy transition.** This includes reporting on isolated incidents, which are weaponised to condemn renewables writ large, as well as platforming individuals who make misinformative or adversarial claims about such technologies.

Case Study 2: Weaponising Wildfires on X and YouTube

- **Wildfire discourse online is increasingly linked to conspiracy theories around geo-engineering and plots enacted by governments or 'elites'.** Such content actively seeks to decouple extreme weather from environmental drivers, in particular [how climate change is increasing](#) the frequency and severity of such events. Viral narratives focus all the blame on arson or poor forest management while using phrases like 'climate hoax'; the apparent intent is to downplay clearly established science in the face of more intense large wildfires and a longer wildfire season.
- **Widely shared posts claimed that wildfires were deliberately started using Direct Energy Weapons (DEW).** Content relating to [wildfires in Maui](#) was especially prominent, including baseless claims they were part of an orchestrated 'land grab' by celebrities or US Federal agencies. These conspiracies spread both on X and YouTube, amplified by verified accounts with millions of followers.
- **One video was posted by [Benny Johnson](#) and received over 500k views.** Johnson is affiliated with [TurningPoint USA](#) and has been a key contributor to right-wing outlet Tenet Media. In an investigation made public in September 2024, the [US Department of Justice found](#) that Tenet was funded by Russian operatives as part of a [large-scale influence operation](#). A subsequent [CAAD study revealed](#) that climate misinformation from Tenet's accounts and associated creators garnered over 23.5 million views and 1 million engagements from September 2023 to September 2024.
- **Anti-climate actors also weaponised wildfires to oppose climate policies, including [Canada's carbon pricing scheme](#).** Popular posts argued that wildfires in Alberta proved funds were not being used for their stated purpose and called on the government to cancel the levy entirely. Some accounts also spread unverified claims that the Canadian authorities had obstructed efforts by frontline responders.
- **It should not be assumed that direct experience of extreme weather will, by default, make people more supportive of mitigation and adaptation efforts.** As [we saw in the wake of COVID-19](#), fear and trauma are often disempowering emotions and [create fertile territory for conspiracies to thrive](#). Faced with the dire impacts of climate change and the extent of system change needed in response, mis- and disinformation may offer a more comforting (albeit false) version of reality.

Case Study 2 Addendum: Hurricane Misinformation on TikTok

- **Conspiracies spread rapidly after [hurricanes Helene and Milton made landfall in the US](#).** Popular content falsely claimed the Federal Emergency Management Agency (FEMA) was withholding aid, confiscating supplies, or preventing residents from leaving affected areas. These baseless allegations became so widespread that the [White House](#), [FEMA](#), [state](#) and [local](#) officials, and media outlets were all forced to issue fact-checks, in part to prevent [threats of violence](#) from escalating and [endangering frontline responders](#).
- **Other high-traction posts falsely claimed the hurricanes were not a natural occurrence, but rather engineered** with the goal of devastating North Carolina and clearing land for a lithium mining operation. Just one video amplifying this conspiracy gained over 1.8 million views.
- **In another case, users posted videos asking their Amazon Alexa (a smart speaker) unanswerable questions about the hurricane.** The device [provided inaccurate answers pulled from fandom.com](#), a user-generated entertainment and gaming platform, sparking conspiracy theories that garnered over a million views on TikTok.
- **Researchers identified credible threats against FEMA personnel and aid workers, as well as calls for ‘civil war’ that garnered millions of views** across the platform. Such content described officials as ‘enemies of the state’ and promoted the formation of militias and armed convoys in response. This reinforces how extreme weather events can be weaponised to drive violence, and the growing nexus between climate impacts, conspiracies, and broader political division.

Case Study 3: Fossil Fuel Advertising on Meta (CAAD)

- **Despite frequent statements from the fossil fuel industry on reaching net zero by 2050, [this is not borne out in their disclosed business plans or activity](#).** Nonetheless, advertising is continually used to launder the industry’s image, likely causing further critical delays to the energy transition.
- **From 24 October 2023 to 24 October 2024, just eight fossil fuel entities paid Meta upwards of \$17.6 million for advertising and garnered 700 million impressions.** Of the four companies tracked, BP spent the most across its two entities in the UK and the United States. However, two industry backed lobbying groups – Energy Citizens and America’s Plastic Makers – were the highest spenders in our overall dataset.
- **Such figures only represent the tip of the iceberg, even when looking solely at Meta.** The [difficulty](#) in obtaining useful data from platforms’ existing ad libraries is acute – in particular, they are often limited to adverts labelled as ‘Social Issues, Elections or Politics’ (SIEP) by the advertiser itself.

- > The adverts analysed in our dataset broadly fell under three pillars:
 - **Greenwashing**, in particular pushing fossil-fuel oriented approaches like Carbon Capture or emphasising 'efficiencies' in existing oil and gas operations.
 - **Presenting fossil fuels as essential** and even a 'low carbon' component of the energy transition, especially to bolster the US and UK economies during difficult moments.
 - **Lobbying for changes in policy** either at the state or federal level in the US.

Adverts from Energy Citizens – [a front group](#) – were more overtly advocacy based
> **compared to the direct marketing of fossil fuel companies.** As the biggest spender in our dataset, its content was broadly split into two buckets: criticising government policy, and pushing fossil fuels as an essential source for 'energy security' or 'energy independence'.

America's Plastic Makers (APM) was the only account reaching more women than men
> **with its adverts.** All expenditure for this account went into campaigns presenting APM's 'sustainable plastics' as a means to lower emissions.

Natural Allies for a Clean Energy Future reached younger audiences on average, with
> **adverts promoting the importance of natural gas.** Content implied this is because renewables are "intermittent" and framed natural gas as equally if not more affordable and secure than renewable alternatives.

Adverts frequently implied there is no need to reduce oil and gas extraction to achieve
> **reductions in CO2 emissions.** Such content often promoted "renewable fuels", hydrogen, "operational efficiencies", carbon offsets, and described Carbon Capture and Storage as a "proven solution" to reduce emissions. A cited analysis of why this claim is misleading can be found in [CAAD's Special Edition briefing from COP28](#).

Many ads not labelled as 'Social Issues, Elections or Politics' are likely no longer visible,
> **since they are not routinely maintained on the ad library.** Some accounts analysed in this case study are also running non-SIEP advertisements for undisclosed quantities of money; Meta does not provide transparent information about which non-SIEP advertisements are archived or not.

Meta and its counterparts should, by default, classify all adverts as SIEP if they stem
> **from the fossil fuel industry and its trade associations, lobbies and front groups.** At the very least, this would enable transparent monitoring of the issue by researchers and watchdogs, and provide the evidence base for public debate on advertising standards or oversight.

Some argue even greater transparency is insufficient and that, like the tobacco industry,
> **all fossil fuel advertising should be banned** as a global public health measure – a call to action that United Nations Secretary General Antonio Guterres [actively championed](#) in June 2024 and has [already been introduced](#) at a city level in The Hague.

Case Study 1: Opposition to Renewables

Methodology

CAAD sought to analyse discourse surrounding renewable energies over a one-year period, from 1 September 2023 to 1 September 2024. Using a list of relevant keywords, researchers identified available posts on X (formerly Twitter) with the tool Brandwatch, albeit constrained by data access – most notably, the fact that the platform has monetised access to its API and that third party tools offer limited functionalities to interrogate large datasets. A full Methodology can be found in Annex 1.

To complement the analysis, CAAD also identified the top 50 online news sources in Australia, the UK and US (as ranked by [online aggregators](#)) and searched for articles hosted on those sites containing the same keywords. A handful of indicative moments in the news cycle were chosen for analysis, when discussion about climate change and renewables would likely be most salient.

This included:

- > COP28 (30 Nov - 13 December 2023)
- > The days immediately preceding, during and after Earth Day (20-24 April 2024)
- > UK general elections and Hurricane Beryl in the US (1-14 July 2024)
- > [Closure of the UK's](#) last coal power plant (28 September-2 October 2024)

Activity and Engagement on X

The graphs below show the volume of content posted containing our renewables keywords across the year. Due to the inherent limitations of keyword-based approaches (see Annex 1), these should be seen as indicative and cannot fully reflect the debate surrounding renewables on the platform. It is not always possible to anticipate the language used by posters, while common keywords can also draw in irrelevant data ('noise'). Despite these limitations, our findings indicate that **activity has remained relatively stable in volume over the last 12 months.**

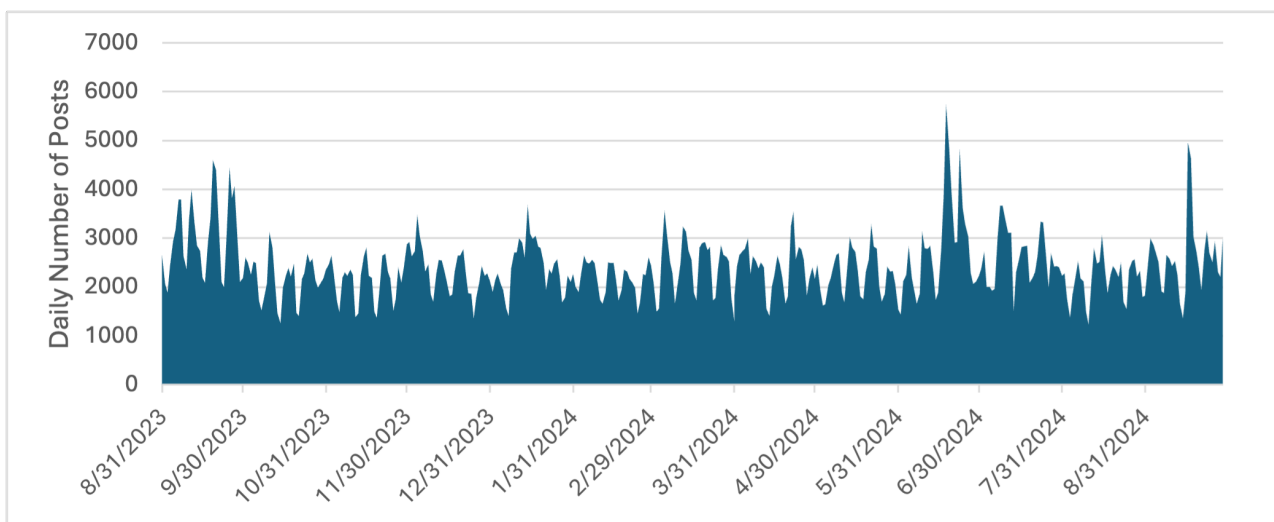


Fig. 1: Daily number of messages posted on X containing renewables keywords from 1 September 2023-1 September 2024. Three notable spikes occurred on 20 and 24 June, as well as 17 September 2024.

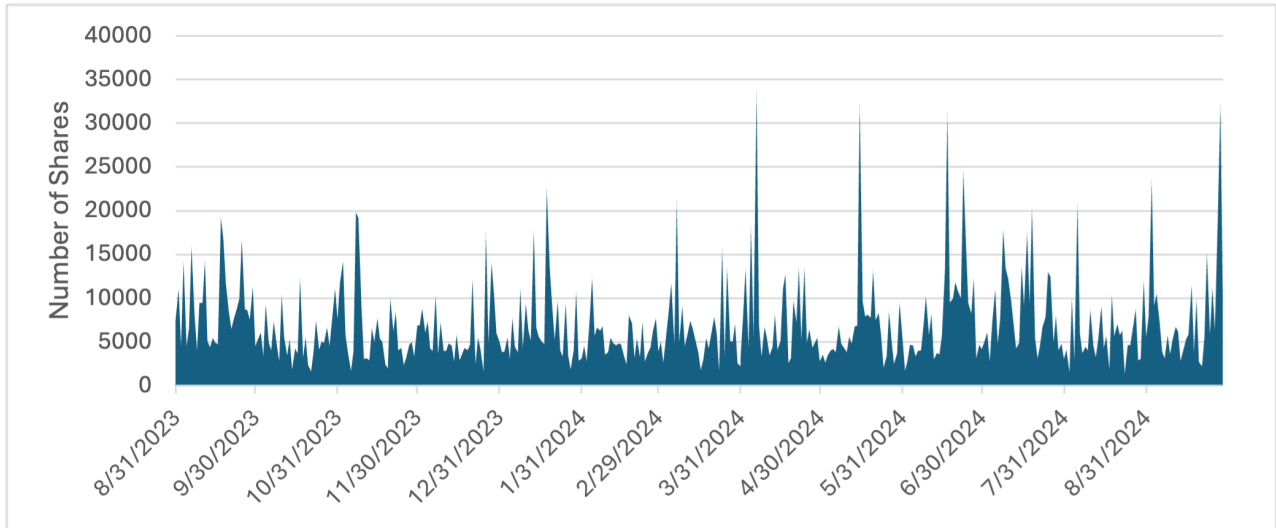


Fig. 2: Number of shares for daily posts containing renewables keywords on X from 1 September 2023–1 September 2024. Peaks above 30k retweets occurred on 7 April, 16 May, 18 June and 29 September 2024

While the volume of discussion remained broadly stable, a few notable spikes were driven by the sharing of viral content. For example, **peaks on 7 and 16 May 2024 relate to a series of posts by [Wide Awake Media](#), an account which grew from just 322 followers to 578k in the 18 months from March 2023 to September 2024 (more than a 1,750x increase).** Wide Awake Media has been found to regularly [spread and amplify content with overt climate denial messages](#), as well as linking to a website [selling merchandise with anti-climate slogans](#) (e.g. ‘the climate scam’ and messages that promote the [Great Reset conspiracy](#)).

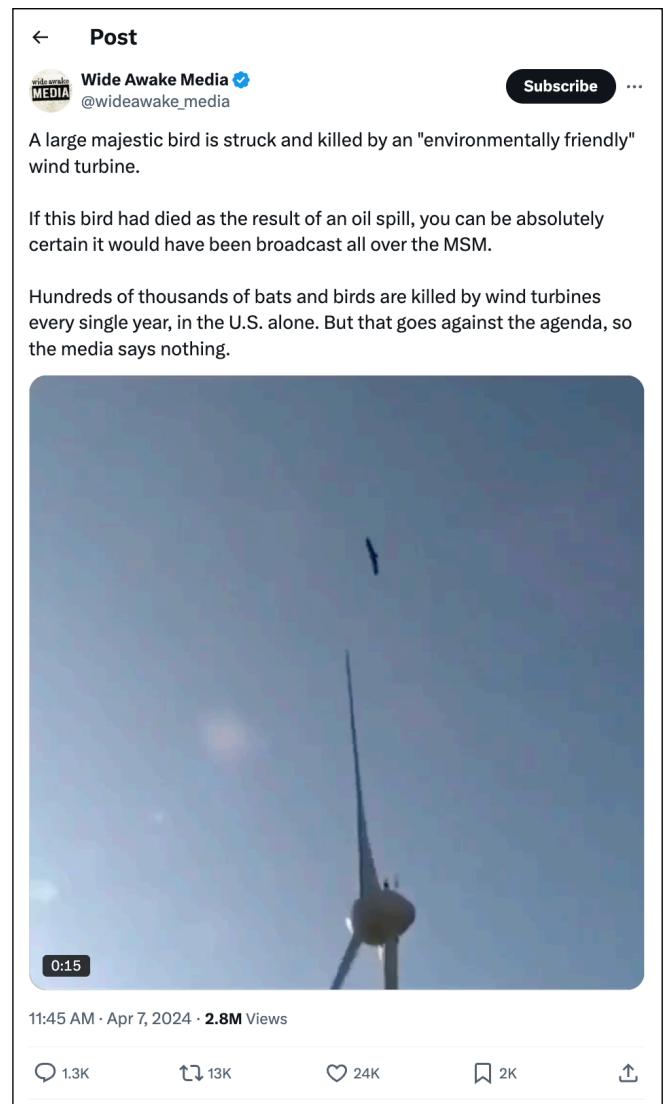


Fig. 3: Widely shared post on 7 April 2024, driving spike in engagement. It is notable that the same footage with near-identical text was shared by Wide Awake Media multiple times, including versions in March, June and September 2024 that cumulatively achieved an additional 1m+ views.

On 18 June 2024, another spike in shares was driven by a misinformative post which claimed animals are suffering from lack of shade due to forests cleared for wind turbines (see further analysis below). One widely shared post that day came from the account of **former Australian MP Craig Kelly**, who has previously been accused of [spreading climate misinformation](#) and [content that denies the role of climate change](#).

The post shows an infographic of whales theoretically caught in offshore wind turbine mooring lines, suggesting that wind farms are broadly harmful to wildlife. While this narrative is gaining momentum in Australia [and other geographies like the US](#), scientists have [debunked the claim](#) that wind turbines cause excess deaths of whales.

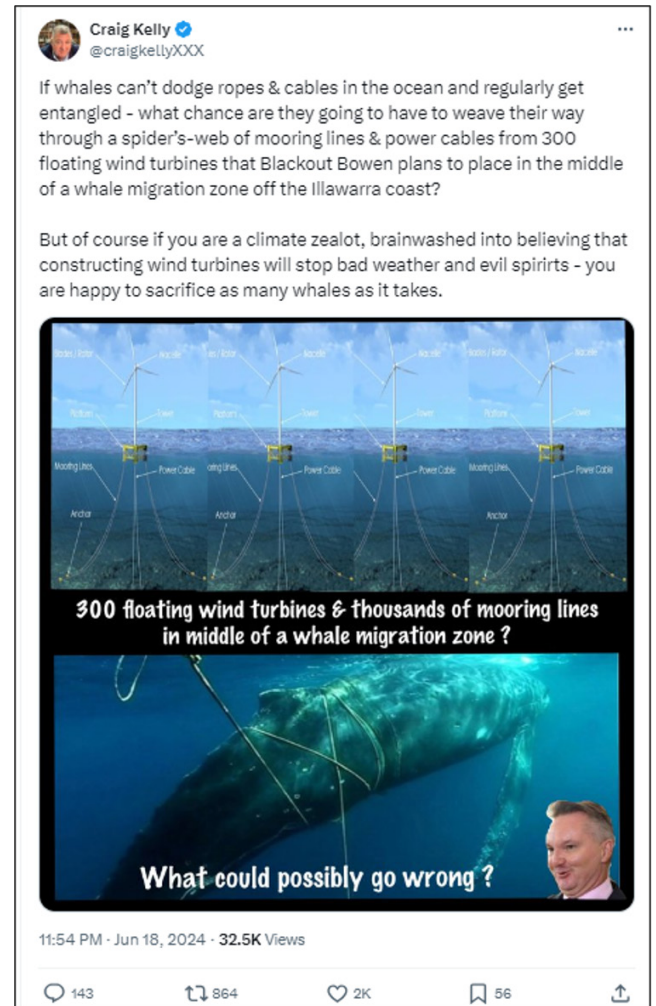


Fig. 4: Post by former Australian MP Craig Kelly (147.2k followers) on 18 June 2024. Kelly's bio on X states he was "censored by Facebook and You Tube for truth telling".

Key Narratives and Tactics

Prominent narratives in the dataset reflect those identified in [previous Deny Deceive Delay reports](#), showing how consistent anti-renewables content remains on a year-to-year basis.

- > Key lines of attack include **claims that renewable energies are ineffective, cause accidents, and/or have severe social, environmental and human rights impacts**. Some narratives exploit legitimate reporting and concerns to undermine renewables writ large – this is despite [ample evidence](#) that, overall, such energy sources are cleaner and cheaper than fossil fuels, and that greater investment is central to reducing CO2 emissions and reaching global climate targets.
- > **High traction posts (i.e., receiving the most shares) frequently use short videos of real or alleged incidents involving renewable energy equipment**, especially wind turbines. Much of this content is difficult to verify and of dubious provenance, with some overtly misinformative. Decontextualised footage featuring accidents, for example, can spread rapidly and require time-intensive fact-checking (see examples below). In many cases, images or videos cannot be sourced using standard tools (e.g. reverse search on TinEye) – this means social media users have little recourse to debunk claims.

1) Unreliability

Claims that renewable energies are ineffective remain a key line of attack. Popular posts cherry pick various alleged or real isolated incidents in which turbines collapsed or failed to produce electricity, as ostensible ‘proof’ that wind energy writ large is unreliable. The page Wide Awake Media (578k followers) produced several such posts, as shown below.

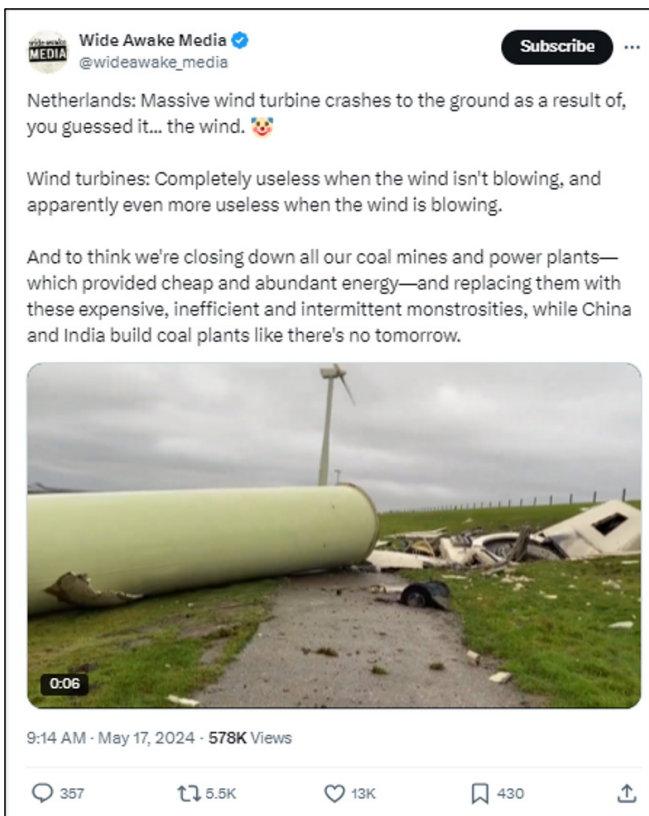


Fig. 5: High-traction post from Wide Awake Media, with 13k likes, 5.5k retweets and 578k views. The image shows an isolated accident in the [Netherlands](#).

