



InfluenceMap

Climate Change and Digital Advertising

The Oil & Gas Sector's Digital Advertising Strategy

August 2021

Climate Change and Digital Advertising: The Oil & Gas Sector’s Strategy

How the oil & gas sector uses social media to influence the narrative on climate change

August 2021

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Glossary

- **Ad** – An ad being run on at least one of Facebook’s platforms. Two separate ads with the same content are treated as separate by this research if they are also treated as such by Facebook. One ad can run on multiple platforms, for example on Facebook and Instagram.
- **Impressions** - The number of times an ad was viewed.
- **Facebook Page** - A Facebook profile.
- **Targeting** - Facebook enables its customers to target ads at users using user information including age, gender, location, connections, behavior, education, and interests.
- **Demographic Distribution** - The demographic distribution of people reached by ads. It differs from but is informed by the targeting of the ads.
- **Regional Distribution** - Regional distribution of people reached by ads. It differs from but is informed by the targeting of the ads.
- **Microtargeting** – Microtargeting is a form of online targeted advertising that analyses personal data to identify the interests of a specific audience or individual in order to influence their actions. Microtargeting is often used to offer a personalized message to an individual or audience using an online service such as social media.
- **Organic Content** – Organic content refers to digital content made by an organization or individual that is not spread through paid advertising.
- **Facebook News Feed** – The main content feed on Facebook’s platform.
- **Climate Misinformation** - Information on climate change that is initially presented as true but later found to be false. Misinformation is agnostic as to the motive of the source. (*Cook, 2019*)
- **Climate Disinformation** - Refers to false information on climate change disseminated with deceptive intent. (*Cook, 2019*)