Other posts argued that fossil fuels are necessary to meet domestic energy needs, with apparent intent to undermine the role of renewables in tackling the climate crisis. This is a tactic we evidenced in depth in [Deny, Deceive, Delay Vol.2](#). Examples of this content include a video shared by US Congressman Matt Rosendale, in which he walks past a wind turbine in snowy weather and claims they do not function in such conditions. While extreme weather conditions, including ice, can sometimes interfere with wind turbines’ proper functioning, studies [have shown](#) that output during the winter months remains consistent and that turbines are designed to [withstand](#) temperatures of around -30 degrees Celsius. According to a [peer-reviewed study published in Nature Energy](#) in October 2024, energy systems with higher levels of solar and wind are also *less likely* to suffer blackouts or extreme weather vulnerability.



Fig. 6: High-traction post from Wide Awake Media, with 7.8k likes, 3.4k retweets over 416k views. The origin of the footage in the post could not be readily determined with reverse image search tools such as TinEye. The video closely resembles one [published on Wind Watch](#), a website which purports to present ‘the facts about industrial wind power’.



Fig. 7: Post by Republican Congressman for Montana, Matt Rosendale (71.7k followers), with nearly 1m views, 23k likes and 9.7k retweets

2) Environmental Impact

High traction posts often focussed on the environmental toll of renewable energies, citing alleged or real examples of pollution related to mining. Many also emphasised the supposed impact on wildlife. One post with over 5 million views claimed to show animals suffering from heat and lack of shade due to forests cleared for wind farms – the poster is a self-described ‘political prisoner’ of the US Capitol insurrection on January 6, 2021. The post now appears with a contextual label (‘Community Note’) pointing out the misleading nature of the image; this does not appear to have impacted its virality



Fig. 8: Post by Derrick Evans (73.8k followers) on X, claiming that animals are suffering because of land clearance for wind farms, and the associated Community Note

Once again, Wide Awake Media were notably active on this topic. **Several posts shared uncited footage and claimed – without evidence – that ‘hundreds of thousands’ or ‘millions’ of birds die in collisions with wind turbines.** While such incidents can occur, experts estimate that fatalities are **much lower** than the number of bird deaths caused by fossil fuel industries. Posts by the account also alleged to depict a dead eagle (a symbol, for many, of US pride), though the origins of this image could not be verified. The same photograph **was found** on various pages opposing wind energy across social media platforms.

Other posts identified in the dataset highlighted **waste and pollution relating to renewables, using deceptive pictures of alleged wind turbine ‘graveyards.’** This included a post by Wall Street Silver, an account dedicated to investments in precious metals which spreads conspiracy theories about the World Economic Forum, as previous CAAD research **has shown**. The post **falsely claims** that no part of wind turbines can be recycled. Notably, the account benefits from ‘gold tick’ status, meaning it has been verified as an official organisation by X – a level up from the more common ‘blue tick’ available for X Premium subscribers.

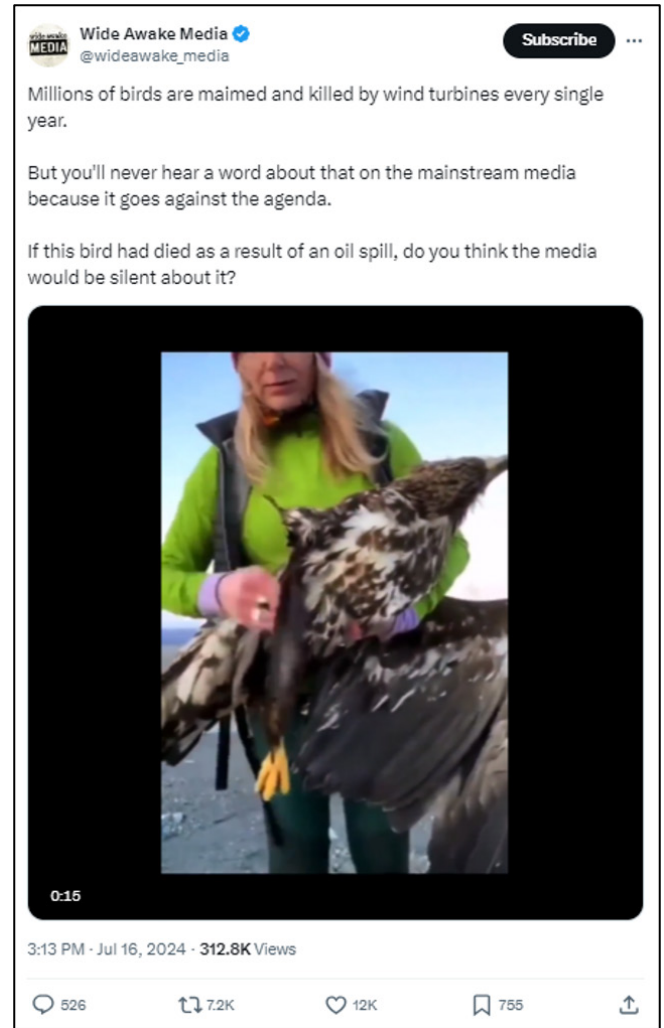


Fig. 9: Indicative post on X alleging that large numbers of birds are killed by wind turbines



Figs. 10 and 11: Examples of high-traction posts discussing wind turbine 'graveyards' on X, from Wide Awake Media (578.9k followers) and Wall Street Silver (1.4m followers).

3) Child Labour and Human Rights

Many accounts that regularly share misinformation were also found to use **'woke-washed' claims** relating to the environment and human rights, in a seeming attempt to discredit renewables. As [documented in reports since 2021](#), these attacks are especially relevant to electric vehicles (EVs) and the mining of metals or rare earth minerals needed to produce their batteries.

Several top posts mentioned [reports](#) about child labour and other human rights violations in the Democratic Republic of Congo (DRC), a key hub for cobalt mining. This includes posts by former anti-lockdown campaigner and [anti-climate PR consultant James Melville](#) (see below). Melville and others use legitimate human rights concerns as part of a broad-ranging strategy to oppose renewables; their interest in human rights appears to relate solely to energy and climate policies.

Such content was not limited to climate sceptic or "delayist" accounts; analysts observed users who self-describe as progressive or left-leaning also condemn human rights violations in the DRC. Posts tended to focus on corporate malpractice, including critiques of 'neo-colonialism' and extractivism. Crucially, however, this content does not oppose renewables and generally supports wider climate action. By contrast, the co-option of such concerns by the anti-climate movement can flatten [complex realities](#) around the energy transition and ethical supply chains. In many cases, this also allows anti-climate actors to generate engagement on their content through an ostensibly 'progressive' lens, concealing their wider objectives (i.e., to discredit renewables, or advocate for continued reliance on fossil fuels).

Extreme Weather, Extreme Content: How Big Tech Enables Climate Disinformation



Figs. 12 and 13: High-traction posts relating to EVs and cobalt mining, shared by James Melville on X (528.3k followers)

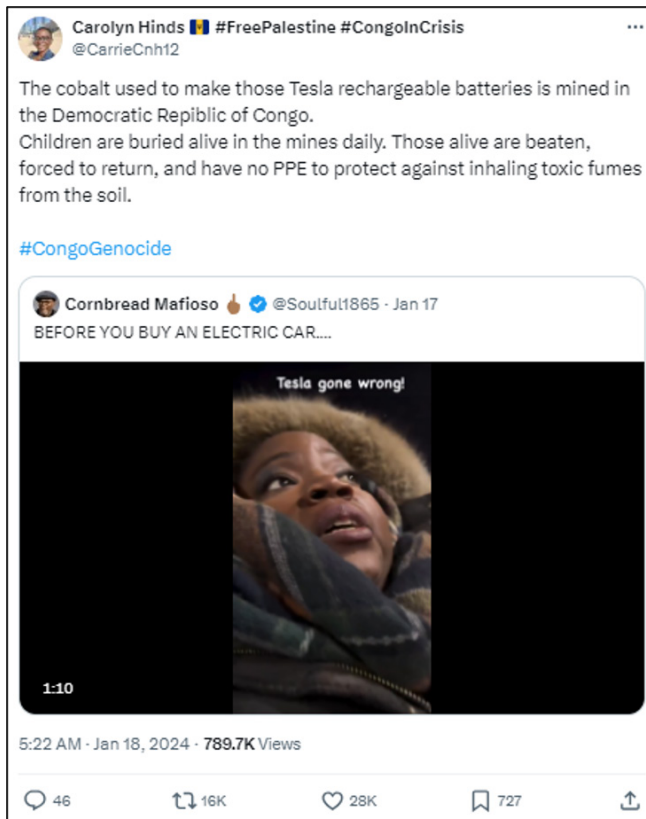


Fig. 14: Example of progressive criticism of cobalt mining, shared by Carolyn Hinds on X (12k followers). Hinds' regular posts on this issue are not specific to EV companies like Tesla, regularly calling out other (non-renewables) companies such as Apple, Google and disposable vape providers.

4) Accidents and Hazards

In October 2023, a fire [led to the collapse](#) of a carpark at Luton Airport near London, UK, and affected more than 30,000 passengers' journeys in the aftermath. Social media [was quick to ascribe blame](#) to EVs. While the official incident report ultimately [identified](#) a diesel car as the culprit, **false claims about battery fires remain a common line of attack**. Previous CAAD research has also [explored](#) how alleged or real accidents involving renewable energy equipment are used to spread mis- and disinformation about climate science.

Accounts known for spreading anti-climate content shared images to this effect. One post by Bernie Spofforth, [an anti-lockdown campaigner during COVID-19 and regular amplifier of climate conspiracies](#), alleged to show debris from a wind turbine near a beach in Nantucket.



Fig 15: Post using Nantucket wind turbine incident to criticise climate targets, shared by Bernie Spofforth's new account on X (65.8k followers). Media reports highlighted Spofforth's role in sparking far-right riots across the UK in August 2024, which led to a police investigation and her decision to suspend her previous account (which had more than 55k followers at the time).

Equally, **tabloid newspapers in our dataset published several sensationalised stories about accidents involving wind turbines**. Other outlets emphasised safety concerns among local communities in a given country or region. These examples demonstrate how politically-motivated attacks on renewables can co-exist - or often weaponise and seek to heighten - legitimate questions from the general public.



Fig 16: Example of a sensationalised 'clickbait' story in The Sun about an accident related to wind turbines. Even when factually accurate, the framing of some articles serves to undermine the renewable energy sector writ large.

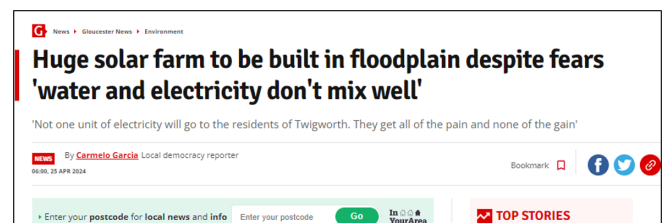


Fig 17: Example of story by local outlet Gloucester Live about residents' safety concerns.

During bushfire season in Australia ([October-March](#)), several local outlets reposted a video featuring Sky News host Paul Murray, in which he argues that renewable energy facilities are a fire hazard and increase the risk of bushfires.

While experts have [highlighted the need](#) for careful risk management around renewable energy facilities to reduce unintentional ignitions, the conditions created by [climate change itself](#) increase both the likelihood and intensity of bushfires in Australia.

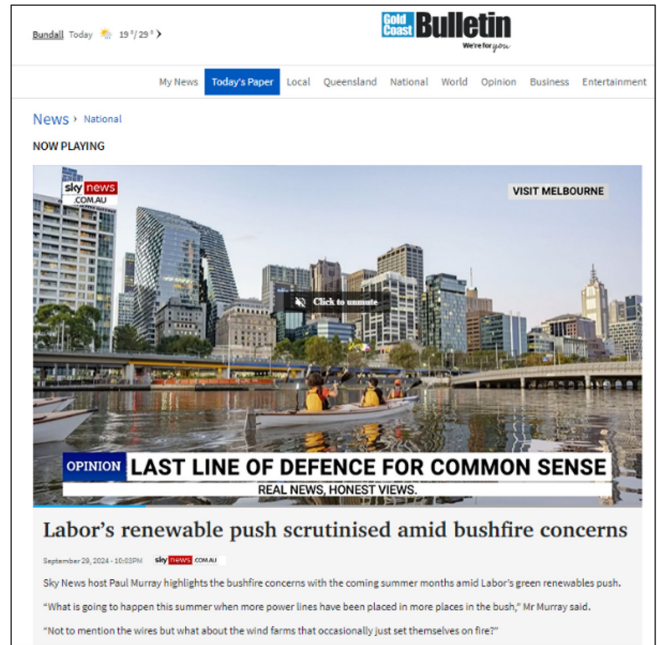
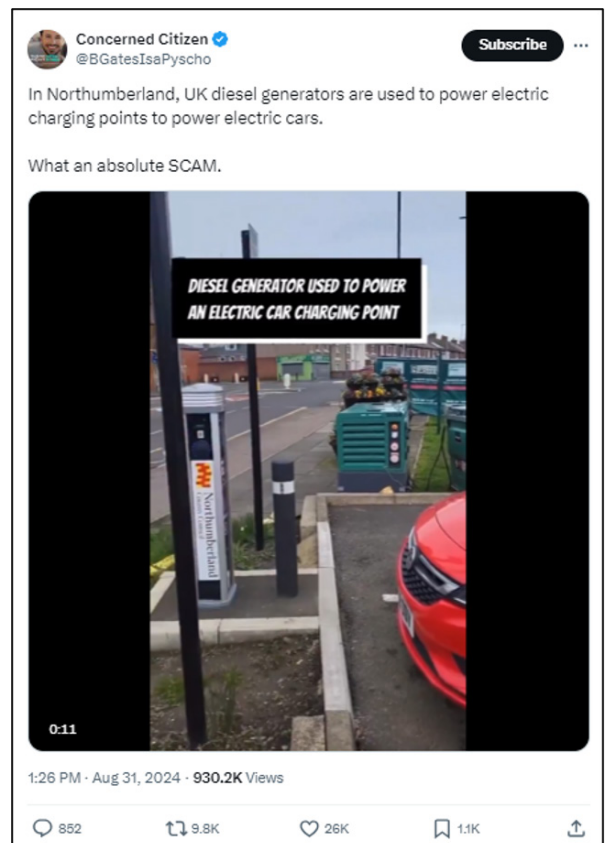


Fig. 18: Sky News video reposted by a range of local Australian outlets including the Gold Coast Bulletin

5) Ineffectiveness

Analysts found isolated examples used to argue without evidence that renewables are defunct or 'propped up' by fossil fuels, a long-standing claim featured in CAAD's first Intelligence Unit report from COP26. That year, debunked posts alleged that the summit in Glasgow had been powered by diesel generators. Popular content in the latest dataset suggest these claims continue to generate engagement and normalise climate opposition. Recent examples falsely claim that diesel generators powered an electric vehicle charging point in Northumberland and a wind farm in Scotland. Those sharing such content include Concerned Citizen, a self-described 'conspiracy realist' account with the handle 'BGatesIsAPsycho' (671.3k followers), and Peter Sweden, a right-wing influencer who frequently shares conspiracy theories about the UN, World Health Organisation and other institutions (775k followers).

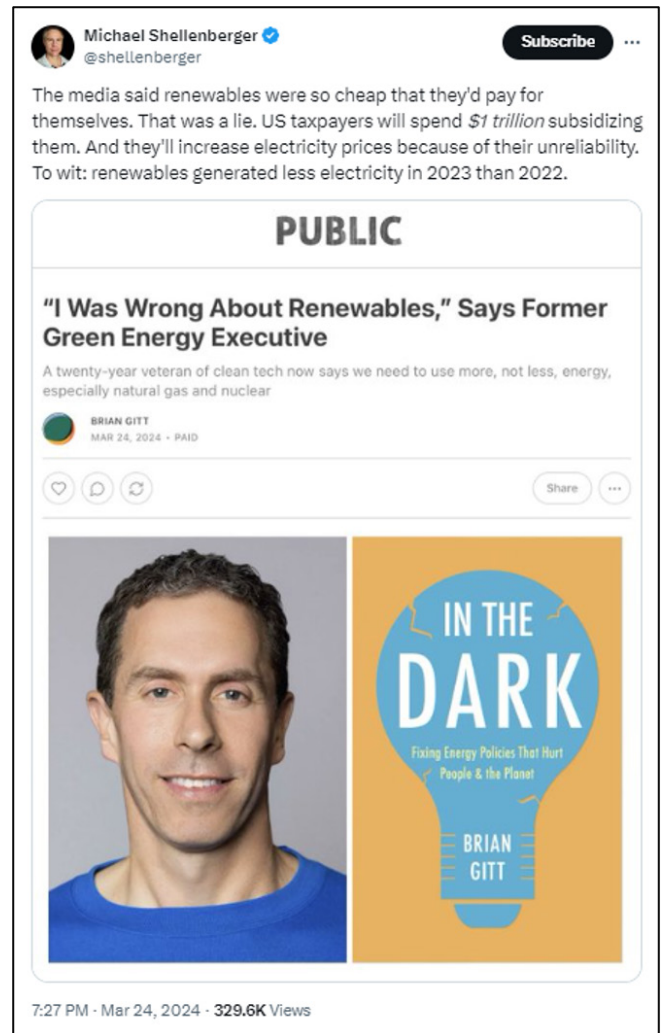


Figs. 19 and 20: Examples of posts making unverified claims that diesel generators are necessary to power renewable technologies, from Concerned Citizen (671.3k followers) and PeterSweden (775k followers) on X. Fact checkers have consistently debunked the claim that diesel generators are used to power charging points.

6) Cost of Living

Some viral posts in the dataset weaponised concerns over cost of living and described renewable energies as prohibitively **expensive**. Several of the highest traction examples came from Michael Shellenberger (1.1m followers), a self-described environmentalist who has [a strong track record of downplaying the threat of climate change](#) and [discrediting related policies](#). Shellenberger shared a blog post by Brian Gitt arguing that renewables use more energy than fossil fuels – a claim which has been repeatedly [debunked](#) – and that they cost US taxpayers ‘\$1 trillion’. Gitt is an energy consultant who describes himself as a reformed energy ‘utopian’; he regularly uses his social media channels to argue that renewable energies are too costly or unreliable, as well as condemning so-called ‘climate alarmism’. Gitt has also argued that areas of land burned by wildfires [have declined](#), despite [peer-reviewed studies](#) that [demonstrate](#) the [opposite trend](#) in recent years. By some estimates, global climate finance [reached USD \\$1 trillion](#) in 2021, but this funding was neither sourced primarily through tax increases nor specific to the US.

High engagement content also included a post from Richard Tice, MP for Reform UK, who has [shared climate misinformation](#) on social media and is [known for his opposition to Net Zero targets](#). Tice **claimed that renewable energies are to blame for high electricity prices in the UK**, citing an article in The Telegraph and receiving over 150k views. Analysis by Carbon Brief [has shown](#) that on the contrary, energy bills have been inflated by lack of investment in renewable energies, making households more vulnerable to the energy crisis.



Figs. 21 and 22: Example of posts claiming that renewable energies are too costly to consumers, shared by Michael Shellenberger on X (1.1m followers)

An analysis of media headlines around key moments in the news cycle echoed these findings. CAAD found that **conservative outlets and tabloids across the Anglosphere frequently amplified attacks on renewables, generally by quoting public figures and influencers making anti-renewable claims.** Media coverage was particularly focused on cost-of-living considerations and accusations of 'elite hypocrisy'. Sky News Australia, [previously highlighted](#) as a hub for anti-climate content, emerged as a significant platform for such content. Multiple interviews and opinion pieces published by the news site amplify commentators like MP Keith Pitt, who emphasise the alleged unreliability and inefficiency of renewables and describe the energy transition as 'elitist' or divorced from consumers' concerns.



Figs. 23 and 24: Examples of media interviews published by Sky News Australia that allege the unreliability of renewables. [Deny, Deceive, Delay Vol. 1](#) showed how this outlet acts as a key hub for climate scepticism and discourses of delay at a transnational level.



Fig. 25: Example of opinion piece published by Sky News Australia presenting renewable energy as socially harmful.



Fig. 26: Post by Reform UK MP Richard Tice (298.7k followers), linking renewable energies and cost-of-living concerns.

7) 'Social Control'

Research has previously unpacked [how COVID-19 turbocharged fears of so-called 'climate lockdowns'](#), which have since morphed into broader conspiracy theories around population control, government plots and elite power. Such narratives remain prominent in the most frequently shared posts analysed for this report. **Renewable energies are regularly presented as a tool for social control**, driving opposition to various policies and environmental measures. One post by [Steve Milloy](#) – director of the [Heartland Institute](#) and a key originator of the 'climate lockdown' conspiracy – called the UK government's decision to ban new petrol-fuelled motorbikes by 2030 'totalitarian' and branded climate change a 'hoax'. Another post by Peter Sweden called climate change 'an excuse to control your life'.

Top shared posts also contained conspiracy theories related to Hurricane Helene – an event explored in Case Study 2. These [falsely argued](#) that the hurricane was orchestrated by nefarious actors to mine lithium, including from an account presenting itself as an 'independent researcher' and 'photography & video analyst'. This account posted various visuals predicting that [hurricanes will happen on US election day](#) and suggesting they were geoengineered to enable voter

suppression in Republican-leaning states.

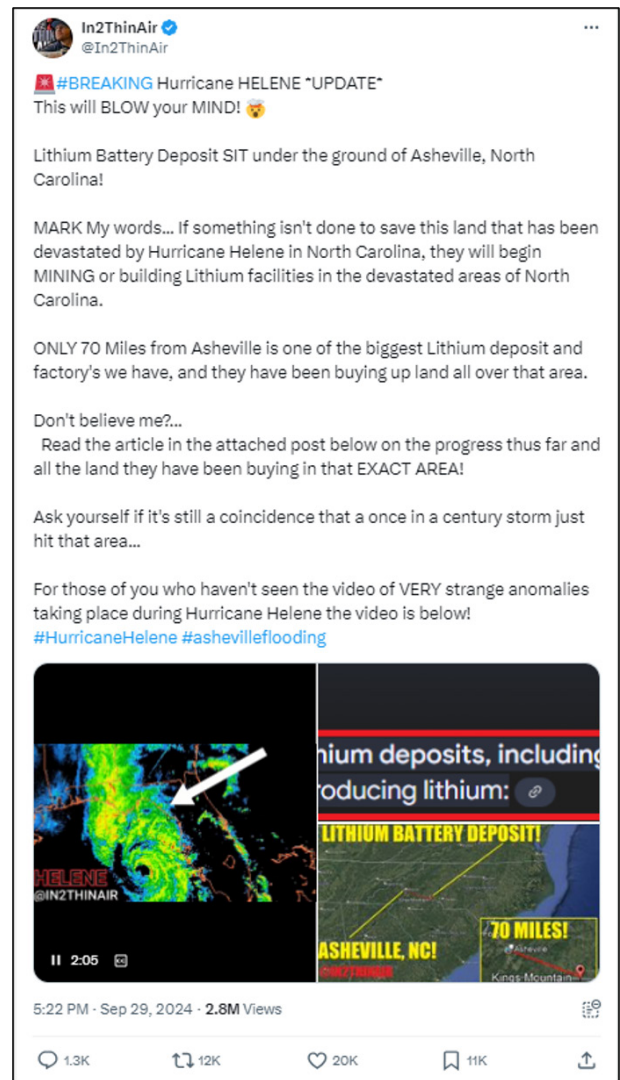


Fig. 28: Indicative post spreading conspiracy theories about Hurricane Helene, shared by In2ThinAir (145.8k followers). It garnered nearly 3m views, 20k likes and 12k retweets.



Fig. 27: Example of conspiratorial post likening climate action to social control, shared by Peter Sweden (775k followers).

Key Amplifiers

Previous editions of *Deny, Deceive, Delay* have documented the outsized role of ‘super-spreader’ accounts in creating and amplifying anti-climate content. In the last year, a handful of such accounts produced most of the top 100 shared posts opposing renewables, including overt mis- and disinformation. An overview of key amplifiers is presented below.

In [last year’s report](#), CAAD highlighted the central role played by **Wide Awake Media** in popularising #ClimateScam, as well as the account’s rapid follower growth. Having originated as a Telegram channel focussed on anti-lockdown and anti-vaccine content, [it announced a pivot to anti-climate messaging on X](#) in 2022. The account remains a central node for misinformation on the platform, **accounting for 15% of all posts in our dataset that crossed 1,000 shares**. Since last November, Wide Awake’s follower count more than doubled, increasing over 1,750 times since March 2023 (from just 322 followers to over 578k). As highlighted above, its viral content has driven several spikes in anti-renewable activity throughout the last 12 months.

| | | |
|---|---|---|
| Follower count | Over 578k | |
| Posts over 1,000 shares | 53 | |
| Posts in dataset | 101 | |
| Cumulative engagement in dataset | 195K shares / 377k likes | |
| Blue Tick? | Yes | |
| Top 3 posts in dataset | | |
| http://twitter.com/wideawake_media/statuses/1791059453648728113 | http://twitter.com/wideawake_media/statuses/1777007842089664754 | http://twitter.com/wideawake_media/statuses/1776924341856280941 |
| 1.5M Views 17k Shares 30k Likes | 859k Views 13k Shares 25k Likes | 2.8M Views 13k Shares 24k Likes |

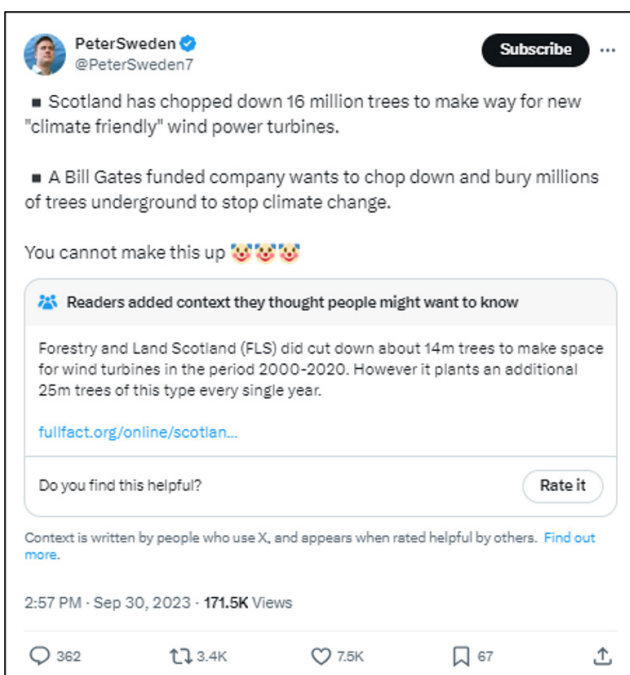
Political pundit **James Melville** previously [campaigned against Covid lockdowns](#) and has been a vocal [player](#) in recent farmers’ protests, founding the group “No Farmers, No Food.” His posts on renewables were prolific in our dataset, appearing even more frequently than Wide Awake Media.

| | | |
|---|---|---|
| Follower count | Over 527k | |
| Posts over 1,000 shares | 30 | |
| Posts in dataset | 115 | |
| Cumulative engagement in dataset | Over 95k shares / over 207k likes | |
| Blue Tick? | Yes | |
| Top 3 posts in dataset | | |
| https://x.com/JamesMelville/status/1816727480406822917 | https://x.com/JamesMelville/status/1805379677210771580 | https://x.com/JamesMelville/status/1751909761866424501 |
| 333k Views 6.8k Shares 10k Likes | 242k Views 4.9k Shares 14k Likes | 269k Views 4.3k Shares 6.6k Likes |

PeterSweden is the online pseudonym of commentator and [Substacker](#) Peter Imanuelsen. His posts regularly condemn renewable energies and claim they are part of a ‘[climate scam](#)’, while also describing climate policies as an [elite conspiracy or a form of ‘communism](#)’. Notably, our dataset only captured a handful of relevant posts across the year, but practically all of them appeared in the high traction sample with thousands of shares.

| | | |
|---|---|---|
| Follower count | Over 775k | |
| Posts over 1,000 shares | 17 | |
| Posts in dataset | 19 | |
| Cumulative engagement in dataset | Over 92.7k shares / over 290k likes | |
| Blue Tick? | Yes | |
| Top 3 posts in dataset | | |
| http://twitter.com/PeterSweden7/statuses/1722214647535956029 | http://twitter.com/PeterSweden7/statuses/1740478312290701740 | http://twitter.com/PeterSweden7/statuses/1765761054607347818 |
| 393k Views 10k Shares 30k Likes | 578k Views 8k Shares 22k Likes | 250k Views 6.8k Shares 19k Likes |

Several other accounts repeatedly achieved high traction. This includes 10 posts respectively from **British MP and Deputy Leader of the Reform Party, Richard Tice, and the anonymous account “Concerned Citizen”** with over 660k followers, whose Twitter bio states its main concerns as “geo-engineering,” “mRNA” and “Woke Ideology”.



Figs. 29 and 30: Posts by Peter Sweden containing false claims about deforestation and wind energy in Scotland. Repeating a false claim can help to generate engagement and create the impression of ‘critical mass’ on a social media platform – it has also been shown to [increase the effectiveness of such claims on people’s beliefs](#).

Conclusion

Mobilisation against renewables appears consistent with trends highlighted [in previous reports](#), at least on X. Indeed, while newer examples may be used, the fundamental attack narratives have barely shifted since CAAD’s first flagship analysis in [Deny, Deceive, Delay Vol. 1](#) (published after COP26). The role of key amplifiers remains notable, as does the high engagement on narratives that centre alleged unreliability or dangers relating to wind, solar, and electric vehicles. ‘Super-spreader’ accounts frequently shared misleading or false claims about renewable energy’s impact on wildlife and weaponised legitimate reporting on human rights to discredit the energy transition. In addition, the highest traction content reveals how accounts repeat claims and imagery over time; thereby embedding misinformation in online discourse and increasing its potential impact on public perceptions.

Case Study 2: Weaponising Wildfires

In 2023 and 2024, the world [experienced](#) several record-breaking wildfires, notably in [Canada](#), [Greece](#), [the Western Amazon](#), [Hawaii](#) and [Chile](#). Climate scientists [have determined](#) that these fires were made [more likely by climate change](#) and [contributed to](#) substantial CO2 emissions in their own right. [Experts have also warned](#) that the frequency and severity of wildfires is likely to rise in the coming decades, based on current projections for greenhouse gas emissions and global temperature increase.

As wildfires become a more regular and deadly occurrence, they have been weaponised to launder anti-climate views into the mainstream. CAAD’s [research has repeatedly](#) shown how malign actors exploit extreme weather, natural disasters and other crises to spread mis- and disinformation, posing a [growing threat](#) to both public safety and emergency response.

Methodology

For this report, CAAD sought to gain insight into the broad nature and impact of anti-climate messaging related to wildfires. Researchers examined discussions on X, Reddit and YouTube using topic modelling techniques.

This is a machine learning process used to segment large datasets into thematic clusters based on similarities in language. It helps assess how a broad topic – in this case extreme weather – is being discussed, and which ‘sub-topics’ are most salient or impactful within that conversation, without introducing research biases or preconceptions.

Using relevant keywords (see Annex 1), CAAD gathered a **sample of 50k messages on X and Reddit respectively, plus an additional 50k comments sampled from the top 100 most watched videos about wildfires on YouTube**. These messages were computationally analysed and then manually reviewed, leaving 37 clusters which we deemed relevant to wildfires, including 10 related to contrarian or climate-sceptic discourse. Researchers analysed a sample of 50 posts from each cluster to classify them and identify the most prominent themes. Based on these themes, the dataset was computationally analysed again to identify similarities in language and label all relevant messages under these categories. The presence of neatly delineated clusters highlights the consistency of the themes identified.

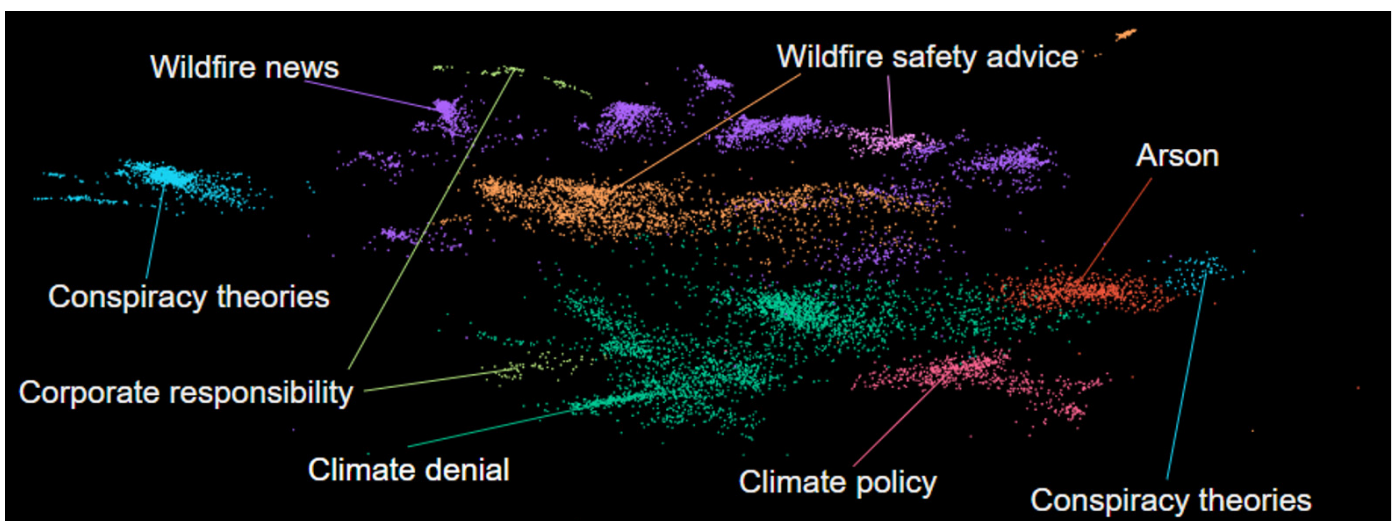


Fig. 31: Overview of key themes identified during the topic modelling stage. Each group of messages (displayed by a colour) contains a similar topic. Topics were manually labelled by a CAAD analyst based on 50 representative posts in each case. The largest three clusters are wildfire news, wildfire safety advice, and climate denial. Arson, climate policy, and conspiracy theories are tightly clustered and significantly larger than topics around corporate responsibility.

The visualisation on the previous page illustrates two things: first, the scale and scope of each theme; and second, how closely the topics clusters (and individual posts) are aligned within each theme. Where labels appear more than once – for example with ‘conspiracy theories’ – this is because posts can be expressing the same theme, as determined by an analyst, but use content and vocabulary that differs.

Due to data access limitations, only a sample of content from each platform could be used for this process. The sample provided insights into key ‘sub-topics’ but could not offer a fuller picture of the accounts or posts driving said discussions. As such, CAAD searched for corresponding content on X, YouTube and Reddit using keywords gathered in the topic modelling. Analysts then manually reviewed content with high engagement to gain deeper insight into key lines of attacks and notable amplifiers in each case. Further detail on the Methodology can be found in Annex 1.

Peaks in Activity

The largest spike in activity took place in the summer of 2024, specifically 25 July. It appears to have been driven by several posts, including one from Raws Alerts on X (1.1m followers) that reported a man was arrested in connection with the [Park Fire in California](#). The account bio for Raws Alerts claims it is a “go-to source for fast and accurate news coverage, specializing in groundbreaking events across the USA”. A second post from the account sonofabench (23.3k followers) claimed that Canada’s Liberal government is to blame for wildfires in Jasper, Alberta, and for failing to train enough firefighters – the account’s bio describes “a Man whose opinions sometimes ruffle feathers”. The relevance of arson claims in wildfire discourse is explored in more detail below.

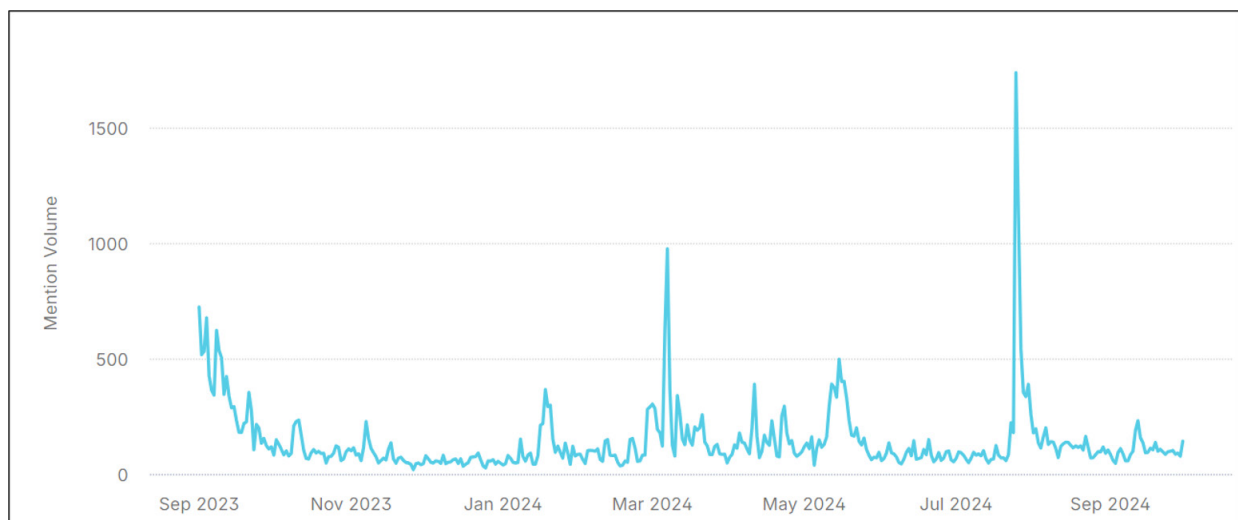


Fig. 32: Volume over time of posts on X relating to key contrarian topics within wildfire discourse. Topics were defined using terminology surfaced during the topic modelling stage.



Figs. 33 and 34: Widely shared posts on X on 25 July 2024. The post from Raws Alerts (1.1m followers) received nearly 1m views, 11k likes and 4k retweets.

A smaller spike took place on 7 March, driven by news that electric utility company Xcel [publicly admitted](#) its facilities contributed to starting the Smokehouse Creek fire in Texas. Several posts reported on the events and came from the accounts of major news outlets, while other accounts amplified the news with unclear motivation. Among the most shared was a post from Shadow of Ezra, an account with over 500k followers which regularly spreads [voter fraud claims](#) related to the US elections and has called wildfires in Hawaii a '[climate change false flag](#)' while also [tweeting](#) about the 'climate scam'.

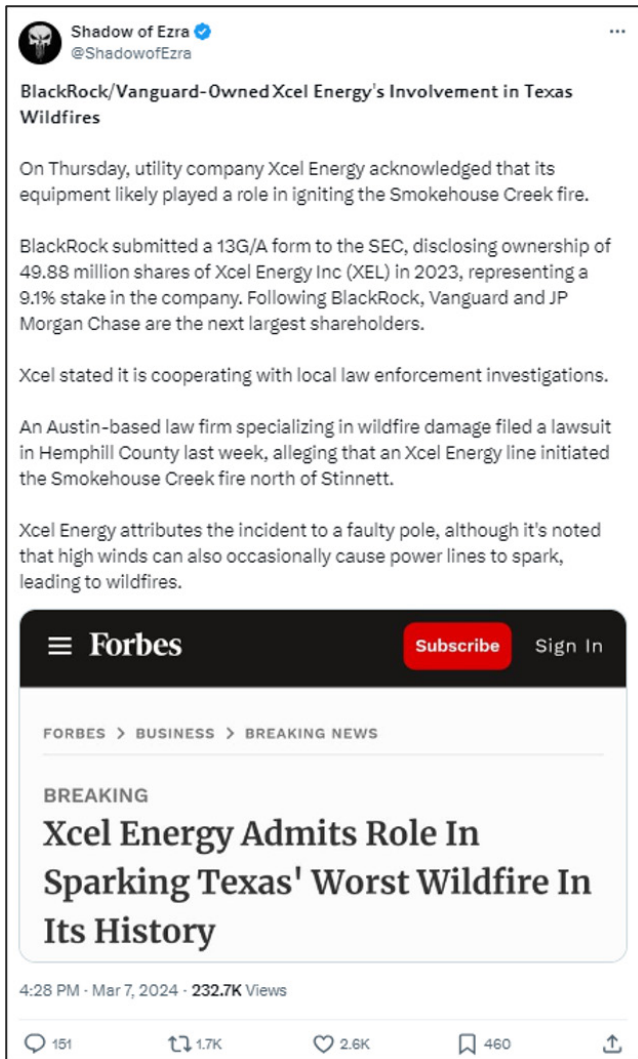


Fig. 35: Post about Xcel's public admission of guilt for Smokehouse Creek fire in Texas, from Shadow of Ezra on X (548.8k followers).

Most Prominent Themes in Wildfire Discourse

Climate Scepticism and Scientific Disagreement

Denying the relationship between wildfires and climate change emerged as a key topic of discussion. On X, several high traction posts referenced an article from *The People's Voice*, a website which has been reported as a 'fake news' hub on various topics. The article cites a climate scientist from Johns Hopkins University - Patrick T. Brown - in which he claims having to censor his findings on the causes of wildfires to publish in a leading academic journal. The People's Voice highlights Brown's credentials to lend the claim legitimacy.

Brown has also published in another contentious outlet - *The Free Press* - where he denounced alleged biases in climate-related academia. These claims sit counter to a vast (and growing) body of peer-reviewed papers on wildfires and their origins, while Brown's arguments have been directly addressed in a piece by *Christian Science Monitor*. Previous research has shown the importance of 'climate-sceptic scientists' on social media, even when their alleged credentials have no links to climate or environmental fields.



Fig. 36: Screenshot from article by Patrick T. Brown in The People's Voice

Disputed Causes of Wildfires

Several high-traction accounts shared The People’s Voice article. This included a conspiratorial account named *illuminatibot* (sic) (2m followers) and Jim Ferguson (243.9k followers), a self-described entrepreneur fighting ‘globalists’ and founder of the ‘free speech’ online platform Free Train International.



Figs. 37 and 38: Examples of high traction posts on X quoting the article from The People’s Voice.

Posts in this theme frequently argued that **wildfires are caused by poor forest management and not exacerbated by climate change**, despite [repeated](#) and [large-scale studies](#) mapping environmental drivers. Some content contained overtly denialist claims and deemed any links drawn as a form of ‘hysteria’. Several examples were produced by a self-described ‘meteorology student’ – Chris Martz (95.8k followers) – who has [criticised and mocked](#) climate activists and posted messages denouncing climate scientists and alleged ‘[climate alarmism](#)’.