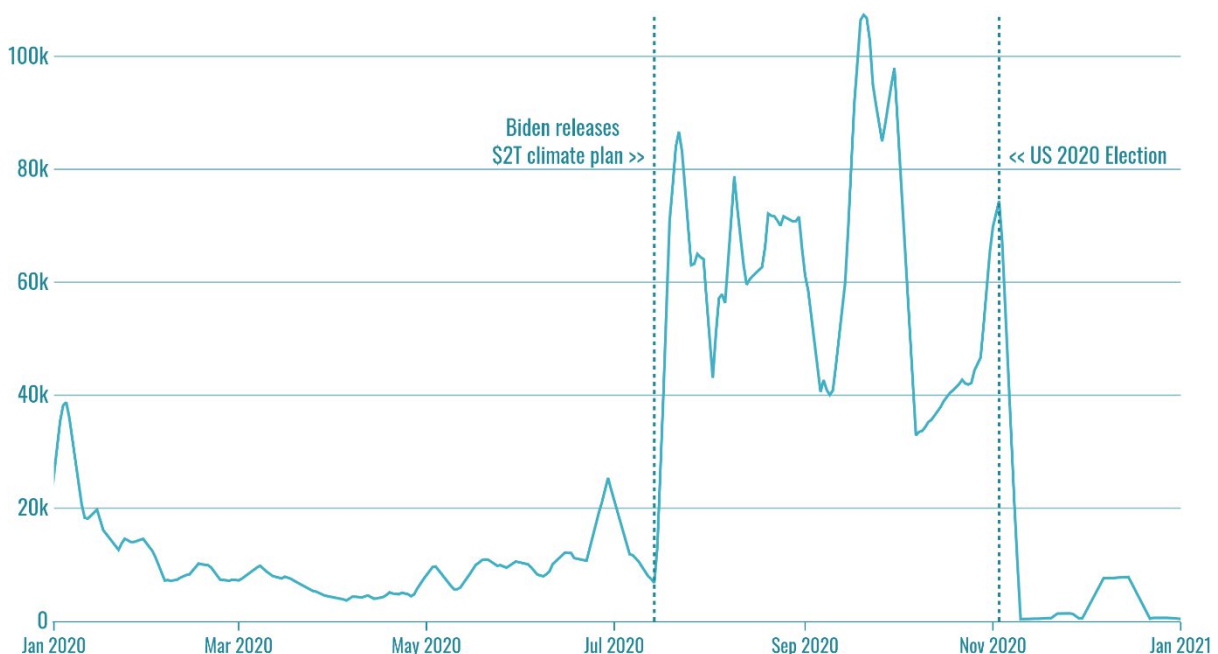
Executive Summary

Key Findings

- This research reveals the latest iteration of the oil and gas industry's playbook on climate change. The research shows the oil and gas industry is now using social media as a key avenue for advertising, posting thousands of social issue, election, and political ads every year which are designed to prolong the use of oil and gas in the energy mix. This research found 25,147 ads from just 25 oil and gas sector organizations on Facebook's US platforms in 2020, which have been seen over 431 million times. This indicates the industry is now using social media to directly reach a vast audience and influence public opinions on climate change and the energy mix.
- To do this, the industry is using a range of messaging tactics that are far more nuanced than outright statements of climate denial. Some of the most significant tactics found included tying the use of oil and gas to maintaining a high quality of life, promoting fossil gas as green, and publicizing the voluntary actions taken by the industry on climate change. Crucially, the messaging included in these ads is misaligned from the science of climate change according to the Intergovernmental Panel on Climate Change's and the International Energy Agency's analyses on reaching net zero emissions by 2050.
- The research also shows the industry is using social media strategically and deploying its ads at key political moments. Tracking the timeline of the ads covered in this research shows a jump in ad spend the day after now President Biden announced his \$2 trillion climate plan. This momentum was sustained until the US Presidential Election when Facebook then banned political advertising.

Spend on social issues, election, and political ads on Facebook in 2020

(For the ads included in this research)



- Despite its own commitment to mitigate climate change, Facebook continues to receive millions of dollars from the oil and gas industry every year to post ads promoting the use of fossil fuels. It received \$9,597,376 for the ads covered in this research. However, the true figure is likely to be significantly higher. It is not possible to know what the exact figure is because, as this research shows, the social media platform is not consistently applying its own advertising policies for climate change ads.

Recommendations

- This research faced limitations due to the lack of transparency from social media platforms. It is vital that these platforms, which wield significant power over the political landscape, are transparent on how their platforms are being used to influence the debate on climate change. This will allow for greater accountability for the platforms themselves and the organizations that use them. This research can be used to push these social media giants to be more transparent about the advertising on climate change which they allow on their platforms.
- This research speaks to the oil and gas industry's sustained campaign, which runs counter to the needed solutions to climate change as stated by the IPCC, the UN's climate science body. The results may be used by investors, policy makers and civil society groups concerned with ensuring the fossil fuel sector is aligned with climate solutions as recommended by the science-based findings from the IPCC, the IEA and others. Specifically, the results may be used in discussions regarding the impacts of fossil fuel advertising and how it is regulated governments commitment to delivering on the goals of the Paris Agreement.

Analysis of the Data

- This research found different types of entities fulfil different messaging roles. Companies, and ExxonMobil in particular, are focusing on 'Pragmatic Energy Mix' narratives, the American Petroleum Institute is posting thousands of ads on the climate-friendliness of the industry and the role of fossil gas as a climate solution, while advocacy groups are successfully using 'Community & Economy' arguments to lobbying against specific regulatory measures. Presenting fossil gas as a low-carbon fuel has increasingly been targeted by regulators as a misleading claim.
- Looking at how these ads are distributed amongst the US population it is clear more males than females overall are being shown these ads. There were, however, notable differences amongst the categories of messaging. 'Climate Solutions' narratives were the only category of messaging shown to more females than males, while 'Pragmatic Energy Mix' narratives are shown more to older age groups.
- In line with the strategic deployment of ads, the geographic distribution of the ads shows that the ads most targeted states with high levels of oil and gas production, such as Texas and New Mexico, and swing states, including Iowa and Ohio. States with specific policy battles affecting the oil and gas sector in 2020, such as Alaska, also sustained significant advertising campaigns.

Introduction

In 2021, the International Energy Agency (IEA) report on reaching '*Net Zero by 2050*' reiterated findings set out by the United Nations (UN) Intergovernmental Panel on Climate Change (IPCC)'s October 2018 *Special Report* on Global Warming of 1.5C on the need to radically decrease the role played by fossil fuels in the global energy mix to avoid catastrophic climate change. Strikingly, the IEA found that there must be no new coal, oil, or fossil gas fields beyond those already committed to from 2021. Both bodies have also stressed the need for decisive policy interventions by governments around the world to drive the energy transition and lower greenhouse gas emissions. Despite this urgent, science-based guidance, the policy plans of the world's governments are still misaligned from climate goals. According to the *International Energy Agency's* Net Zero by 2050 report, under current policies globally, we are on track for +2.7C of warming by 2100 (with 50% probability).