Within this cluster, **the role of arson in causing wildfires was emphasized to the exclusion of natural factors (i.e., lightning) or the exacerbating role of climate change**. One YouTube video relating to Canada’s Park Fire received over 33k views. It was posted on the channel Viva Frei (662k followers) which has produced a range of conspiratorial content on topics such as vaccines. The [far-right website](#) Gateway Pundit published an article highlighting that Louisiana’s Tiger Island fire was caused by arson, something that reputable outlets [also reported](#). The article was shared by Tom Fitton on X (2.8m followers), a conservative influencer who has a [history](#) of attacking climate policies and whose content [often cites](#) the hashtag ‘#ClimateScam’. While the latter example is factually correct, it should be considered within an account’s wider outputs and sharing of anti-climate content. In that context, the story serves to promote a broader narrative that wildfires are primarily due to arson, and are not made worse by global warming. **Isolated incidents are weaponised to create a false impression about the main drivers of extreme weather, as part of a sustained strategy to discredit climate science and action.**

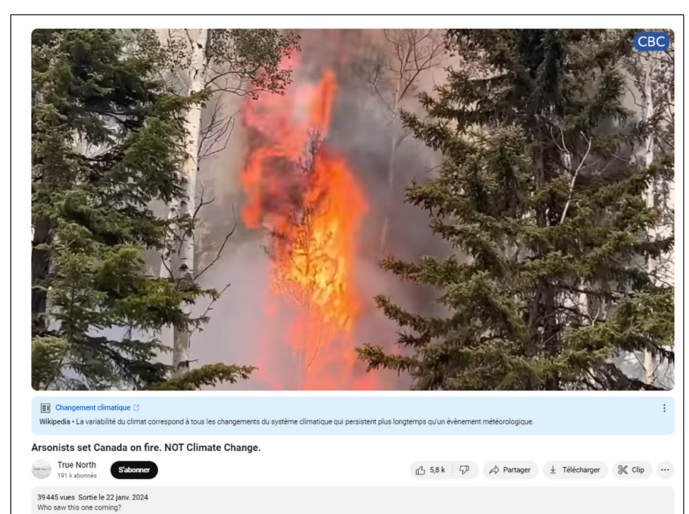
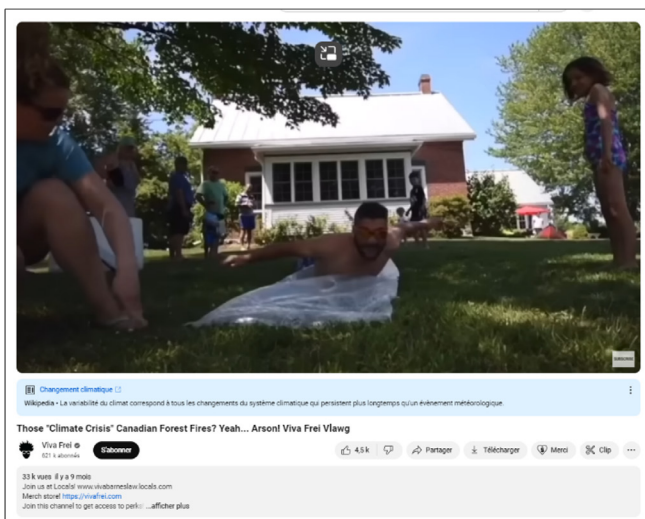
Extreme Weather, Extreme Content: How Big Tech Enables Climate Disinformation



Fig. 39: Example post from Chris Martz (95.8k followers) on X, denying the links between extreme weather events and climate change.



Figs. 40 and 41: Examples of high traction posts that wildfires in North America are caused by arson.



Figs. 42 and 43: High traction videos making arson claims in relation to Canadian wildfires on the True North and Viva Frei channels (192k and 632k subscribers respectively). The top video received 39k views, 5.8k likes and over 1k comments; the bottom video received 33k views and 4.5k likes. Notably, both videos had an information box added by the platform directing users to a UN primer on climate change.

Conspiracy Theories

Other accounts turned to anti-elite conspiracy theories, claiming fires have been orchestrated for nefarious purposes. One post by a pro-Trump account on X (132.6k followers) alleged that Joe Biden’s entourage started wildfires in Texas with the help of a laser beam, receiving 4.1m views, 10k likes and over 5k retweets. Popular videos on YouTube spread similar outlandish claims - one example with over 110k views was posted by Billy Carson on his conspiracy-focused channel ‘4BiddenKnowledge’ (1.1m subscribers) and claimed the increase in global wildfires is linked to direct energy weapons.

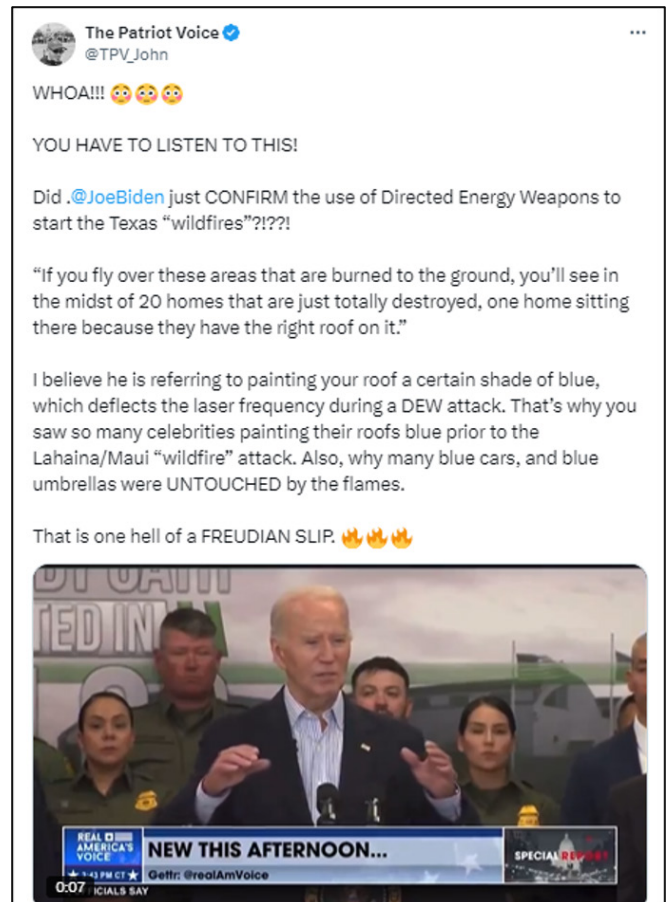
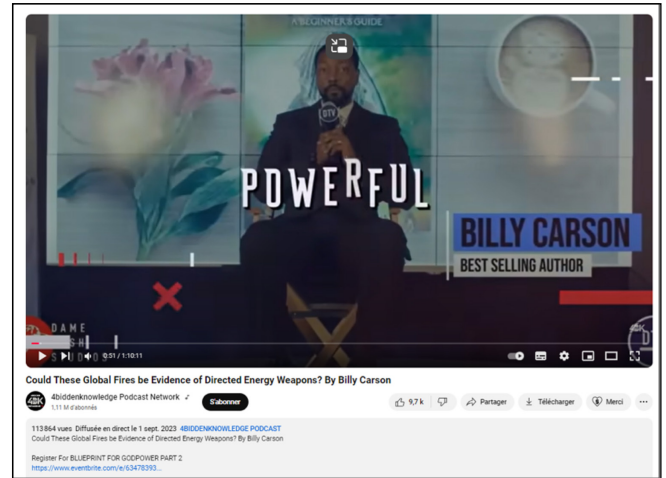
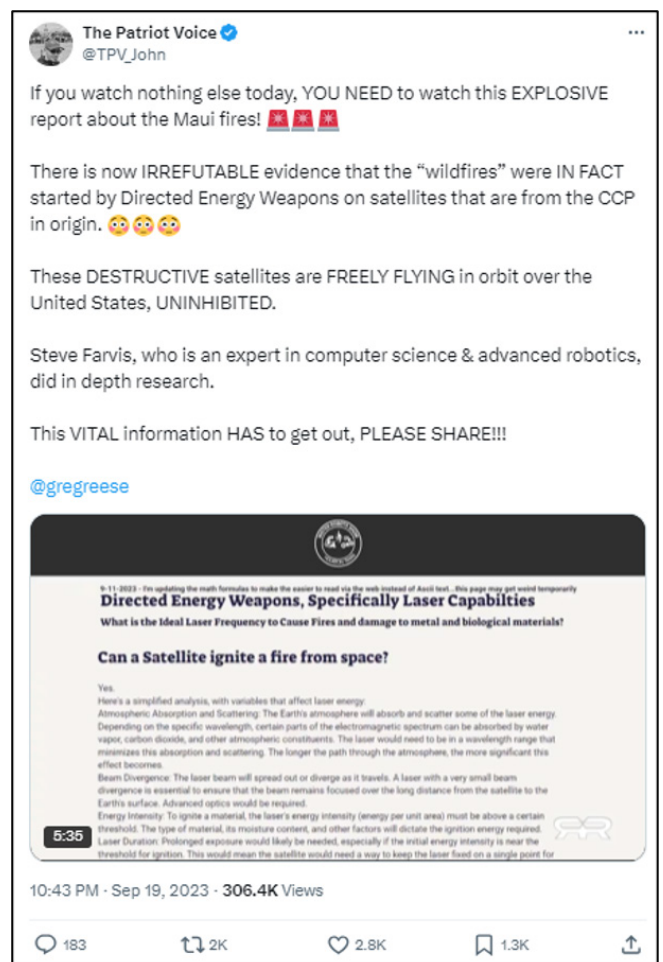
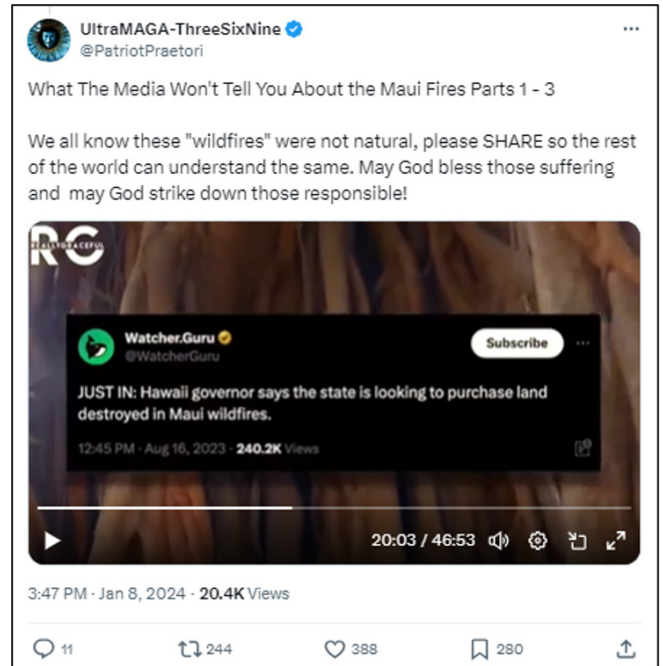


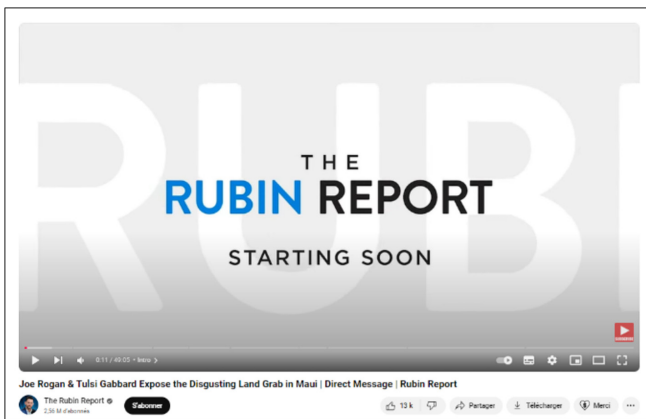
Fig. 44: Indicative posts claiming that elites are using laser beams to spark wildfires. The left-hand post was shared by The Patriot Voice on X (132.6k followers, 4.1m views, 10k likes); the above was screenshot from a video by 4BiddenKnowledge on YouTube (1.1m subscribers, 113k views, 9.7k likes).

Conspiracy theories surrounding the Maui wildfires, which destroyed districts and communities in August 2023, were particularly prominent. High traction posts on X accused the World Economic Forum (WEF), CIA and US government of orchestrating the event as part of a so-called 'land grab' – a claim which [resurfaced](#) around Hurricanes Helene/Milton in October 2024. Various accounts posted conspiratorial videos and screenshots of unknown origin, all claiming to 'prove' that shadowy actors had planned the Maui blaze. On X, The Patriot Voice once again pointed the blame at laser beams; another self-described MAGA account shared a video with various allegations, including that mainstream media and elites had conspired to 'cover up' the true origins and that [hundreds of children had disappeared](#).

Popular videos on YouTube garnering tens of thousands of views claimed that victims of the wildfires were paid to hide the truth. In tandem, channels of influential commentators amplified claims of a land grab. This includes a video featuring podcaster Joe Rogan and co-chair of president-elect Trump's transition team Tulsi Gabbard on a talk show hosted by conservative pundit Dave Rubin.



Figs. 45 and 46: Examples of conspiratorial posts about Maui wildfires from The Patriot Voice (132.6k followers) and UltraMAGA-ThreeSixNine (15.7k followers) on X



Figs 47 and 48: YouTube videos claiming that residents in Maui were silenced following the wildfire, posted by the channels Ron Yates (621k subscribers, 12k views, 1.2k likes) and The Rubin Report (2.6m subscribers, 225k views, 13k likes)

Some accounts spread similar claims while targeting public figures. Conspiracy theories involving Oprah Winfrey and Dwayne Johnson, who set up a relief fund for victims of the wildfires, were notable in the dataset. The account Shadow of Ezra (544.8k followers) – which has spread a range of conspiracy theories including about [alleged electoral fraud](#) in the 2024 US elections – claimed that the CIA was involved in the wildfires to serve ‘Oprah’s land grab’. A similar US-based account (615.1k followers) highlighted Winfrey’s endorsement of Kamala Harris and a campaign donation as evidence of her supposed malign intentions.



Figs. 49 and 50: Examples of conspiracy theories related to Maui and Oprah Winfrey, from Shadow of Ezra (544.8k followers) and I Meme Therefore I Am (615.1k followers) on X. Both posts were produced months after the wildfires, highlighting the repetition of these narratives and their ability to generate engagement long-term

Similar claims were found on widely-followed YouTube channels, often led by conservative commentators in the US – including one video from former Breitbart [opinion writer Benny Johnson](#), which received over 500k views. Johnson is affiliated with [TurningPoint USA](#), which “advocates for conservative politics on high school, college, and university campuses”, and is a key contributor to right-wing outlet Tenet Media. In an investigation made public in September 2024, the [US Department of Justice](#) found that Tenet was funded by Russian operatives as part of a [large-scale influence operation](#). A subsequent [CAAD study revealed](#) that climate misinformation from Tenet Media’s accounts and associated creators had garnered over 23.5m views and 1m engagements from September 2023 to September 2024.

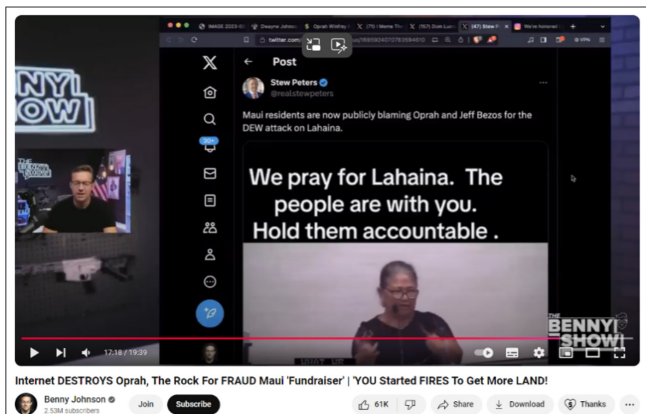


Fig. 51: Video by Benny Johnson (2.53m subscribers) amplifying claims that Oprah Winfrey orchestrated fires as part of a ‘land grab’. It received over 540k views and 61k likes. The video features dozens of TikTok clips in which individuals make conspiratorial or unfounded claims – this includes that Winfrey paid anonymously into the People of Maui’s fund, encouraging ordinary people to donate so she could take the money for herself. Johnson frames these claims with approving commentary, stating that people are ‘waking up’. Other content featured includes a post on X accusing Winfrey and Jeff Bezos of using Directed Energy Weapons (DEW) in Hawaii to start the fires.

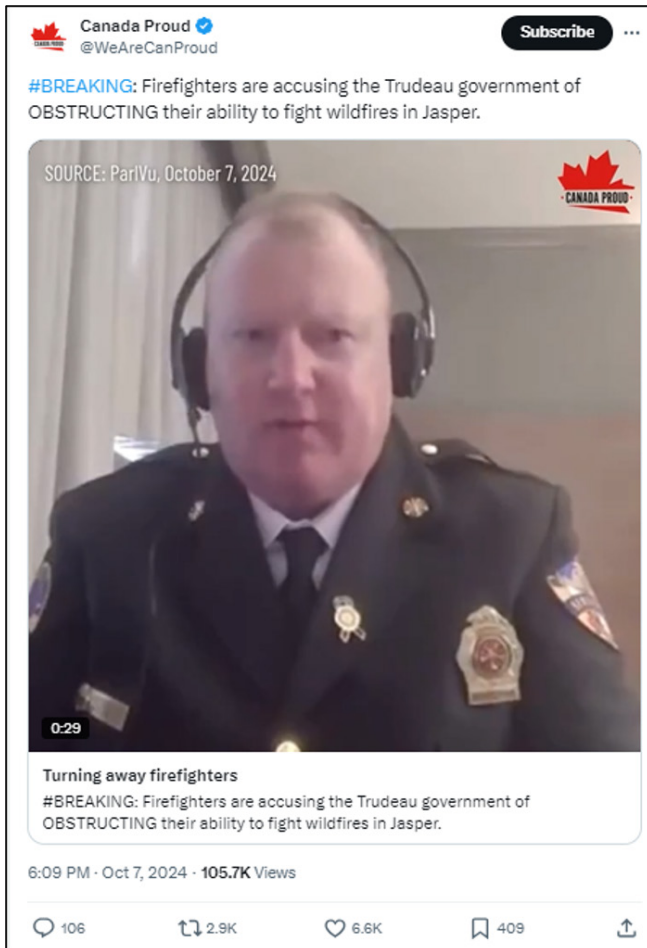
Backlash against Climate Policies

CAAD also identified conspiratorial claims and mobilisation related to specific climate policies, notably the Canadian government’s plans for a carbon tax (a [federal levy](#) to fund decarbonisation efforts). Popular posts argued that wildfires across Canada, particularly Alberta, were proof that levied funds were not being used for their stated purpose and called on the government to cancel the tax entirely.



Figs. 52 and 53: Indicative posts blaming wildfires primarily on arson or lack of government preparation and calling for an end to Canada’s carbon tax. The posts were shared by Mike Campbell (5.5k followers, 130k views, 3.5k likes) and sonofabench (23.2k followers, 70k views, 3.4k likes)

Accounts also spread unsubstantiated claims that the Minister of Environment and Climate Change, Steven Guilbeault, obstructed fire management efforts. The account Canada Proud (242.7k followers) published several posts to this effect.



Figs. 54 and 55: Examples of posts on X claiming that the Canadian government obstructed fire management efforts and threatened to arrest firefighters.

Finally, some posts used 'culture wars' narratives and allegations of government overreach to criticise climate policy. A post by psychologist and influencer [Jordan B. Peterson](#) responded to a message by Guilbeault arguing for the need for greater climate action – in it, Peterson (5.6m followers) overemphasized the role of arson and suggested that the Canadian government is using such events to enact social control.



Fig. 56: Tweet by Jordan B. Peterson (5.6m followers) suggesting that the Canadian government is using wildfires as a pretext to restrict freedoms.

Addendum: Hurricane Misinformation on TikTok

In October 2024, two major hurricanes – Helene and Milton – made landfall in the USA and left devastation in their wake across multiple States. In tandem, [social media](#) became [overrun](#) with [dangerous mis- and disinformation](#) with many of the narratives consistent, if not identical, to those identified in CAAD’s wildfire research above. The following analysis, produced by Media Matters for America (MMFA), examines trends specifically on TikTok in response to these climate events.

Federal Emergency Management Agency (FEMA) and Threats on the Ground

Conspiracy theories spread quickly across TikTok in the aftermath of Hurricane Helene. **One popular narrative [falsely claimed](#) the storm was not a natural occurrence, but rather engineered with the goal of devastating North Carolina and clearing land for a lithium mining operation.** *“Can I say what I find suspicious as s**t?”* said one user, in a video with over [1.8 million views](#), *“That one of the areas affected by Hurricane Helene is the world’s largest lithium deposit and the DoD just entered into an agreement with this company right here to mine lithium for electric cars starting in 2025. Now that area is completely devastated.”*

Another video with over [119k views](#) stated that the hurricane was a *“weather modified storm to displace the residents of western N. Carolina so a land grab can take place.”* One user explicitly encouraged viewers to research the conspiracy theory, saying, *“Just look up flooding and lithium and discover the rabbit hole you go down”*, garnering more than [205k views](#) in a few days.

Federal Emergency Management Agency (FEMA) and Threats on the Ground

Following devastation in North Carolina and Tennessee, users took to TikTok to share their personal experiences. Videos claiming that the death count was [much higher](#) than official reports, along with victims [begging](#) for help, garnered millions of views across the platform. While it is [common to see misinformation thrive during a crisis](#), especially as events unfold in real time, **the volume of content directly targeting FEMA was stark.** Users claimed the agency was [withholding aid](#) from affected communities, forcibly ejecting volunteers (video since removed) and confiscating supplies in Appalachia. [False claims](#) also suggested FEMA had been “obstructing” or confiscating supplies and closing roads and bridges, preventing residents from leaving affected areas. These baseless allegations became so widespread and disruptive that the [White House](#), [FEMA](#), [state](#) and [local](#) officials, and media outlets were all forced to issue fact-checks, in part to prevent [threats of violence](#) from escalating and endangering frontline responders.

In response to these viral claims, **TikTok users began glorifying violence against FEMA personnel.** Several videos promoted an [unverified](#) claim that a FEMA agent “got a whooping” from residents for “acting arrogant” and denying aid to North Carolina victims. One [video](#) with [2 million views](#) celebrated this rumour, saying, *“Way to go locals. Stand up for yourself. You guys are doing an amazing job. I mean that’s just the beginning. People need to stand up and put FEMA down.”*

Researchers also identified various videos explicitly inciting violence, including ones sponsored post that claimed FEMA were 'Enemies of the State.' A sponsored post means the user has paid TikTok to boost their content across the platform. The post went on to say that "failure to assist is a capital crime" and that personnel "can be arrested or shot or hung on sight."

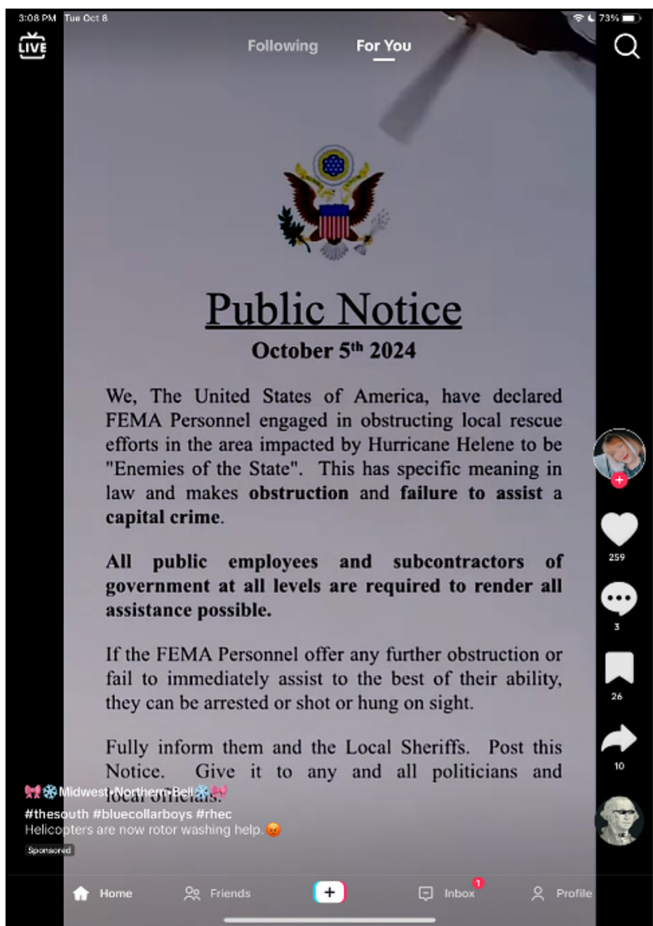


Fig. 57: Sponsored post on TikTok declaring FEMA employees as 'enemies of the State' who should be 'arrested or shot or hung on sight'. The same post text was amplified by accounts across TikTok, X and other fringe platforms.

Another video, which received over 204k views prior to removal by TikTok, threatened FEMA employees directly, saying: "If you're trying to deny people access to help in the affected area, be advised. We're still under the War on Terror emergency declaration, if you violate your constitutional oath to protect and assist, the charge will be TREASON. Punishment can mean being unalived immediately by the citizens you are withholding aid from."

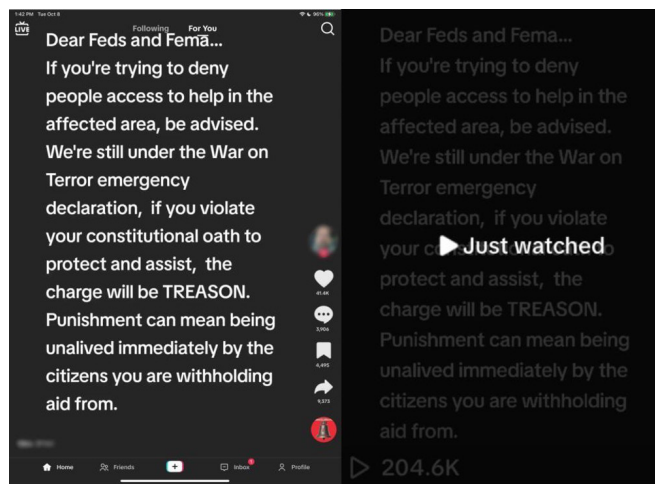


Fig. 58: Post on TikTok directly threatening FEMA employees

These threats forced the agency to take safety precautions while distributing aid, and in at least one case temporarily pause aid altogether.

In Rutherford County, North Carolina, and Carter County, Tennessee, FEMA workers faced threats of violence from armed militias. According to The Washington Post, on October 12 a North Carolina resident was arrested after officials were notified that "a white male had an assault rifle" and had made comments about harming employees. On October 15, a group of disaster relief workers also reported facing down armed individuals.

Calls for Civil War

Rampant misinformation also spurred calls for “civil war” and “revolution.” A video that garnered [82k views](#) before its removal shared the same unverified claim about a FEMA agent being assaulted and alleged the US government was going to “execute martial law and roll out the National Guard to protect FEMA.” The creators of the video suggested “this might be the beginning of that war that everybody’s been thinking about.”

Another [video](#) with [26k views](#) before its removal called for TikTok users to ‘rise up’ and defend the US from its supposed domestic enemies, saying, “If you have ever sworn an oath to the Constitution of the United States of America to defend this country against all enemies foreign and domestic – then it got real f*****g domestic. Stand by awaiting the rally point. I trust we will all do the right thing together.” On a [video](#) that had [54k views](#) and perpetuated false claims about FEMA “confiscating supplies” or [blocking](#) them from affected areas, the top comment read “Civil war is coming.”

Similarly, a popular [video](#) called for people to organise a convoy against these perceived injustices while invoking the “Great Replacement” [conspiracy theory](#), which claims that elites are trying to replace white Americans with non-white immigrants –it garnered over 114k views and 26k likes before being taken down.

Alexa’s Hurricane Milton Prediction

Before Hurricane Milton made landfall on the west coast of Florida, users posted videos of themselves asking their Amazon Alexa (a smart speaker) unanswerable questions about the storm. The device provided inaccurate answers pulled from [fandom.com](#), a user-generated entertainment and gaming platform, sparking conspiracy theories that garnered over a million views on TikTok.

The videos centred around one common question: “Alexa, what kind of hurricane was Hurricane Milton?”, which [received](#) the Alexa [response](#) “From [fandom.com](#): Hurricane Milton

was an extremely powerful Category 5 hurricane that caused widespread damage across its path in October 2024”. This bolstered viral claims that the hurricanes were in fact planned and geoengineered. One user ended his video by asking viewers, “they’ve already predicted the outcome, I wonder why?” and received at least [738k views](#). The top comment claimed that the US government “is using Geo-Engineering/Weather Modification to kill its own people” and racked up over 3.5k likes.



Fig. 59: Top comment on TikTok video with over 738k views, implying Hurricane Milton had been orchestrated in advance

Researchers could not replicate this exact response from Alexa. However, when asked about fatalities from Hurricane Milton, the device did suggest a death toll and monetary damages for a storm which – at the time of analysis – had not yet made landfall. Alexa’s response cited the [Hypothetical Hurricanes Wiki](#), a “comprehensive database of hypothetical tropical cyclone articles that anyone can edit” within [fandom.com](#).

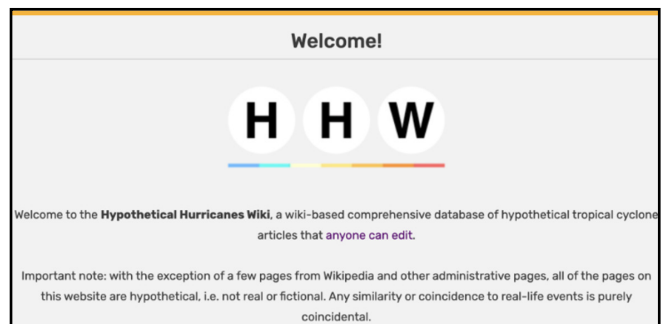


Fig. 60: Website cited by Amazon Alexa device when providing inaccurate information about Hurricane Milton.

Conclusion

Extreme weather events in the last year [provided a catalyst](#) for the spread and mainstreaming of conspiracy theories, as well as wider anti-scientific misinformation. These narratives continually seek to downplay the role of climate change in driving events including wildfires, hurricanes, floods, heatwaves, droughts or other natural disasters.

Malign actors exploit reporting to obscure any links to climate change, blaming everything from arson and lasers to [chemtrails](#) and [cloud-seeding](#). The same actors also weaponise these crises to undermine climate action, highlighting vulnerabilities for policymakers as extreme weather events become more frequent and severe. Meanwhile, **platforms appear continually under-prepared for the surge of misinformation that occurs before, during, and after climate disasters** – in some cases, these baseless claims have become the defining narrative and produced immediate, observable harm. Calls for violence against frontline responders align with a growing playbook of abuse and harassment [directed at scientists, weather reporters, and climate activists](#).

Beyond the immediate threat to individuals, misinformation can have dangerous long-term impacts. Research has shown that extreme weather [plays a significant role in shaping beliefs](#) about the climate crisis – however, **it should not be assumed that direct experience will, by default, make people more supportive of mitigation and adaptation efforts**. Indeed, a [recent report](#) by the Yale Program on Climate Change Communication suggests the opposite can be true. Residents in US coastal areas were shown maps with projected sea-level rise, laying out the direct risk to their homes and communities; perversely, this appeared to reduce concern, even among households forecast to experience severe flooding in the coming decades. As we [saw in the wake of COVID-19](#), fear and trauma are often disempowering emotions and [create fertile territory for conspiracies to thrive](#). **Faced with the dire impacts of climate change and the extent of system change needed in response, mis- and disinformation may offer a neater and more comforting version of reality.**

Case Study 3: Fossil fuel advertising on Meta

As outlined in previous [CAAD reports](#), **fossil fuel companies and their lobby groups, trade associations and related entities spend heavily on advertising throughout the year.** These entities could be advertising for various reasons, including to [influence the public](#), [avoid regulation](#), or ultimately [delay the transition to clean energy](#).

Greenwashing is best summarised as [“talk clean, act dirty”](#). The purpose is to **provide fossil fuel producers with a “social licence” to operate, while touting marginal or experimental green projects** to the public. Greenwashing is now consistently prominent from companies, as CAAD documented [daily during COP28](#).

There is a [continued \(and conscious\) disconnect](#) between the activities presented by companies in marketing and PR, versus their actual business practices or investment plans extending as far as 2050. [Scorecard](#) after [scorecard](#) has shown that these corporate actors are not on track for Paris-aligned targets. A [special report](#) by the International Energy Agency in November 2023 also found that just 1% of global clean energy investment came from the oil and gas industry.

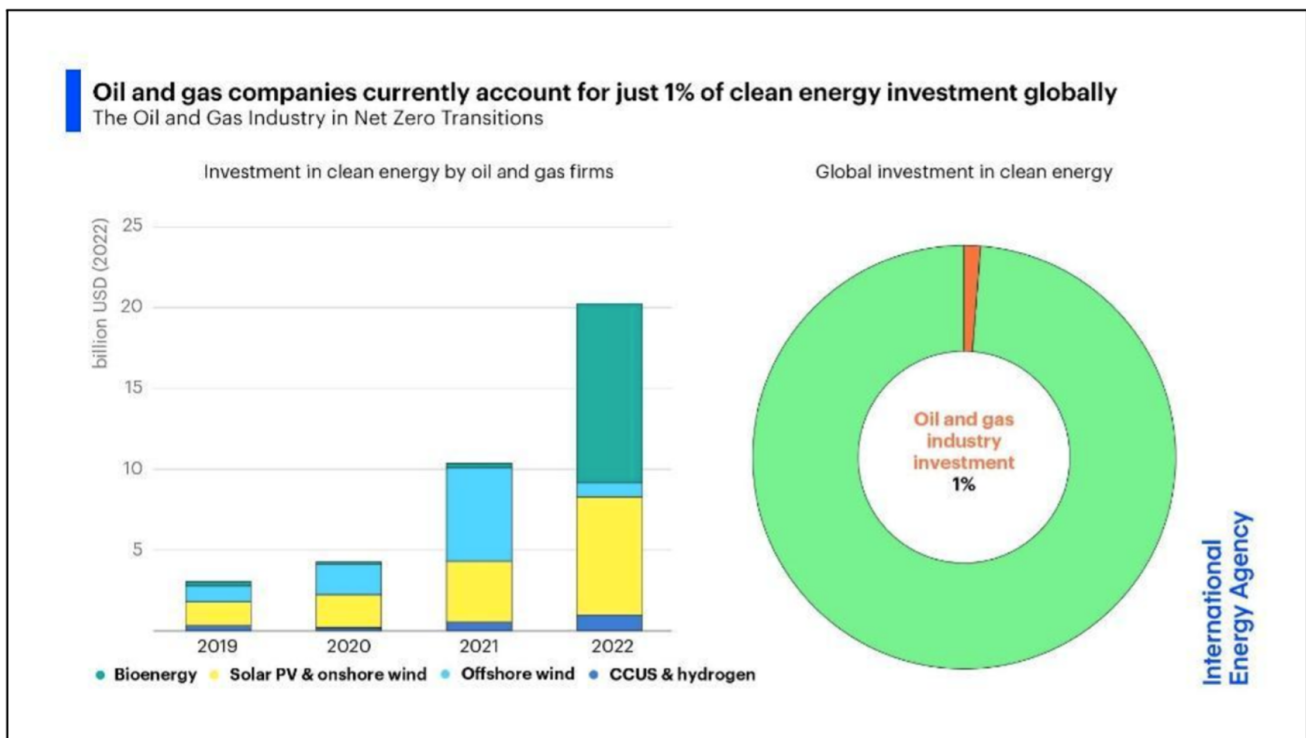


Fig. 61: Graph from IEA special report published in November 2023

Some specific techniques of greenwashing are summarised in the image below from [an overview of 150 academic and other independent studies by Stop Funding Heat](#):

| CASHING IN ON CLIMATE DELAY: BIG TECH'S ROLE IN GREENWASHING THE FOSSIL FUEL INDUSTRY | | | |
|---|------------------------------------|--|--|
| CHAPTER 3 - GREENWASHING - THE CONTINUATION OF CLIMATE DELAY | | | |
| | GREENWASHING CLAIM | DESCRIPTION | FOSSIL FUEL INDUSTRY EXAMPLE |
| PRODUCT LEVEL | No proof | Claim cannot be substantiated by a reliable third party. | "We are investing more than ever into renewable energy" alongside little to no transparency into company investments. |
| | Hidden Trade off | Focusing on a narrow set of attributes without attention to other important environmental issues. | "By extracting oil from the North Sea, transport emissions for our products are very low" While this is true, it avoids the emissions for extraction, and that other local energies are cleaner. |
| | Vagueness | Poorly defined environmental attributes e.g. "non-toxic". | The "natural" in "natural gas" does not really mean anything and can trick consumers into thinking the product is relatively sustainable. |
| | False Labels | Presenting a label that has no meaning or basis in action e.g. "fights global warming". | Corporate front groups have often provided positive sounding labels for fossil fuel companies to boast being a part of, such as membership of the "Global Climate Coalition". |
| | Irrelevance | A true statement that is unimportant to environmental consideration. | The automotive industry will often promote rising numbers of electric vehicle models despite slower growth in sales. |
| | Lesser of Two Evils | A true comparison that risks distracting from the overall picture of environmental impact e.g. "organic cigarettes". | A common comparison is the lower oil and gas emissions to coal. Oil and gas emissions are still very high compared to other forms of energy. |
| | Fibbing | A false statement about a product or firm. | Volkswagen fitted hundreds of diesel models with technology that could cheat emissions tests so they could lie about the sustainability of the product. |
| IDEA LEVEL | False Hopes | Using the possibility of environmentalism in the future as a way to claim environmentalism now. | Many airlines imply sustainable aviation fuels can solve industry problems when they are in reality a highly unproven technology, and not being invested into sufficiently. |
| | Fearmongering | Fabricating insecurity in order to exaggerate the negative impact of not taking environmentally negative actions. | Using the insecure feeling of the war in Ukraine as a reason to double down on fossil fuels, despite the costs of such energy soaring. |
| | Broken Promises | Exploiting the hopes and trust of people without follow up. | "Fracking will lift up poor, rural communities" is a term regularly used to obtain social license to operate, but when this does not occur, companies do not correct the record. |
| | Injustice & Hazardous Consequences | Covering up the winners and losers from environmentally damaging activity. | Oil and gas companies are not very public about local environmental effects like water contamination, air pollution or accidents that occur as a result of fossil fuel extraction, nor the comparably high profits made from the activity. |
| | Profits Over People | Appearing to put people first in communications while in fact prioritising the bottom line. | An automotive firm stating "the planet and its citizens are our number one priority" would be greenwashing if internal company records show a lack of this. |
| FIRM LEVEL | We're In This Together | Putting the onus on individuals or communities as a collective to solve environmental situations directly controlled by companies. | The concept of measuring and managing individual carbon footprint was allegedly created by BP. |
| | Dirty Business | Participating in an inherently dirty business but promoting sustainable practices nonetheless. | Given the latest climate science, any fossil fuel company opening new oil and gas fields while presenting themselves as sustainable is arguably greenwashing. |
| | Ad Bluster | Diverting attention from sustainability issues through use of advertising. | Spending hundreds of thousands on an advertising campaign during Earth Day while not changing capital investments. |
| | Political Spin | Influencing regulations in a public forum. | Fossil fuel companies in the USA often use advertising to encourage citizens to vote against local legislation. Usually adverts will exaggerate prospective loss of employment or tax revenue resulting from such regulation. |
| | It's The Law, Stupid! | Taking credit for actions that are legally required. | Oil and gas firms may take credit for eliminating gas flaring despite this being a legal requirement in many places. |
| | Fuzzy Reporting | Taking advantage of one-way communication channels like a sustainability report to project a positive image. | Shell's "Sky Scenario" covered in the previous chapter does not critically assess its own operations, making it hard to meaningfully learn from. |
| | Co-opted endorsements | Using the positive environmental or social image of another person or organisation to boost the reputation of your own. | Partnering with a climate- or nature-focused NGO, or paying an eco micro-influencer to take a photo at a branded gas station. |
| | Ineffective voluntary programmes | Giving the impression of self-regulation but not taking any meaningful action. | Selling carbon offsets for consumer flights gives the impression of net zero flying but in reality does not achieve this. |

Fig.62: Greenwashing claims at the 'product, 'idea' and 'firm' level, as summarised by Stop Funding Heat

One prominent technique found in advertising – and throughout this case study – is to misleadingly overemphasize and push solutions like Carbon Capture and Storage (CCS) as a substitute for deep, rapid cuts in emissions and a phase out of fossil fuels. Such options are broadly considered relevant for [industries in which carbon emissions will be hard to abate](#) with current technology for the foreseeable future. However, its deployment by the fossil fuel industry is often used, falsely, to defend continued oil and gas extraction while seeming supportive of climate goals. Such narratives are advanced even though remaining [fossil fuels need to stay in the ground](#) to reach agreed and critical climate targets.

The same industry actors also still use front groups to push more aggressive lobbying and messaging around fossil fuel essentialism. This has [long been](#) a tactic for vested interests, allowing actors to [astroturf](#) (‘the deceptive practice of hiding sponsors of an orchestrated message or organization... to make it appear as though it originates from, and is supported by, unsolicited grassroots participants’) and to influence public opinion at arms’ length, with greater plausible deniability. In the US at least, these front groups [openly advertise on social media](#) to achieve strategic goals; indeed, they are among the most prolific and high-spending advertisers on climate and energy issues.

Methodology

For this case study – and given the [difficulty](#) in obtaining useful data from platforms’ existing [ad libraries](#) – **CAAD analysts sought to understand the ‘tip of the iceberg’ for fossil fuel advertising on Meta alone (i.e. Facebook and Instagram).** Researchers started with a list of entities profiled in past editions of *Deny, Deceive, Delay*, which have historically featured among the top advertisers searchable on Meta’s database. Using a tool

connected to the Meta Advertising Library API, CAAD narrowed entities to those that have run a minimum of \$10,000 disclosed in advertising on Social Issues, Elections or Politics (SIEP) adverts in the past year. This provided a sample set of eight entities.

It should be noted that actual online advertising spend from fossil fuel entities since COP28 will be far higher than the figures below. We are only able to pull spend data specific to SIEP adverts on Meta and have only done so for entities that we were already familiar with, posting content in English; this is likely a fraction of fossil fuel adverts across the platform. The industry also advertises across a range of social media platforms with less transparent ad libraries than Meta, not to mention the [rich world of ad placements](#) on radio, TV and in public spaces, sponsorships of [arts](#), culture and [sport](#), plus paid partnerships and [‘advertorials’ in legacy media](#).

That said, this case study illustrates the amount of money spent in one pocket of the online ecosystem, and the kind of content that some of these entities are paying to advertise.