A key reason for this lag is the negative influence of companies and industry bodies in fossil fuel value chain sectors, working to undermine and weaken much needed climate action. In 2015, InfluenceMap developed the world's leading platform analyzing corporate engagement on climate policy to bring clarity to this issue. As a benchmark for its methodology, InfluenceMap uses the 2013 *UN Guide for Responsible Corporate Engagement in Climate Policy* as its definition of what constitutes corporate influencing of policy. The guide notes a range of corporate activities that define influencing including PR, regulatory lobbying, funding of external groups, and advertising.

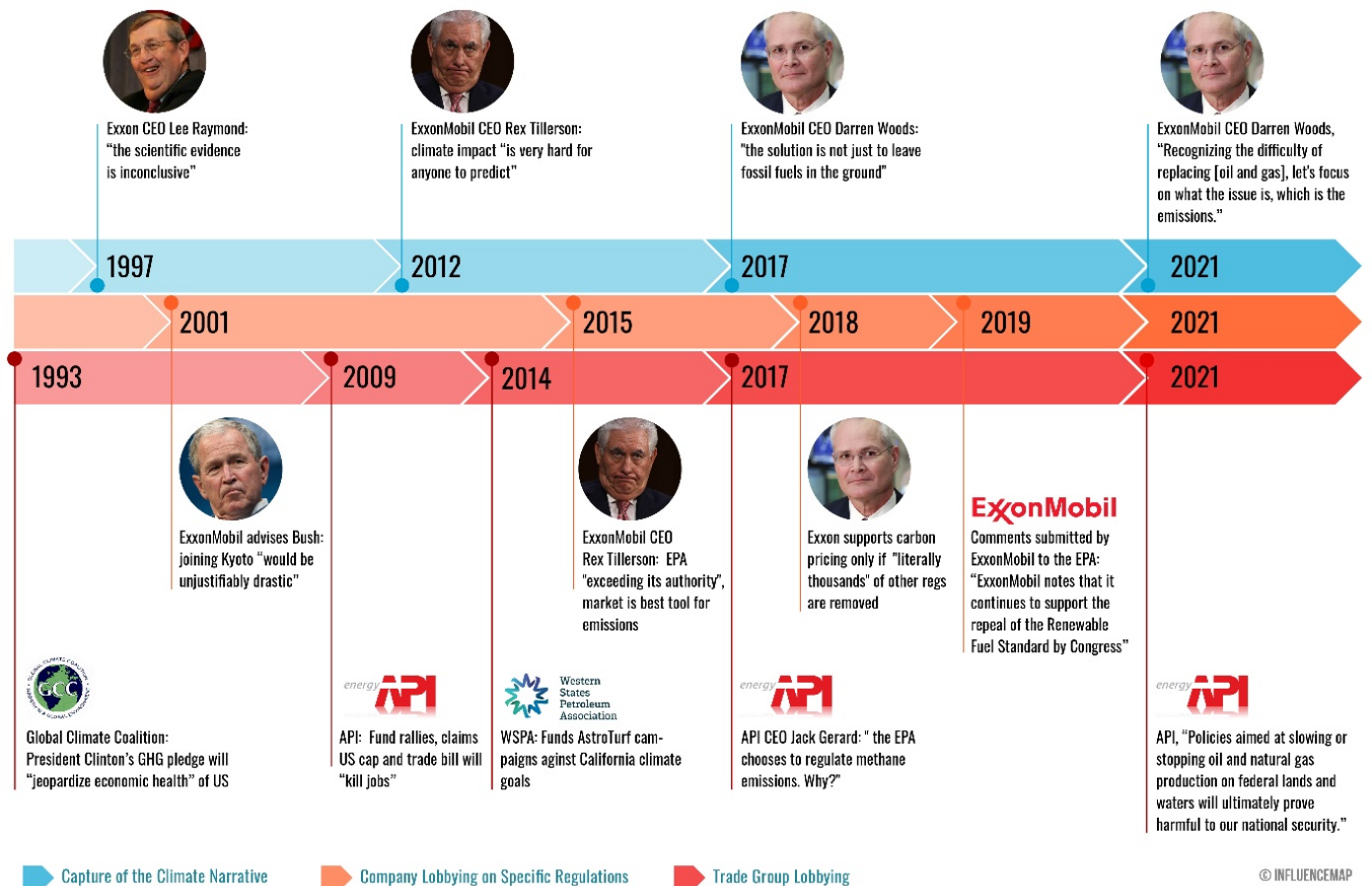
Over the last decade, online advertising has significantly increased as print and television advertising has declined, as shown in the figure below. With the migration of ads online, Facebook and Alphabet (Google) have emerged as the dominant recipients of ad spend globally, currently receiving *61% of US digital ad spending*. Given the huge rise in the use of social media advertising as an influencing strategy, InfluenceMap is conducting a detailed analysis of its use by corporations and their agents.