Fossil Fuel Spending on Meta: A Low Estimate

From October 24 2023 to October 24 2024, just 8 fossil fuel entities paid Meta \$17 million in exchange for around 700 million impressions.

| Advertiser | Minimum Spend (\$) | Maximum Spend (\$) | Impressions |
|--|--------------------|--------------------|--------------------|
| Energy Citizens | 5,957,400 | 7,351,818 | 193,698,000 |
| America's Plastic Makers | 2,789,100 | 3,458,003 | 118,017,000 |
| ExxonMobil | 1,526,600 | 1,984,200 | 44,286,000 |
| BP America | 1,094,500 | 1,357,509 | 84,806,000 |
| Enbridge | 990,000 | 1,273,312 | 103,296,000 |
| Chevron | 880,500 | 1,188,085 | 100,956,000 |
| BP UK | 800,000 | 986,788 | 52,246,000 |
| Natural Allies for a Clean Energy Future | 14,900 | 22,436 | 1,814,936 |
| Total | 14,053,000 | 17,622,151 | 699,119,936 |

Fig. 63: Total tracked spend of fossil fuel entities spending over \$10,000 on the Meta advertising library on Social Issues, Elections or Politics (SIEP) ads from 24 October 2023 – 24 October 2024, obtained via AdWatch. BP UK's figure, provided in GBP, was converted to US dollars using the available exchange rate on the day of analysis.

Of the four fossil fuel companies tracked, BP spent the most across its two entities in the UK and America on Social Issues, Elections or Politics (SIEP) ads, for a total of \$2.34 million. ExxonMobil in the US spent nearly \$2 million. Meanwhile Chevron and Enbridge, also both US entities, spent over \$1 million each. Across all five entities, total impressions totalled around 385.5 million.

However, it was two lobby groups featured in past *Deny, Deceive, Delay* reports that spent the most and received the most views. America's Plastic Makers, the oil industry's [plastic lobby group](#), spent between an estimated \$2,789,100 and \$3,458,003 on advertising. The top spender,

[industry front group](#) Energy Citizens, spent between \$5.9 and \$7.3 million – more than the four fossil fuel companies combined. Between these two groups and Natural Allies for a Clean Energy Future, these non-corporate entities received around 313.5 million impressions.

From 1 January 2024 to 24 October 2024, those eight advertising accounts spent an estimated \$9.5m to nearly \$12 million on Meta ads and generated over half a billion impressions, as shown in the table below.

| Advertiser | Minimum Spend (\$) | Maximum Spend (\$) | Impressions |
|--|--------------------|--------------------|--------------------|
| ExxonMobil | 708,600 | 907,377 | 22,672,000 |
| BP America | 386,500 | 482,615 | 28,529,000 |
| BP UK | 508,230 | 637,752 | 48,639,000 |
| Chevron | 652,100 | 878,467 | 76,690,000 |
| Enbridge | 954,100 | 1,218,756 | 98,835,000 |
| Energy Citizens | 3,958,600 | 4,887,842 | 149,098,000 |
| America's Plastic Makers | 2,362,700 | 2,949,352 | 99,648,000 |
| Natural Allies for a Clean Energy Future | 3,700 | 7,660 | 1,320,960 |
| Total | 9,534,530 | 11,969,821 | 525,431,960 |

Fig. 64: Total tracked spend of fossil fuel entities spending over \$10,000 on the Meta advertising library on Social Issues, Elections and Politics (SIEP) adverts from 1 January 2024 – 24 October 2024, obtained via AdWatch. BP UK’s figure, provided in GBP, was converted to US dollars using the available exchange rate on the day of analysis.

The following section analyses the demographic reach and content of adverts in this timeframe.

Demographic and Content Summary

In terms of estimated user age, the eight advertisers followed one of three broad patterns. ExxonMobil and Energy Citizens’ advertising strategies ended up reaching (i.e. being shown to) older users on average. BP, Chevron, Enbridge and Natural Allies for a Clean Energy Future reached more users in the 25–44 bracket, with Enbridge and Natural Allies both reaching a substantial number of 18–24-year-olds too. Finally, America’s Plastic Makers reached a relatively even spread of ages.

For estimated gender, most accounts reached more men than women in every age category, sometimes more than double. The notable exceptions are America’s Plastic Makers, who reached twice the number of women than men, and Energy Citizens who reached more women specifically in the 65+ category.

As for content, all eight advertising entities spent a high amount of budget on SIEP adverts across three major pillars:

- > Greenwashing, in particular pushing fossil fuel-oriented approaches like carbon capture, hydrogen, and ‘efficiencies’ in existing oil and gas operations.
- > Presenting fossil fuels as an essential and even ‘low carbon’ component of the energy transition, especially to bolster the US or UK economy during difficult moments.
- > Some fossil fuel companies lobbied for changes in policies either at the state or federal level in the US, while industry front groups attacked existing US policy.

Breakdown by Advertiser (in our sample)

Energy Citizens’ impressions increased steadily with age, with nearly 10x the amount of 65+ year olds reached as 18-24s. Gender impressions were roughly balanced across age groups, although for 65+ the account reached over 1 million more women than men. A majority of impressions reached people in Ohio and Pennsylvania, with Colorado in a distant third.

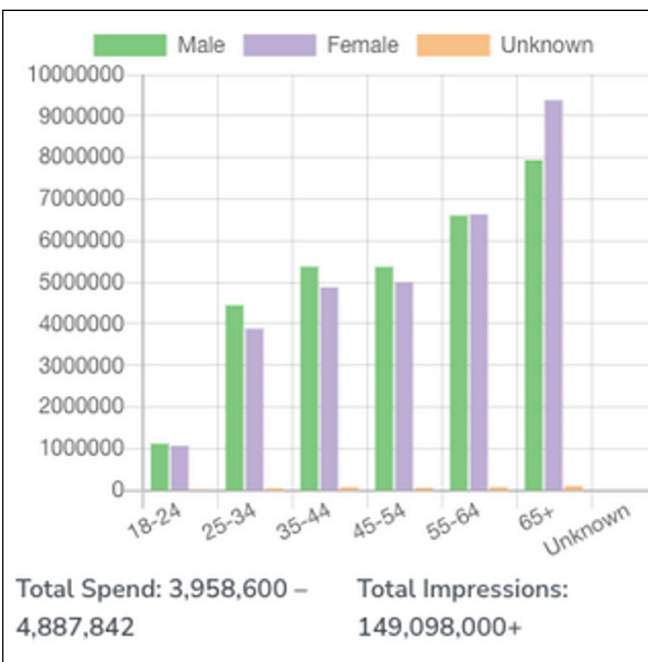
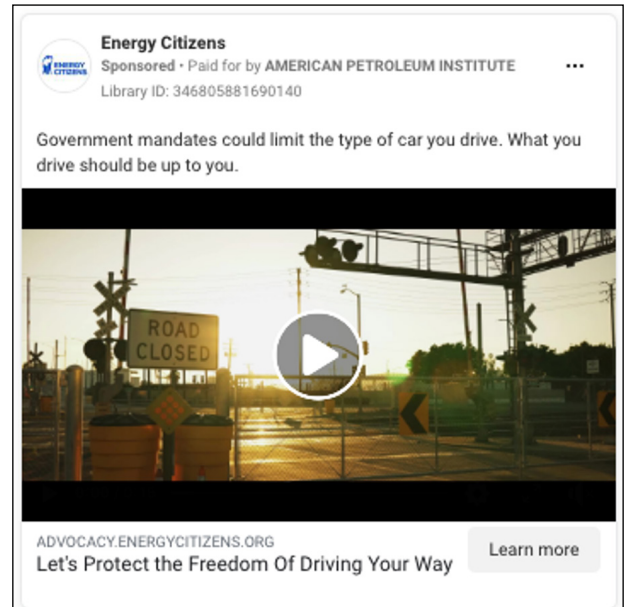


Fig. 65: Energy Citizens’ demographic reach on SIEP adverts on Meta from 1 January 2024 to 24 October 2024, obtained via Ad Watch

Content from Energy Citizens – an industry front group – differed from the fossil fuel companies’ own campaigns, in that Energy Citizens’ adverts were more advocacy based. Their content split into two main categories: one set of ads criticised government policy, and another pushed fossil fuels as an essential source for ‘energy security’ or ‘energy independence’. On security issues, the highest spend advert was one shown multiple times to users in Ohio, containing a video using a NASCAR analogy. The video warns against letting foreign powers supply American energy. Another heavily implied that without fossil fuels America could suffer blackouts.

On policy critique, adverts with high spend made false claims that the US government wants to dictate what car you can drive, calling out a “de facto EV [electric vehicle] mandate”. Adverts specific to Pennsylvania referenced potential taxes on natural gas. Other adverts led with the need to reduce government intervention on environmental or energy policy to reduce inflation.



Figs. 66: Screenshot taken from Meta’s ad library.



Fig. 67: Screenshot taken from Meta’s ad library.

America’s Plastic Makers (APM) is the only account in our analysis that consistently reached more women than men, from around 30% to more than double for the 65+ category. Ads were targeted in the US but well spread across the various states.

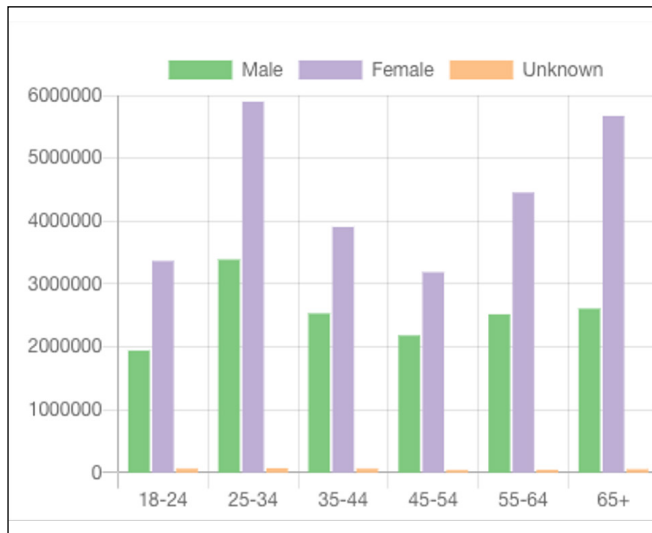


Fig. 68: America's Plastic Maker's demographic reach on SIEP adverts on Meta from 1 January 2024 to 24 October 2024, obtained via Adwatch.

All advertising expenditure for this account went into campaigns presenting APM's 'sustainable plastics' as a means to [lower emissions](#). Adverts covered an array of case studies such as [sustainability in the auto industry](#), appliance energy efficiency and [food pouches](#). Some more generic ads boasted of billions spent by APM into "[new recycling technologies for a more sustainable future](#)".

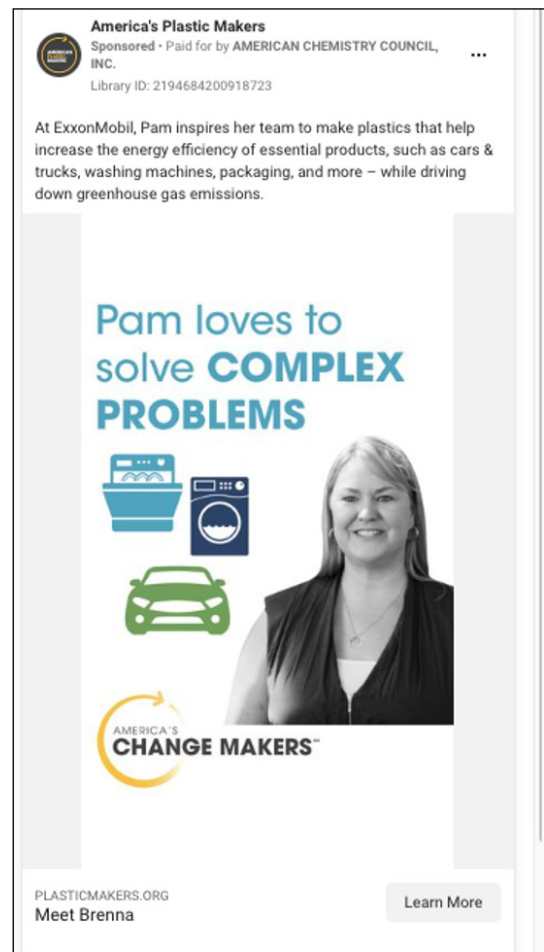


Fig. 69: Screenshot taken from Meta's ad library.



Fig. 70: Screenshot taken from Meta's ad library.

Natural Allies for a Clean Energy Future (NACEF)

reached more men than women in every age group, with the most in the 25-34 age range and fewest in the 65+, suggesting a prioritisation of younger audiences in their advertising strategy. They also reached around twice as many men as women in the 25-34, 35-44 and 45-54 age demographics. All adverts reached the United States, with the majority reaching Washington DC.

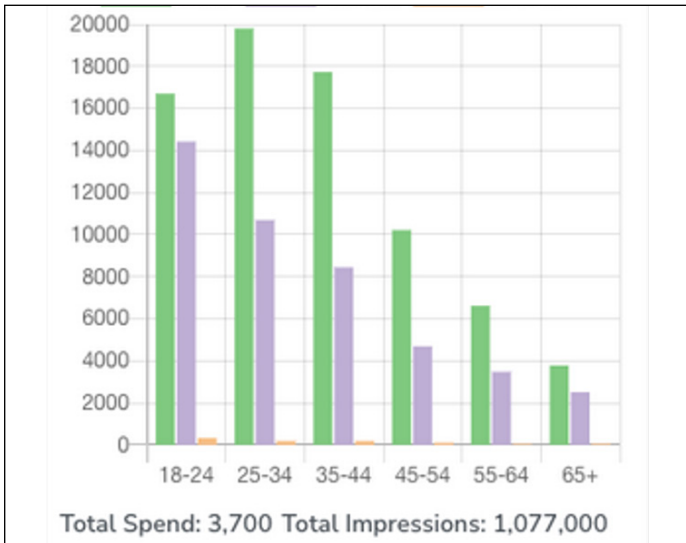


Fig. 71: Natural Allies' demographic reach on SIEP adverts on Meta from 1 January 2024 to 24 October 2024, obtained via The Meta ads API

NACEF's adverts primarily centred the importance of partnering natural gas with renewables. Advert text suggested that this is because renewables are "intermittent" and framed natural gas as equally, if not more, affordable and secure than renewable alternatives. Multiple adverts specifically called out a need for natural gas due to the "power shortage risk" of the "AI revolution".



Fig. 72: Screenshot taken from Meta's ad library

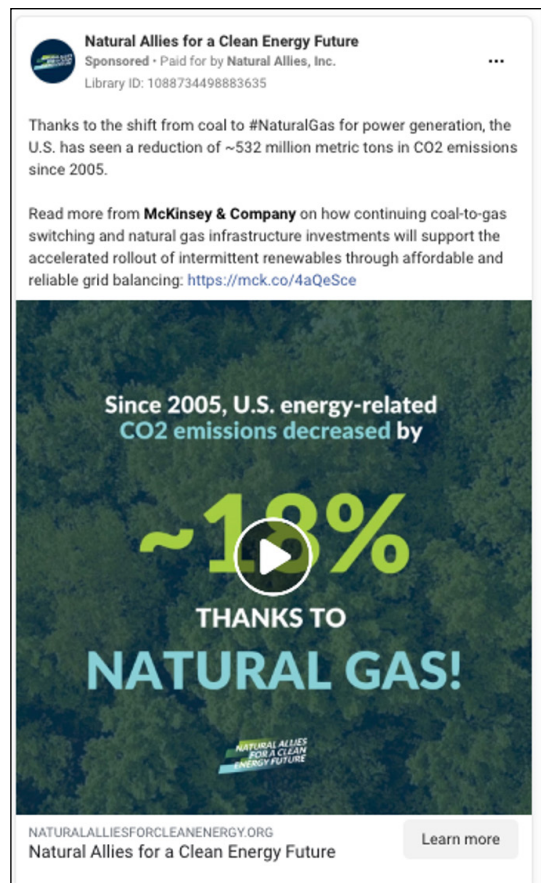


Fig. 73: Screenshot- taken from Meta's ad library

ExxonMobil advertised exclusively in the US, relatively evenly spread across all States. Its most reached age group was 65+, with more impressions for men than women across the board. Impressions for 18–24 were very low, suggesting it was not a priority audience for the organisation like the 65+ range.

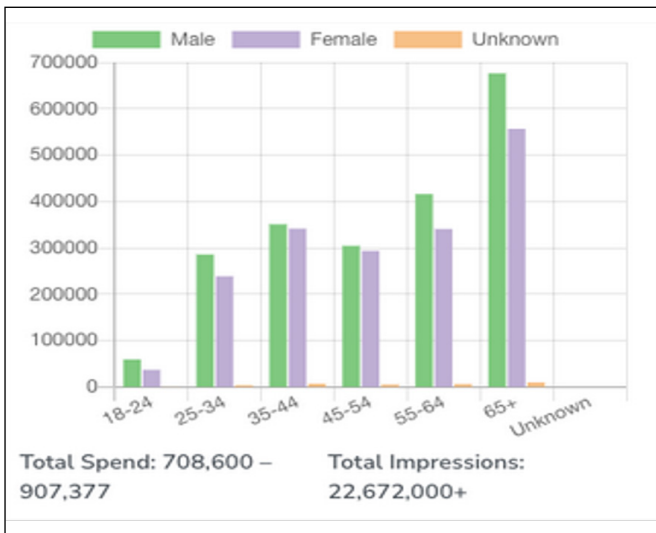


Fig. 74: ExxonMobil's demographic reach on SIEP adverts on Meta from 1 January 2024 to 24 October 2024, obtained via the Meta ads API

The company's general approach was to frame certain technologies as the path to a "lower carbon future". \$150,000 was spent on a straightforward advert about ExxonMobil's role in reducing carbon emissions for heavy industry. Other versions of this ad with smaller spend (up to \$20,000) named carbon capture as the solution. These adverts have been removed from the Meta ad library for not containing an appropriate disclaimer, but according to The Meta ads API the text of the larger advert read "The world needs ways to reduce carbon emissions. We're developing solutions that could work for heavy industry". The text of the smaller ads read "Heavy industry needs to reduce carbon emissions. We're working on solutions – like carbon capture – that could help."

Dozens of other high spend adverts (above \$10,000) present one-question "polls" like "is recycling important to you?" or "do you support low carbon solutions to help address the world's net zero ambition?". Sometimes adverts asked users to sign a pledge. Across other adverts that were reviewed, hydrogen and carbon capture featured frequently as a "proven" solution to a lower emissions future.

Other adverts were state-targeted, like ExxonMobil's claim of an "all of the above" approach for Mississippi, or lobbying to support certain bills in Arkansas and Louisiana. Similar lobbying efforts were found at the federal level.

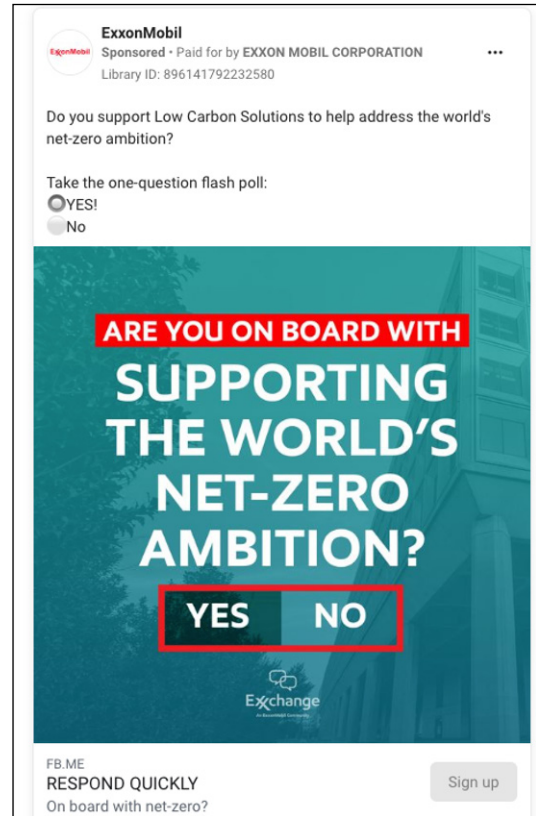


Fig. 75: Screenshot taken from Meta's ad library

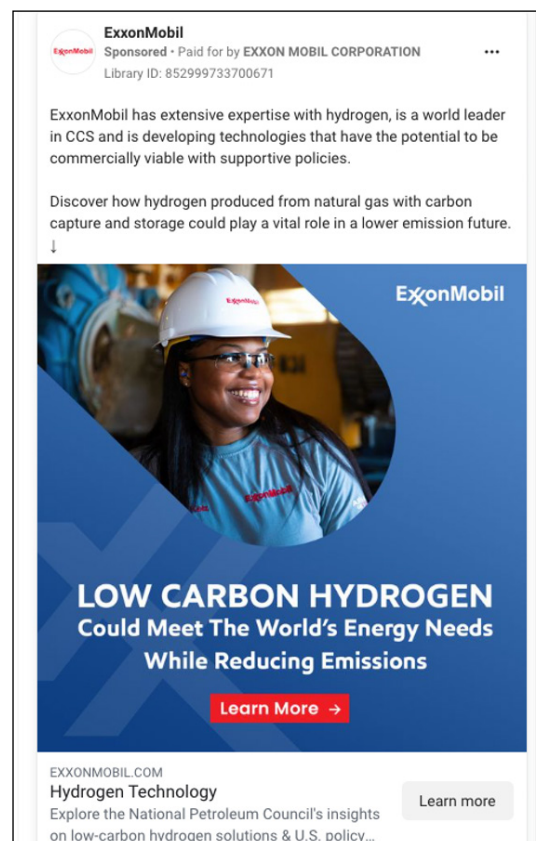


Fig. 76: Screenshot taken from Meta's ad library

BP America reached the 35–44- and 25–34-year-old demographics more than others, as well as more men in almost all demographics. However, BP America hardly reached 18–24 year olds. Their adverts were exclusively shown in the states of Maryland, Virginia, Washington DC, Indiana, Illinois and (to a lesser extent) Texas.

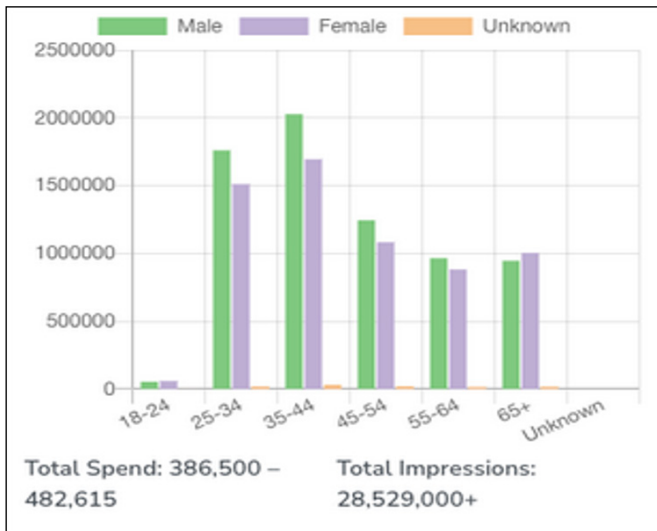


Fig. 77: BP America's demographic reach on SIEP adverts on Meta from 1 January 2024 to 24 October 2024, obtained via The Meta ads API

BP America's largest single ad campaign focused on carbon capture and storage, calling it a "tested and proven technology." A cited analysis of why this claim is misleading can be found in [CAAD's Special Edition briefing from COP28](#). A sizeable portion of BP's overall spend was on adverts using their "and, not or" slogan, implying that there is no need to reduce fossil fuel production to achieve emissions goals. These "and, not or" adverts draw attention to BP's job creation, investments in renewables, production of gas with fewer operational emissions, carbon capture, and [biogas](#) (sometimes referred to as "renewable natural gas").

A significant amount of ad spend also focused on local issues [in Indiana specifically](#). Some more generic ads with lower spends focused on Texas as a "hub of America's energy future", alongside one discussing [Illinois](#).

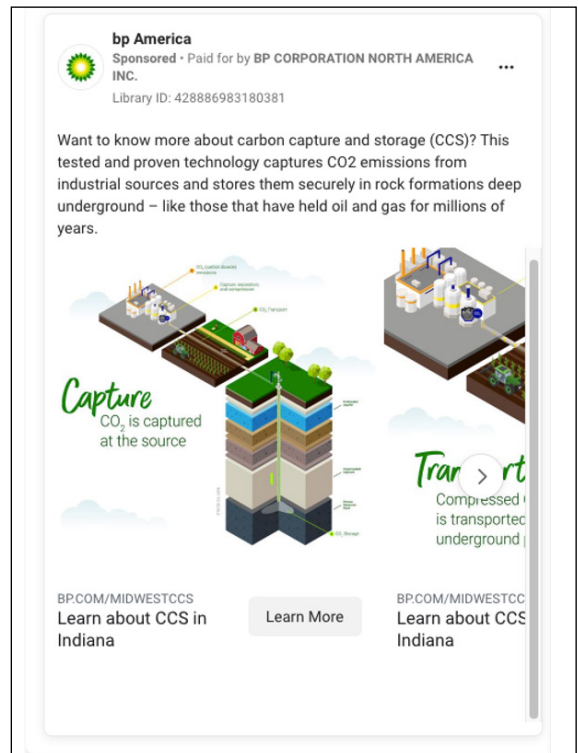


Fig. 78: Screenshot taken from Meta's ad library

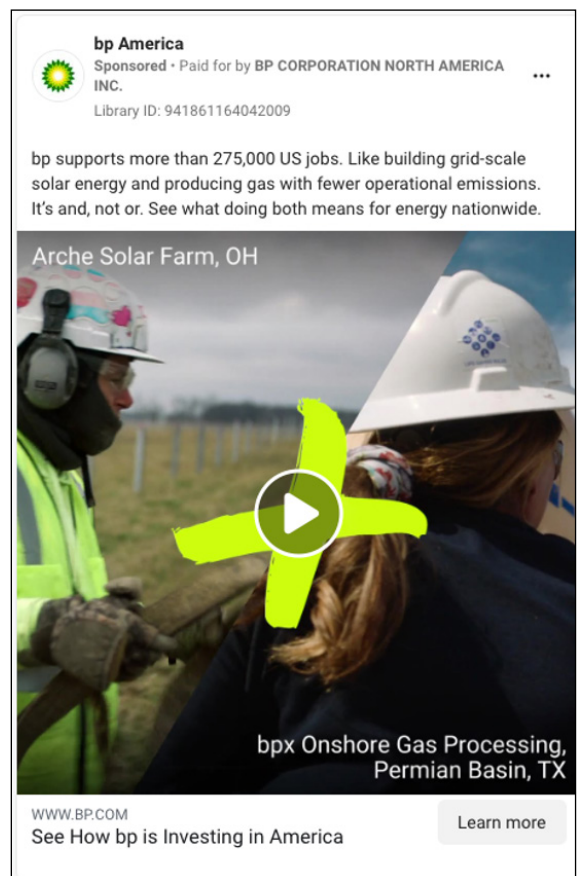


Fig. 79: Screenshots taken from Meta's ad library

BP UK focused spend more heavily on people in 25-44 category than its American counterpart and reached more men overall. They did not appear to target 18-24-year-olds or those over 65 in any adverts reviewed for 2024. Most ads were targeted in England, which achieved 17x impressions compared to Scotland, which in turn garnered at least 10x impressions compared to each of Wales and Northern Ireland.

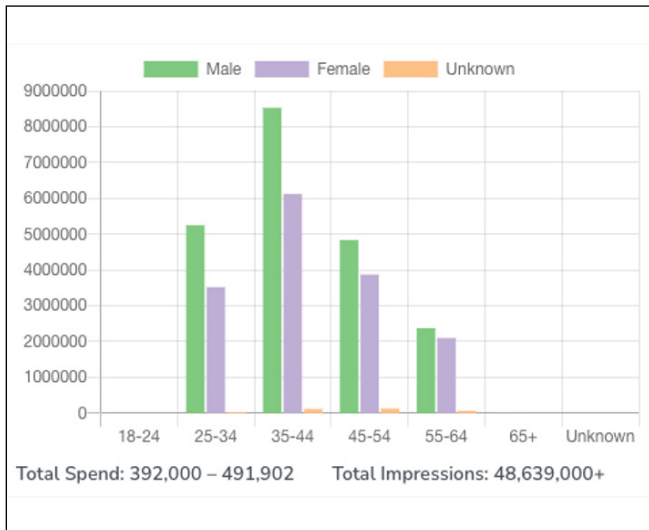


Fig. 80: BP UK's demographic reach on SIEP adverts on Meta from 1 January 2024 to 24 October 2024, obtained via The Meta ads API

Their two largest ad spends focused on the company's contribution to the UK economy with the slogan **Backing Britain**. The rest of BP UK's ads, which make up a majority of the spend, focused on its efforts to lower emissions via a "transition" to "tomorrow's energy system", citing solutions of varying impact like offshore wind, hydrogen and more "efficient" oil and gas operations. "And, not or" once again features as a central slogan in many of these ads.

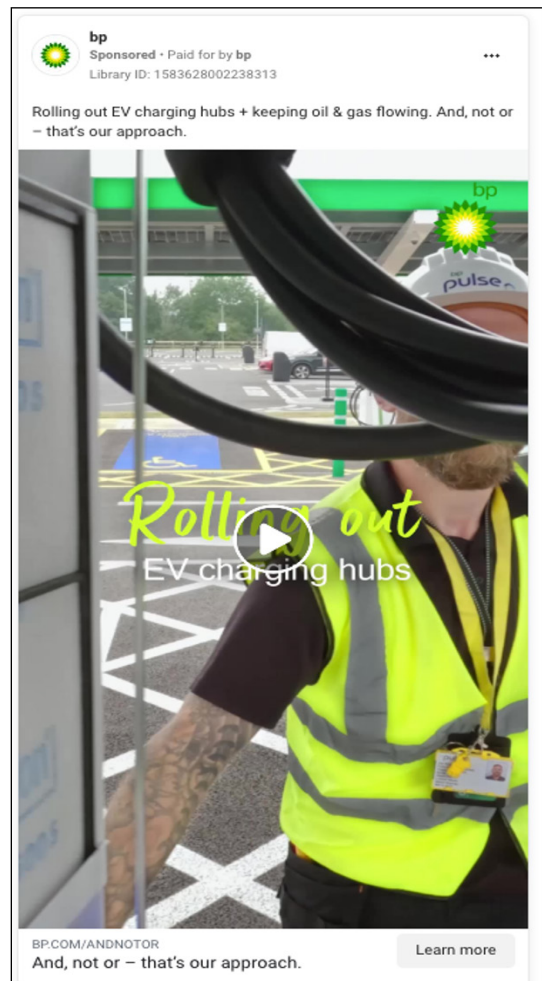


Fig. 81: Screenshot taken from Meta's ad library

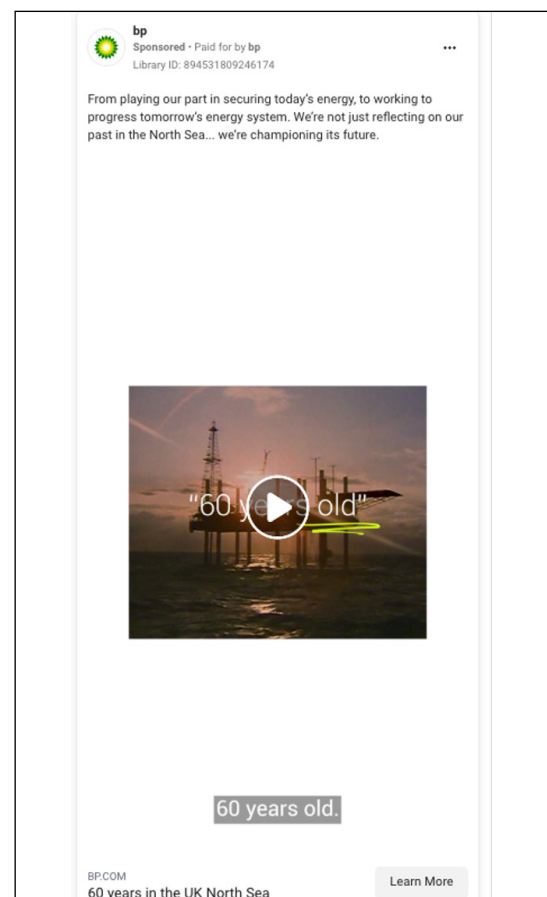


Fig 82: Screenshot taken from Meta's ad library

Chevron appeared to be reaching many more young men than women, with significantly more impressions for men in the 18-24 bracket. All adverts appear targeted at users in the US, in particular the States of Virginia, Colorado and California

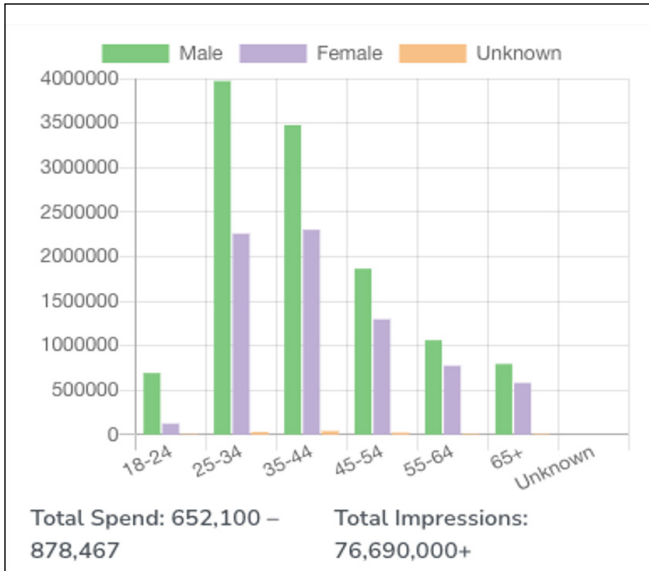


Fig. 83: Chevron's demographic reach on SIEP adverts on Meta, from 1 January 2024 to 24 October 2024, obtained via the Meta ads API

Unlike other fossil fuel companies in this case study, a sizeable portion of advertising dollars were spent on simple ads directing users to sign up to its newsletter – this includes its five largest ads over the period. However, many other adverts – which make up the majority of overall spend – push fossil-oriented approaches or incremental improvements like renewable fuels, operational efficiencies, and electricity partially supplied by renewables to prop up US oil and gas demand with “ever-cleaner” energy.

A sizeable portion of adverts also focused on specific states like Colorado, New Mexico, Texas and Nevada, with a mixture of generic content about supplying oil and (“natural”) gas, and green efficiencies.



Fig. 84: Screenshot taken from Meta's ad library

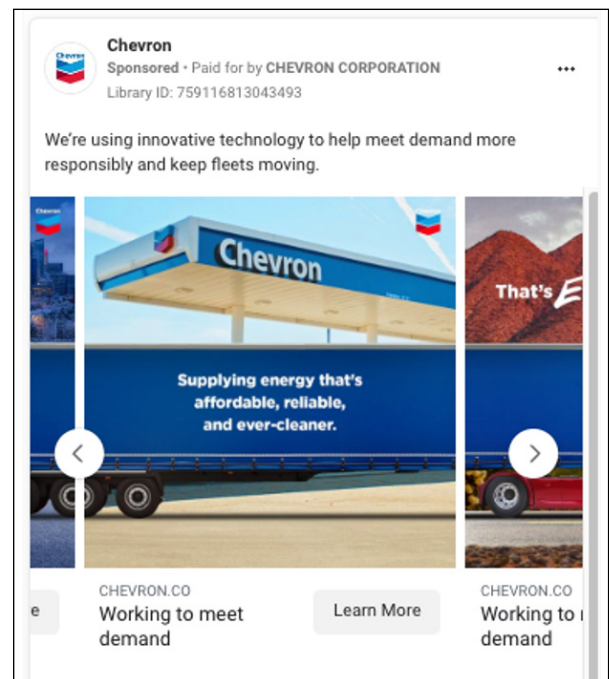


Fig. 85: Screenshot taken from Meta's ad library

Enbridge generated the most impressions in the dataset for any single demographic - 13 million among men aged 25-34 - followed by just over 10 million for men aged 35-44. Enbridge received more impressions from men than women across every age group. The five states in the US with the largest impressions were Michigan, Wisconsin, Virginia, Texas and Washington DC.

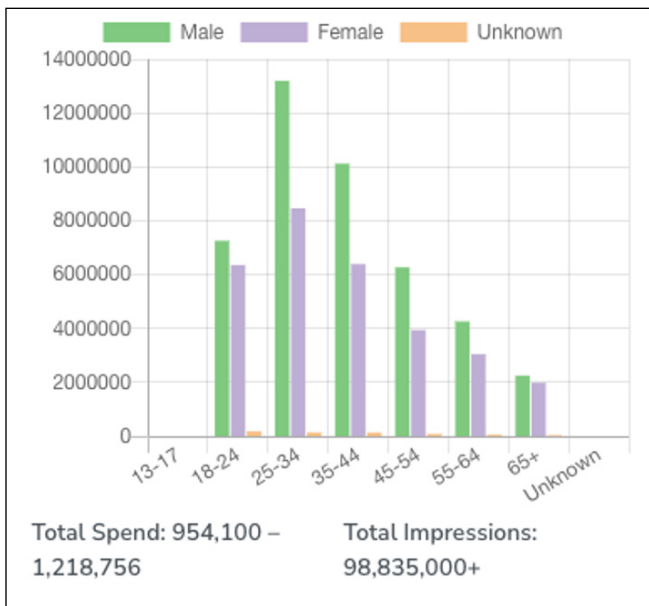


Fig. 86: Enbridge’s demographic reach on SIEP adverts on Meta from 1 January 2024 to 24 October 2024, obtained via the Meta ads API

Enbridge’s [largest single ad](#) (up to \$80,000) and other higher-spend ads used the same text and links to its 2023 Sustainability report, which claims the company will reach net zero by 2050. The ad conflates renewable energy with other “low-carbon solutions” which, on the linked webpage, appears to include carbon offsets and operational emissions. [Other versions](#) of this ad have significant spend too, all using the hashtags #NetZero2050 and #TomorrowsOn. One version of the ad referenced [“blending hydrogen and investing in renewable natural gas”](#). Paraphrased versions of these adverts also appear in [Spanish](#).

Another prominent set of ads discussed the Line 5 relocation project in Wisconsin, invoking [job creation and energy security](#). A handful of lower spend adverts promoted Enbridge’s [5-part podcast on the energy transition](#) and a handful of [conferences](#) that Enbridge supported, while one ad was found promoting a [Michigan project](#).



Fig. 87: Screenshot taken from Meta’s ad library

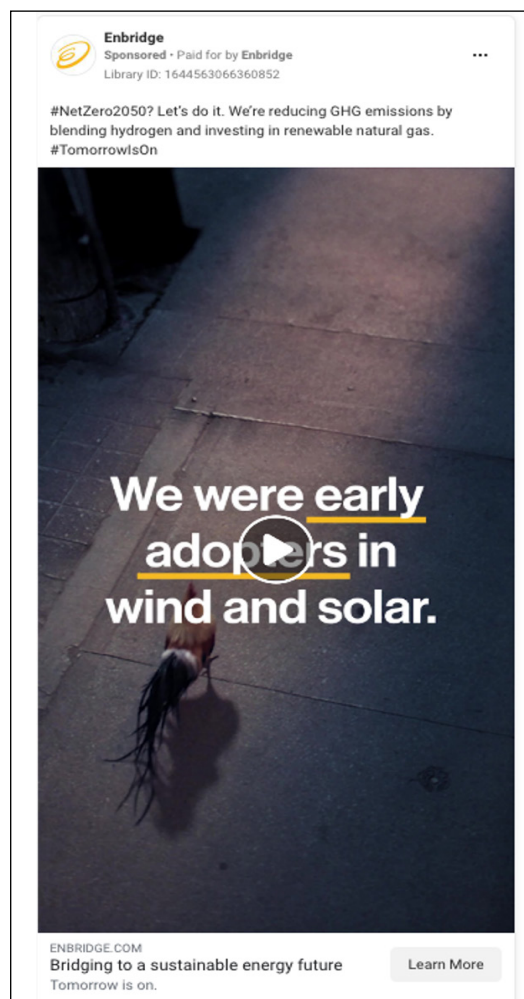


Fig. 88: Screenshot taken from Meta’s ad library

SIEP Ads – Tip of the Iceberg?

Our analysis quantifying spend and impressions is only possible on adverts that Meta classifies as regarding Social Issues, Elections or Politics (SIEP). Unfortunately, this excludes a large range of accounts and adverts from the time period studied. Many non-SIEP ads are likely no longer visible, since they are not routinely maintained on the ad library. Meta does not provide information about which non-SIEP ads are kept and which are not.

At the time of writing, for example, some accounts analysed in this case study are also running non-SIEP ads for undisclosed quantities of money. Meanwhile, other advertising accounts do not show any data in the ads API tool we use as they lack the SIEP classification. **We cannot quantify the scale or targeting of these ads, preventing any ‘headline’ statistics of fossil fuel spend at the platform level.**

For example: dozens of ads are currently running in the United States for BP America which do not show up on the tool we have access to, mostly promoting products like fuel or items for sale in its gas stations. In the United Kingdom, there are currently active Shell adverts, an entity that we have not been able to quantify in any way for this case study. These adverts mostly promote [Shell petrol stations](#), [V-power fuel](#), and [electric vehicle charging points](#)

We have also found multiple ads by Aramco which ought to qualify, even by Meta’s current standards, as SIEP advertising. These adverts emphasise the need to “[balance affordability, sustainability and accessibility](#)” when thinking about the energy transition. One talks about a nebulous category of “[purposeful \[energy\] investment...balancing our current energy needs with a vision for a sustainable future](#)”. Another claims that Aramco is investing “[big time in renewable, hydrogen and carbon capture and storage](#)”.

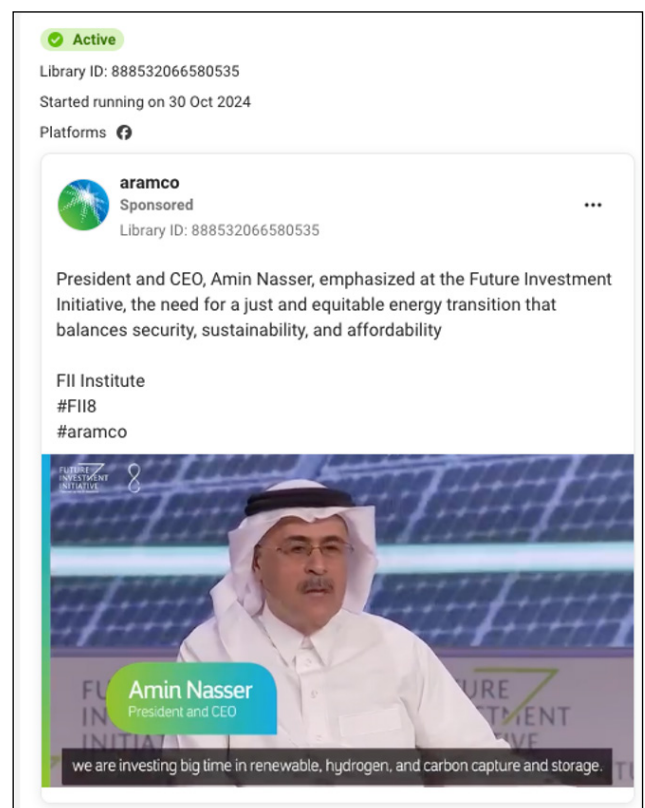


Fig. 89: This Aramco ad, running from 2 November 2024, is one of multiple campaigns we are aware of that do not show in The Meta ads API, and have no accessible demographic targeting, reach or spend data. Screenshot taken from [Meta's Ad Library](#)

Conclusion

Studying a handful of prominent advertisers from the limited data available, we found over \$17.5 million of expenditure on just one social media platform. CAAD analysts classified the majority of these SIEP-labelled adverts as greenwashing, pushing fossil fuel essentialism or outright lobbying around state and federal environmental and energy policies in the US.