Determining the role of corporations and their trade groups in stalling and undermining climate policy requires a greater understanding of how fossil fuel corporations are using advertising to build 'climate-friendly' brands and control the narrative on climate change and climate policy. This report aims to examine how the oil and gas industry is using paid-for social media advertising on Facebook's US platform to capture the narrative on climate change.

The Oil and Gas Sector's Evolving Playbook

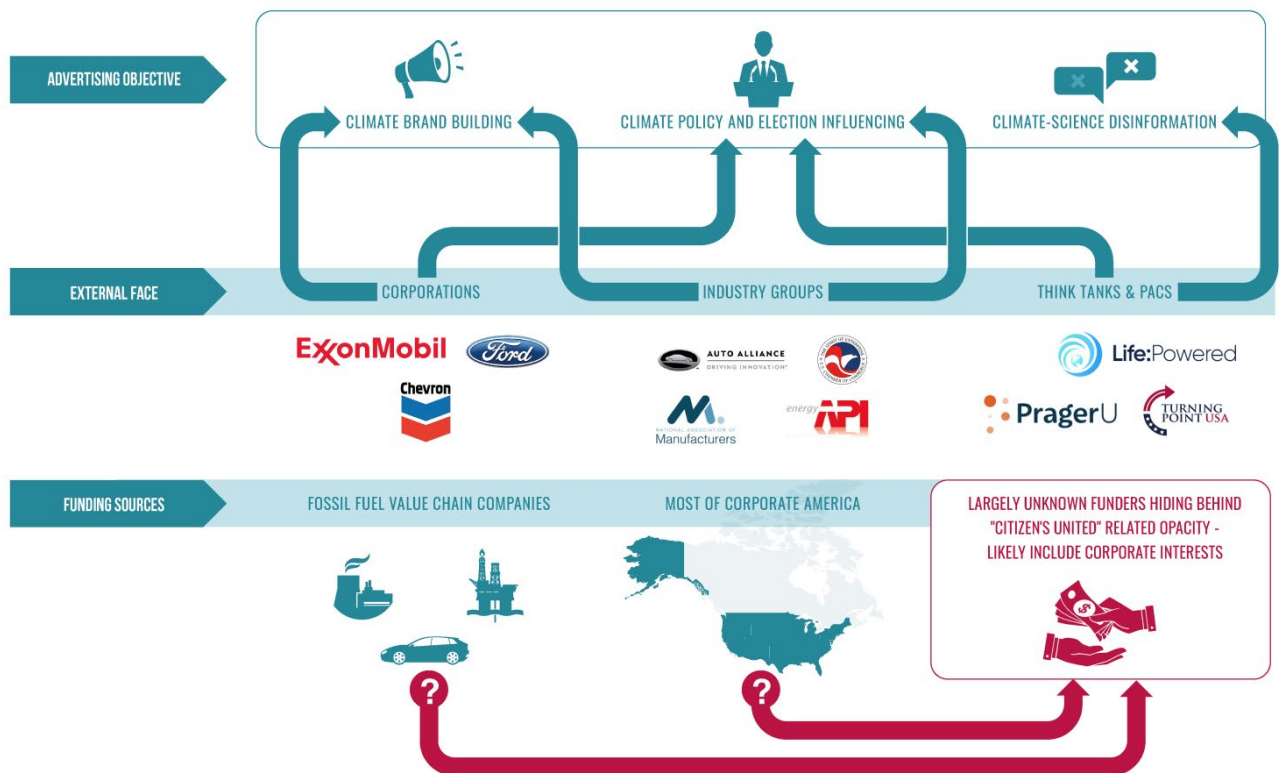
"Did we aggressively fight against some of the science? Yes. [...] Did we join some of these shadow groups to work against some of the early efforts? Yes, that's true. But there's nothing, there's nothing illegal about that." - Keith McCoy, Senior Lobbyist for ExxonMobil, reported on 30th June 2021.

Evidence shows that in the past, major oil and gas companies have both directly and indirectly denied or cast significant doubt on the science of climate change. The purpose of denying climate change has been to prevent the implementation of regulation that would limit or mitigate climate change as such regulation would have reduced the demand for fossil fuels, including oil and gas. With increasing scrutiny from investors, regulators, and the public, however, outright denial has increasingly become an unviable tactic for these major companies. In its place, oil and gas companies have developed an increasingly nuanced and subtle set of messaging techniques, often utilizing elements of the science on climate change in misleading ways. These include, for example, promoting gas as a low-carbon climate solution and suggesting emissions reductions should be consumer-led. These messages are often packaged in adverts promoting the climate-friendliness of oil and gas companies and the necessity of oil and gas for maintaining a high quality of life.



Following sustained attention from regulators on the role played by oil and gas companies in both historically and currently delaying action on climate change, it is vital to pay attention to the messaging and lobbying deployed by the industry associations representing oil and gas companies. Industry associations play an important role in delaying climate action in two key ways. Firstly, industry associations, such as the American Petroleum Institute, claim to represent the entire oil and gas sector in their respective regions. As such, lobbying from these groups may be more powerful than any single company acting alone. Secondly, industry associations provide cover to the companies on whose behalf they act from being directly implicated in negative lobbying on climate change. As such, it appears part of the modern-day playbook on oil and gas sector lobbying is to hide behind third parties.

There is also another group working against climate policy: right wing think-tanks and advocacy groups with opaque sources of funding. InfluenceMap's *previous work* on climate science disinformation in advertising on Facebook's US platforms demonstrated that these groups have picked up the mantle of outright climate denial and are using social media to distribute these messages. Due to a lack of transparency regarding the funding of these groups, it is unclear whether there is still active collusion between oil and gas companies, their industry associations, and these climate denial groups as has been demonstrated in the past. What is clear however, is that all these entities - corporations, industry associations, and advocacy groups - are working from the same broad playbook, designed to undermine, delay, and distract from the implementation of science-aligned climate policy. Through looking at the messaging techniques used in advertising by companies, industry associations, and advocacy groups representing the oil and gas sector, this research will look to reveal the oil and gas sector's current playbook on climate change.



Disclosure of political, social, and issue advertising

This research has been enabled by data provided via Facebook’s Ad Library. Facebook launched its Ad Library in May 2018 following controversy over the *Cambridge Analytica scandal* and Facebook’s role in elections. The disclosure platform allows users to view the content of all active ads, as well as past political and issue ads, across Facebook’s platforms (Facebook, Instagram, WhatsApp and Messenger). The Ad Library specifically provides data on political and issue advertising, which in the US includes ads related to climate change. This data includes spend, impressions, demographic and regional distribution related to each advert. By accessing this data through the Facebook Ad Library application programming interface (API), InfluenceMap is able to aggregate spending, impressions and distribution metrics across multiple ads, as well as programmatically analyze the contents of the ads.

The table below shows the current state of disclosure around political and issue advertising for the major digital advertising platforms. Due to Facebook’s size and the availability of data, this research focuses on data from Facebook. Should Alphabet or Twitter disclose data on climate-related ads, InfluenceMap will expand its analysis to include their data in future reports on digital advertising.

| Company (all platforms) | Total Revenue, Financial Year 2020 (\$Bn,USD) | Does the Advertising Disclosure Platform Exist? | Discloses Data on Ads (Includes Spend and Impressions) | |
|----------------------------|---|---|--|--|
| | | | Ads about Politics and Elections | Ads about Issues (e.g. climate change) |
| Alphabet (Google, YouTube) | 182 | Yes | Yes | No |
| Facebook | 86 | Yes | Yes | Yes* |
| Twitter | 4 | No | Banned | Banned with exceptions** |

* InfluenceMap has found a number of Facebook ads related to climate change that have not been labelled as political or issue ads. Hence, no data on these ads has been made available. See section on Facebook’s Advertising Policies and Review Process for more detail.

** Twitter does not classify climate related ads from corporations and industry groups as political or issue advertising, and they are therefore not banned from the platform.

Facebook's Advertising Policies and Review Process

Social media platforms are under increasing scrutiny for distributing misinformation. Given the power of social media to influence politics and popular debate, it is vital these platforms effectively tackle misinformation, including misinformation on climate change. InfluenceMap's *earlier report* found Facebook had not been applying its own advertising policies regarding climate science disinformation. Moreover, in conducting that research, InfluenceMap noted that some ads were not correctly labeled as being about climate change. Given this research's dependence on the Facebook Ad Library, and in turn, Facebook effectively and accurately applying its advertising policies, InfluenceMap compared the application of Facebook's advertising policy on social issues, elections, and politics ads between different oil and gas companies. Once again, InfluenceMap found Facebook's implementation of its advertising policy was highly inconsistent.