Despite frequent statements from the fossil fuel industry on reaching net zero by 2050, [this is not borne out in their disclosed business plans or activity](#). Nonetheless, advertising is being used as a tool to launder the industry's image, likely causing further and critical delays to the energy transition. Such efforts are an evolution of the same playbook used by fossil fuel interests since the 1950s – a key juncture when companies [funded foundational climate science](#) only to launch a [decades-long campaign of public deception and influence](#).

Meta's ad library is far from perfect or complete, but it stands as the current gold standard for social media platforms. The company should endeavour to lead on this front and develop its system for easier use, greater transparency and improved access. Other social media platforms, which are severely lacking by comparison, should follow suit.

Equally, **Meta and its counterparts should, by default, classify all adverts as SIEP if they stem from the fossil fuel industry and its trade associations, lobbies and front groups**, considering the proven relationship between fossil fuels and climate change, and ongoing political lobbying to delay the energy transition. At the very least, this would enable transparent monitoring of the issue by researchers and watchdogs, and provide the evidence base for public debate on advertising standards or oversight. Some argue even this step is insufficient and that, like the tobacco industry, all fossil fuel advertising [ought to be banned outright](#) as a global public health measure – a call to action that UN Secretary General Antonio Guterres actively [championed in June 2024](#) and has already [been introduced at a city level in The Hague](#).

Final Takeaways: This Is Not An Unsolvable Problem

Burning fossil fuels continues to change our climate and to worsen extreme weather events. Despite this, major carbon polluters are advertising their products with impunity on social media, while also weakening the public mandate for action with deceptive, targeted campaigns about their 'green credentials' and viable pathways to Net Zero. Meanwhile, allied political and economic interests spread ever-more outlandish and harmful conspiracies about how and why our climate is changing and what should be done in response. We have seen a growth in violent rhetoric, resulting in significant threats to scientists, emergency response workers, activists, and government personnel – if nothing else, this trend must be the wake-up call to act and mend our information space.

The dire risks to information integrity are not inevitable or impossible to solve. As highlighted by the [UN Global Principles](#), the [Global Digital Compact](#), the [EU's Digital Services Act](#) and a host of other initiatives and legislation, we know which levers exist and how they can make our information ecosystems better. Tackling climate disinformation can and should involve a range of stakeholders, from regulatory bodies to media watchdogs, Big Tech companies to researchers, science communicators to digital influencers.

In all efforts, our focus must be to disrupt the economy of disinformation and build healthier incentives into our information space. That means removing profit motives for both content creators who disinform and the tech platforms who take a cut, as well as exposing the techniques and messaging of bad-faith actors (whether corporate, state-sponsored, political, or individual). Crucially, we cannot fixate on litigating each individual post, but must address systems and the behaviours and actors they reward.

We cannot fix this issue through better storytelling alone, or by pushing more scientific data and fact-checks into the world. Research has continually shown that disinformation wins out, because such content helps drive the attention economy and systems optimised for engagement. Platforms need to curtail the impact of superspreaders and make it harder, more labour intensive and less profitable to 'go viral' by lying about the climate crisis. If we do not address that core, architectural problem, the rest will struggle to achieve real change.

CAAD's Policy Recommendations

Social media platforms that want to reduce the spread of climate disinformation must:

- 1. Acknowledge the threat.** Publicly recognise climate disinformation as a major threat to the information ecosystem, hindering climate action and policy, and posing a growing risk to public health and safety.
- 2. Adopt a clear definition.** Set tiered parameters that recognise different aspects of the problem and the distinct ways to tackle them. This includes false or misleading content that:
 - Undermines public understanding of the existence or impacts of climate change, the unequivocal human influence on climate change, and the need for corresponding urgent action according to the IPCC scientific consensus and in line with the goals of the Paris Climate Agreement;
 - Misrepresents scientific data, including by omission or cherry-picking, to erode trust in climate science, climate-focused institutions, experts, and solutions; or
 - Falsely publicises efforts as supportive of climate goals that in fact contribute to climate warming or contravene the scientific consensus on mitigation and adaptation, including greenwashing content.
- 3. Produce, publicise and resource transparent plans to stop the spread of climate disinformation, to include:**
 - Community content standards, with accompanying monitoring and evaluation indicators;
 - An enforcement mechanism for violation of these standards, including measures like downranking;
 - Clear protocols across all languages in which the company hosts content;
 - An up-to-date, publicly accessible and functional ad library that captures all paid ads, including political and issue-based ads;
 - A clear explanation of any fact-checking processes, including via third-party providers;
 - A user-support system for flagging content that violates community content standards, and a commitment to respond to users in a timely manner;
 - Strong labour standards for content moderation work, including fair pay, clear contracts, and access to mental health support and union representation.
- 4. Report on the prevalence of, and response to, disinformation on their products and services, with a focus on:**
 - Coordinated information operations, including those orchestrated by or affiliated with the fossil fuel lobby;
 - Repeat offender activity from commercial disinformers, media outlets, and other high-traction or 'verified' accounts;
 - State-sponsored influence efforts and interference;
 - The enforcement of content moderation policies, Terms of Service and other community guidelines.

5. **Ensure transparent and open pathways for researchers to access data**, as outlined in the introduction of this report.
6. **Prevent the monetisation of climate disinformation**, ensuring platforms do not profit from hosting or amplifying such content, and weakening the financial incentives for disinformers networks. Mitigation efforts should detail ad tech tools and placements, revenue-sharing schemes with content creators, merchandising, and any other monetised activity on their products and services.
7. **Implement platform-wide 'inoculation' efforts** to increase the resilience of users and help them identify false or misleading content before they encounter it. In tandem, prioritise scientifically credible content and provide reporting on the effectiveness of these measures to regulatory bodies.
8. **Address the impact of emerging technologies such as AI**. This includes producing and enforcing transparency, safety, and accountability measures related to platform use of AI, in particular where it may increase the spread of mis- and disinformation to a mass audience.

ANNEX 1: FURTHER NOTES ON METHODOLOGY

Case Study 1: Opposition to Renewables

During a one-year period (1 September 2023–1 September 2024) researchers identified available posts on X (formerly Twitter) related to attacks on renewables using relevant taxonomies. The data was collected with the tool Brandwatch, using the Boolean searches below. This included several exclusion terms, i.e. keywords added to remove mentions of specific language which yielded too many irrelevant results. This was related primarily to thousands of posts advertising products containing lithium batteries, as well as discussions about the [role](#) of lithium batteries in the [explosion](#) of Hezbollah pagers in Lebanon in September 2024. Researchers also manually excluded all posts from 14 accounts that were solely devoted to advertisements – each had posted close to or above 1,000 times during the observation period.

The Boolean search used was:

```
(((((renewables OR ((renewable OR green OR sustainable) AND (power OR energy OR electricity)) OR intermittency OR "wind and solar" OR "wind solar" OR "wind&solar" OR "wind/solar" OR "wind+solar" OR "solar and wind" OR "solar wind" OR "solar+wind" OR "solar/wind" OR "solar&wind") OR ((green AND (transition OR policy OR policies OR agenda)) OR "net zero" OR "net-zero" OR netzero)) AND (((national OR energy OR undermining) AND security) OR (security AND (threat OR risk)) OR ((dependent OR dominate* OR dominating OR "supply chains") AND (China OR PRC OR Chinese)) OR "made in China" OR "built in China"))
```

OR

```
((renewables OR ((renewable OR green OR sustainable) AND (power OR energy OR electricity)) OR "wind and solar" OR "wind solar" OR "wind&solar" OR "wind/solar" OR "wind+solar" OR "solar and wind" OR "solar wind" OR "solar+wind" OR "solar/wind" OR "solar&wind") AND (cobalt OR lithium OR neodymium OR copper OR polysilicon OR "critical minerals" OR "rare earths" OR (require AND (coal OR steel OR cement)) OR "resource needs" OR "enough metals" OR "enough material" OR "raw materials" OR "run out of materials" OR "rare earth elements"))
```

OR

```
((renewables OR ((renewable OR green OR sustainable) AND (power OR energy OR electricity))) AND ("forced labour" OR "slave labour" OR "child labour" OR xinjiang OR uyghur OR genocide OR "labour camp" OR "labour camps" OR "internment camp" OR "internment camps" OR "concentration camp" OR "concentration camps"))
```

OR

```
((renewables OR ((renewable OR green OR sustainable) AND (power OR energy OR electricity)) OR intermittency) OR ((green AND (transition OR agenda)) OR "net zero" OR "net-zero" OR netzero OR "wind and solar" OR "wind solar" OR "wind&solar" OR "wind/solar" OR "wind+solar" OR "solar and wind" OR "solar wind" OR "solar+wind" OR "solar/wind" OR "solar&wind")) AND (expensive OR subsidised OR subsidies OR ruinous OR ((bills OR price OR prices) AND (increase OR higher OR skyrocket)) OR ((energy OR heat OR electricity OR heating) AND (starvation OR rationing OR poverty OR crisis OR misery)) OR "anti energy" OR "anti-energy" OR ((economic OR economy OR growth) AND (burden OR damage OR crisis)) OR ((burden OR hit OR sacrifices OR misery OR bankrupt* OR impoverish*) AND (workers OR taxpayers OR consumers
```


OR business OR firms OR poor)) OR (risk AND (wealth OR growth OR jobs)) OR (change AND ("life style" OR lifestyle)) OR (destroy* AND civilisation) OR deindustriali?e* OR deindustriali?ing OR "energy dilute" OR "energy dilute"))

OR

((renewables OR ((renewable OR green OR sustainable) AND (power OR energy OR electricity)) OR "electric pylons" OR "wind and solar" OR "wind solar" OR "wind&solar" OR "wind/solar" OR "wind+solar" OR "solar and wind" OR "solar wind" OR "solar+wind" OR "solar/wind" OR "solar&wind") AND ("land use" OR "agricultural land" OR "farm land" OR (seize AND (property OR "private land"))) OR farmland OR deforestation OR "need more land" OR ((environment* OR earth) AND (damage OR harm OR destroy* OR destruction OR harmful OR devastation OR impact OR destructive OR hazardous)) OR "not really green" OR poisonous OR toxic OR landfill OR "land-fill" OR "non recyclable" OR nonrecyclable OR "non-recyclable" OR waste OR sludge OR extractionism OR "big shovel" OR "dark side" OR "horrible reality" OR "horrifying reality" OR "dirty secret" OR biodegradable OR "bio degradable" OR "bio-degradable" OR stripmining OR "strip mining" OR "strip-mining" OR (slags AND leach AND environment)))

OR

((renewables OR ((renewable OR green OR sustainable OR intermittent) AND (power OR energy OR electricity)) OR intermittency OR "wind and solar" OR "wind solar" OR "wind&solar" OR "wind/solar" OR "wind+solar" OR "solar and wind" OR "solar wind" OR "solar+wind" OR "solar/wind" OR "solar&wind") AND (((grid AND (failure OR unreliable OR demand)) OR blackout OR "black out" OR "black-out" OR ((industrialised OR industrial) AND (society OR civilisation OR demand)) OR inefficient OR unreliable OR "not scalable" OR "not viable" OR "count on" OR "rely on") OR ((gas OR natgas) AND (backup OR "back up" OR "back-up" OR "stepped up" OR "provided power"))))

OR

((("wind power" OR "wind turbine" OR "wind turbines" OR "wind blades" OR "wind energy" OR "wind industry" OR windmills) AND ((landfill OR "non recyclable" OR coal OR "worn out" OR collapsing OR collapse OR "can't be recycled" OR "can not be recycled" OR "cannot be recycled" OR malfunctioning OR "falling apart" OR "falling over" OR buried OR "toxic chemicals" OR ("toxic" AND "time bomb")) OR ("neodymium" OR (china AND magnets) OR "critical minerals" OR "rare minerals" OR "rare earth minerals" OR "rare earths" OR ("not enough" AND metals) OR "made from coal" OR "made using coal" OR (toxic AND chemicals) OR ((require OR "need more" OR "needs more") AND (steel OR cement OR copper OR iron OR coal OR plastic)) OR "vinyl chloride" OR "polyvinyl chloride") OR (noise OR "sonic shocks") OR ((wildlife OR seabird OR "sea birds" OR whales OR dolphins OR insects OR bats OR "bird species" OR birds OR creatures OR humpback OR eagles OR "marine life" OR vultures) AND ("grinded up" OR "chop up" OR "chopped up" OR slaughtered OR killing OR killed OR kill OR dangerous OR extinct OR endangered OR dying OR destroying OR smashed)) OR ("de-ice" OR cleaning OR (lightning AND (strike OR struck)) OR "strong winds" OR "caught fire") OR (pollution OR "snack on" OR "run on diesel" OR "diesel generator" OR "diesel generators" OR "diesel fuel" OR (recycled AND "gummy bears") OR oil OR ("natural gas" AND beats) OR ((("never replace" OR "depends on") AND "fossil fuels")) OR ((("cut down" OR "chop down" OR "chopped down") AND (trees OR woodland)) OR ("cuts down trees" OR "space requirements" OR "balsa wood" OR deforestation OR ((needs OR require) AND ("more land" OR "natural landscape")))) OR (blackout OR "grid failure" OR unreliable OR "density" OR "wind does not blow" OR useless OR medieval OR "weather dependent" OR "not viable" OR "energy crisis" OR subsidies OR subsidised OR "don't work in reality" OR "doesn't work in reality" OR worthless OR "cost to the grid" OR (network AND "operating costs") OR ("not possible" AND "build enough") OR delusion)))

OR

((((EV OR Evs OR "EV industry" OR "electric car" OR "electric cars" OR "electric vehicle" OR "electric vehicles") AND (control OR scam OR recycle OR "battery recycle" OR "run out of battery" OR "rare earths" OR "rare earth minerals" OR "rare minerals" OR "toxic minerals" OR "cobalt mining" OR "raw materials" OR "critical minerals" OR "coal powered" OR "diesel generator" OR (chassis AND require* AND coal) OR "wood chips" OR "environmental destruction" OR "environmental problem" OR "environmentally friendly" OR ((environment* OR earth) AND (damage OR harm OR destroy* OR destruction OR harmful OR devastation OR impact OR destructive OR hazardous))) OR "non recyclable" OR nonrecyclable OR "non-recyclable" OR "more emission" OR "more emissions" OR pollution OR "really green" OR "catching fire" OR "catch fire" OR "fire accident" OR "battery fire" OR "bursting in flames" OR "bursting into flames" OR slavery OR taxpayer OR seafloor OR con OR expensive))) NOT "for kids" NOT "cruise control")

OR

((((battery OR batteries OR "car battery" OR "car batteries") AND (("enough metal" OR "not scalable" OR "require material" OR "raw material" OR "conflict" OR "die" OR "inefficient" OR "poison children" OR "lithium" OR "cobalt" OR "nickel" OR "graphite" OR "waste" OR "mining" OR "scam" OR "material shortage" OR "storage" OR "gridscale storage" OR "grid storage" OR "intermittent")))) NOT ("phone" OR "samsung" OR "lamps" OR "inbuilt" OR "home system" OR "order on" OR "remote control" OR "Vendor" OR {LED} OR "48v" OR "10ah" OR "12v" OR "150ah" OR "24v" OR "120ah" OR "18V" OR "24w" OR "pager" OR "pagers" OR "Hezbollah" OR "Israel" OR "Israeli" OR "rocket" OR "rockets" OR "missile" OR "missiles" OR Mossad OR "terrorists" OR "Beirut" OR "explosive" OR "explosions" OR "exploding" OR "Lebanon" OR "Lebanese" OR "9 times a week" OR "C4" OR {OLED} OR "512GB" OR "256GB" OR "1TB" OR "8GB" OR "16GB" OR "12GB" OR "32GB" OR "jihadi" OR {IDF} OR beeper OR beepers OR "apple" OR "(apple)"))

NOT engagementType:RETWEET NOT (author:Gideon_Kitheka OR author:DcseuS30916 OR author:kirillklip OR author:DcseuA63530 OR author:TNR_Gold OR author:DcseuF32482 OR author:sunrise_sales OR author:EKL_Batteries OR author:bridal_sposa OR author:Dcslithium OR author:BatteryPapers OR author:oderaw94 OR author:DcseuI58078 OR author:bungomaduke)

Case Study 2: Weaponising Wildfires

To examine the nature of online discussions around wildfires, researchers first analysed a sample of content from X, Reddit and YouTube using topic modelling techniques, a machine learning process used to segment large datasets into thematic clusters based on similarities in language, without introducing research biases or preconceptions. Using broad keywords related to wildfires, CAAD gathered a sample of 50k messages on X and Reddit respectively, plus an additional 50k comments sampled from the top 100 most watched videos on YouTube. The simple keywords used were 'wildfire(s)' and 'bushfire(s)'.

These messages were computationally analysed and then manually reviewed, leaving 37 clusters which we deemed relevant to wildfires, including 10 related to contrarian or climate-sceptic discourse. Researchers analysed a sample of 50 posts from each cluster to classify them and identify the most prominent themes. Based on these themes, the dataset was computationally analysed again to identify similarities in language and label all relevant messages under these categories.

As the 10 clusters identified were based on a random selection of content, they did not give a full picture of how these types of narratives are spread and by whom. As such, researchers searched for the most prominent posts corresponding to these clusters on the social media platforms, using Brandwatch to search on X alongside manual searches in YouTube and Reddit's respective search bars. The Boolean queries used at this stage of the process were:

```
((Wildfire OR wildfires OR bushfire OR bushfires OR "wild fire" OR "wild fires" OR "bush fire OR bush fires") AND  
(((("arson" OR "arsonist" OR "arsonists" OR "false flag" OR "false flags" OR "antifa" OR "deliberately starting"  
OR "deliberately started")) OR  
(("forest management" OR "forest-management" OR "land management" OR "land-management") OR  
("preparedness" OR "technology")) OR  
(("climate change" OR "global warming" OR "global temperature" OR "global temperatures") AND ("no  
trend" OR "nothing to do" OR "no connection" OR "no correlation")) OR  
(("emissions" OR "CO2" OR "carbon dioxide") AND ("no trend" OR "nothing to do" OR "no connection" OR "no  
correlation")) OR  
({WEF} OR {CIA} OR "Klaus Schwab" OR "World Economic Forum" OR "globalists" OR tyranny OR communism  
OR communists OR marxism OR marxists OR liberty OR freedom) OR  
("space laser" OR "space lasers" OR "energy weapon" OR "energy weapons" OR "laser beam" OR "laser  
beams") OR  
("Maui" AND ((("land grab" OR "Oprah" OR "Dwayne Johnson" OR "the Rock" OR "coverup" OR "400 missing")  
OR ((("Oprah" OR "elites") AND ((("buy" OR "buying") AND ("acres" OR "land")))) OR ("peoples fund" OR  
"people's fund" OR "scandal" OR "backlash" OR "controversy")))) OR  
("carbon tax" OR "Trudeau" OR ((("Canada" OR "Canadian") AND ("liberal" OR "liberals")))) OR  
"Xcel" OR "PG&E")) NOT engagementType:RETWEET
```

Case Study 3: Fossil Fuel Advertising on Meta

For this case study, CAAD used a tool connected to the Meta ads library API, which checks all Social Issues, Elections or Politics (SIEP) adverts in the database. The Meta ads API searches all content made available by that library and compiles the data returned to offer search-level analytics. This enables analysis of potential coordination between advertisers or ad funders, as well as offering more granular searches of Meta advertising content restricted by geography, ad date, platform, or active status.

Analysts looked up various advertising accounts identified in Deny, Deceive, Delay Vol. 2 and Vol. 3 via The Meta ads API from the period 24 October 2023 to 24 October 2024, representing a year from the last date analysis was conducted. We picked the top 10 accounts in terms of reach and spend from Deny, Deceive, Delay Vol. 2, and all accounts listed in Deny, Deceive, Delay Vol 3 respectively. Any advertising account from this list that passed the threshold of US\$10,000 was included in our dataset. This means the data is by no means complete, but we believe missed amounts of fossil fuel industry spend on Meta for the period should be negligible relative to the eight entities listed in this report.

Above \$10,000, all spend data in The Meta ads API is provided as a range. CAAD included both the lower range and upper range in the data tables for this report. Impressions are also provided as a range, but we only included the upper range for this metric.

For demographic and narrative analysis, CAAD narrowed the period from 1 January to 24 October 2024 – this was to avoid repeat reporting on advertising that took place during COP29, which the coalition already covered in some detail during the summit. The Meta ads API presents a summary of demographic reach per search, which we used for the charts in this report.

The Meta ads API also presents a list of all adverts searched, including the advert text which can be filtered by keyword or ordered by metric such as total spend. CAAD's analyst used these capabilities, from highest to lowest spend, to identify the main types of narratives per advertising account.

Screenshots and links to adverts were taken by clicking from The Meta ads API directly into the Meta Advertising Library and using the native functionality there. This was also used to clarify Carousel text, which doesn't appear in The Meta ads API, and occasionally to check video content when the advert text was ambiguous. Finally, non-SIEP ads were searched directly in Meta's Ad Library for the eight entities in the report, as well as some other entities we did not find SIEP ads for in The Meta ads API. This allowed us to illustrate the point around incompleteness in Meta's approach to SIEP versus non-SIEP ads.