Ads targeting social issues, elections, and politics

All of the ads included in this research were found using Facebook's Ad Library. The Facebook Ad Library is designed to make all Facebook ads accessible to the public and provides data on the spend, impressions and distribution of ads that are labelled as being about social issues, elections, or politics. Political and issue ads are also kept on the Facebook Ad Library after they have stopped running, however, ads not categorized as such are removed from the Ad library once the ad has expired.

Facebook *states* that advertisers wanting to place electoral, political and social issue ads should complete the ad authorization process, confirm the advertiser's identity, and then add a "Paid for by" disclaimer that accurately reflects the organization or person paying for the ads. According to Facebook, all ads about social issues, elections, or politics are *reviewed* through a combination of artificial intelligence and/or human review against the Facebook's advertising policies. If an ad violates Facebook's advertising policies, the ad is *rejected*.

According to Facebook's *advertising policies*, ads containing 'Prohibited content', should be removed or rejected by the platform. 'Prohibited content' includes the following:

- **'Misinformation'**: Defined as ads that include claims debunked by third-party fact-checkers or, in certain circumstances, claims debunked by organizations with particular expertise. InfluenceMap previously found significant issues with Facebook's enforcement of this policy regarding ads containing *climate science disinformation*.
- **'Misleading Claims'**: Defined as ads containing deceptive, false, or misleading advertising.

Additionally, Facebook's advertising policies includes ads about social issues, elections, and politics as 'Restricted Content'. Social issues that *fall* under this categorization in the US include civil and social rights, crime, the economy, education, environmental politics, guns, health, immigration, political values and governance, and security and foreign policy. Ads about these issues, elections or politics must comply with

additional requirements including the use of disclaimers, disclosure, and ad labelling. These ads have a small megaphone icon above them. These ads are then stored in the Ad Library.

Facebook *provides examples* of ads that require disclaimers and ads that do not, including for environmental politics.

| Example | Definition | Requires authorization and a disclaimer | Doesn't require authorization and a disclaimer |
|------------------------|--|---|--|
| Environmental Politics | Ads about environmental politics, with ad content that includes discussion, debate, and/or advocacy for or against topics including but not limited to climate change, renewable/sustainable energy and fossil fuels, are subject to review and enforcement. | <p><i>"Renewable energy is the only way to preserve our planet."</i></p> <p><i>"Offshore oil drilling is a benefit to local communities; creates many high-paying new jobs."</i></p> <p><i>"How can we better tackle climate change?"</i></p> | <p><i>"Energy-efficient LED light bulbs: on sale now – learn how these can help lower your energy bill."</i></p> <p><i>"New smart solar panels can lower your energy bills."</i></p> |

Facebook states that running ads about social issues, elections, or politics without authorization, providing false or misleading information in the authorization process, or violating the advertising policies, may lead to *the following actions*:

- Unpublishing associated pages.
- Disabling existing ads.
- Restricting the ability to run new ads.
- Restricting the ability to merge Pages.
- Revoking authorization to run ads about social issues, elections, or politics.

No further information is supplied on how Facebook decides which of these measures it implements and after how many instances of non-compliant advertising.

Methodology

Research Process

In conducting this research, InfluenceMap followed these steps:

Scope & Data Collection

- InfluenceMap generated a list of all advertisers running ads related to climate change in the US in 2020. To generate this list, InfluenceMap ran a selection of climate specific search terms (full list can be found in the more detailed methodology document) through the Facebook library API.
- The data from Facebook's Ad Library API also includes information on spending. Using this information, InfluenceMap was able to aggregate the data to get a list of advertisers and how much they spent on the climate related ads returned by the search. From this list, InfluenceMap identified the top 10 corporations by spend on Facebook ads, the top 5 industry associations (by the same measure) representing the oil and gas sector, and 10 advocacy groups that spend over \$5000 with reported or apparent industry links. These entities were used to conduct the research. A full list can be found in Appendix A.
- Across all 25 entities, InfluenceMap found a total of 30,100 unique ads running on Facebook platforms. As ad campaigns often run multiple adverts with identical or very similar text, InfluenceMap used an algorithm to "compress" the dataset by matching ads where the text of the ad was identical or shared at least 80% of the same characters.

Content Analysis Method

- Each ad obtained in the above process was then further assessed by InfluenceMap analysts to detect if the ad contained narratives or arguments that promoted a climate-positive corporate image or promoted the role of oil and gas in the energy mix.
- InfluenceMap developed four broad categories based on *Miller and Lellis's (2016)* work looking at audience responses to ads from fossil fuel companies. The four categories used by InfluenceMap in this research were 'Community & Economy', 'Climate Solutions', 'Pragmatic Energy Mix', and 'Patriotic Energy Mix'. Ads that did not fit these categories were excluded. A description of each category and the key narratives included below. A more detailed version of the typology with examples of ads can be found in Appendix B. InfluenceMap's coders achieved an Intercoder Reliability Fleiss-Kappa score of 0.78 on the final typology used.

| Categories | Explanation | Examples of key narratives |
|------------------------------------|--|---|
| Community & Economy | Includes narratives about the role of the oil and gas industry in local communities and the broader economy. | Entity/Industry helps the economy |
| | | Entity/Industry provides jobs |
| | | Entity/Industry helps community through philanthropic efforts |
| Climate Solutions | Includes narratives promoting the 'green/clean' climate efforts of the industry and is designed to capture narratives suggesting the oil and gas industry is 'part of the solution' on climate change. | Entity/Industry supports reducing greenhouse gas emissions |
| | | Entity/Industry supporting transitioning the energy mix |
| | | Entity/Industry supports the use of gas as, a clean/green/low-carbon energy source or a climate solution. |
| Pragmatic Energy Mix ('Pragmatic') | Includes narratives which promote the benefits of oil and gas as energy sources to the functioning of people's everyday lives. | Oil & gas are affordable |
| | | Oil & gas are reliable |
| | | Other narratives promoting the benefits and/or uses of using oil and gas |
| Patriotic Energy Mix ('Patriotic') | Includes narratives tying the production of domestic oil and gas to energy independence and energy leadership for the US. | Energy Independence |
| | | Energy Leadership |

Collating the Results

- All ads that did not contain the narratives or arguments tested for in accordance with the final framework were filtered out. The remaining dataset of relevant ads includes data on the demographic reach, impressions and spend of each advert. All ads were then analyzed in aggregate to assess the state of advertising designed to promote a positive corporate image of the oil and gas industry and promote the role of oil and gas in the energy mix. Using this data, InfluenceMap was able to look at the trends in age, gender, and regional distribution, as well as the prominence of topics and arguments across the entire sample.

Assessing Alignment with the Science

- InfluenceMap used the Intergovernmental Panel on Climate Change's (IPCC) Special Report on 1.5C and the International Energy Agency's (IEA) report on Net Zero by 2050 as benchmarks for determining alignment with the science. Once the data had been collected and analyzed, InfluenceMap compared key messaging categories to the IPCC and IEA benchmarks on the role of oil and gas in net zero by 2050 aligned pathways, the level of investment required by the industry into low-carbon solutions, and the responsibility for emissions reductions.

Key Findings

Overview

The findings reflect a sample of the ads from the oil and gas industry on Facebook’s US platforms posted in 2020. Between the 25 entities covered in this research, there were 25,147 number of ads engaged in promoting the role of oil and gas and promoting the climate-friendliness of the sector. This represented 84% of all the ads analyzed. These ads had an approximate cumulative spend of \$9,597,376 and 431,983,462 total impressions. Out of the entities included in this research, the American Petroleum Institute and ExxonMobil were the largest users of paid for ads on Facebook’s US platform in 2020 by a significant amount. They accounted for approximately 139 million and 129 million ad impressions respectively, or 62% of the total ads (by number of ads) analyzed by InfluenceMap.

Narrative Analysis

The 25,147 ads found were analyzed for what messaging strategies they used. By impressions and spend, the most popular messaging type was 'Pragmatic Energy Mix', accounting for 42% of total spend and 37% of total impressions. Narratives belonging to this category promoted the benefits of using oil and gas, often in everyday settings, such as the home.

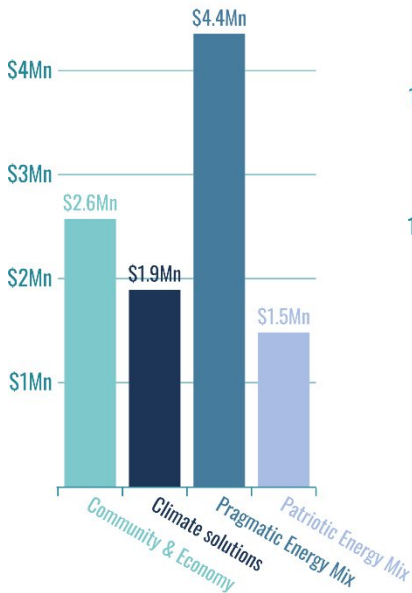
The next most popular categories of messaging were 'Community & Economy', which featured narratives promoting the economic benefits of the oil and gas industry to the national and local economy, and 'Climate Solutions', which contained narratives promoting the climate-friendliness of the industry and the role of gas as a climate solution. Ads containing 'Patriotic Energy Mix' narratives were the least common in spend, impressions, and number. Despite this, ads claiming the development and production of domestic oil and gas would benefit the US were still seen over 55 million times and proved more common in ads coming from regionally based industry associations, such as the Texas Oil and Gas Association.

| Categories | Explanation | Number of ads (and percentage of sample), Spend, Impression* | Examples of key narratives |
|---------------------|--|--|---|
| Community & Economy | Includes narratives about the role of the oil and gas industry in local communities and the broader economy. | Number (%): 5542 (22%) Spend: \$2,575,779 Impressions: 134,626,737 | Entity/Industry helps the economy |
| | | | Entity/Industry provides jobs |
| | | | Entity/Industry helps community through philanthropic efforts |
| Climate Solutions | Includes narratives promoting the 'green/clean' | Number (%): 12140 (48%) | Entity/Industry supports reducing greenhouse gas emissions |

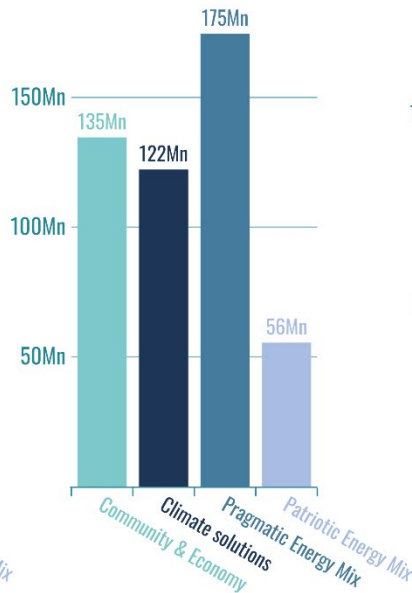
| | | | |
|----------------------|--|--|--|
| | climate efforts of the industry and is designed to capture narratives suggesting the oil and gas industry is 'part of the solution' on climate change. | Spend: \$1,893,080 Impressions: 122,248,437 | Entity/Industry supporting transitioning the energy mix Entity/Industry supports the use of gas as, a clean/green/low-carbon energy source or a climate solution. |
| Pragmatic Energy Mix | Includes narratives which promote the benefits of oil and gas as energy sources to the functioning of people's everyday lives. | Number (%): 7749 (31%) Spend: \$4,354,825 Impressions: 174,545,645 | Oil & gas are affordable Oil & gas are reliable Other narratives promoting the benefits and/or uses of using oil and gas |
| Patriotic Energy Mix | Includes narratives tying the production of domestic oil and gas to energy independence and energy leadership for the US. | Number (%): 2904 (12%) Spend: \$1,482,998 Impressions: 55,474,052 | Energy Independence Energy Leadership |

Distribution of Messaging Categories by Spend, Impressions and Number of Ads

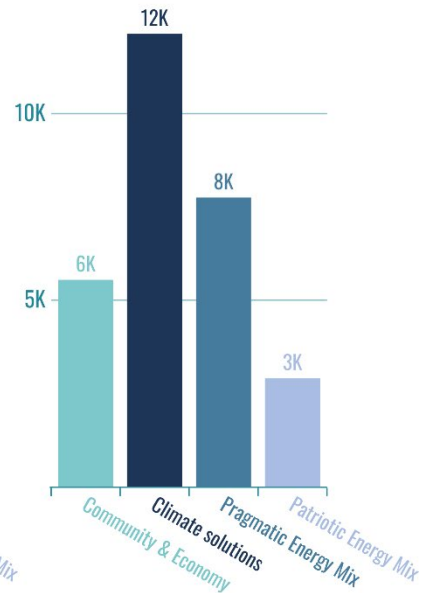
Spend (\$ USD)



Impressions



Number of Ads

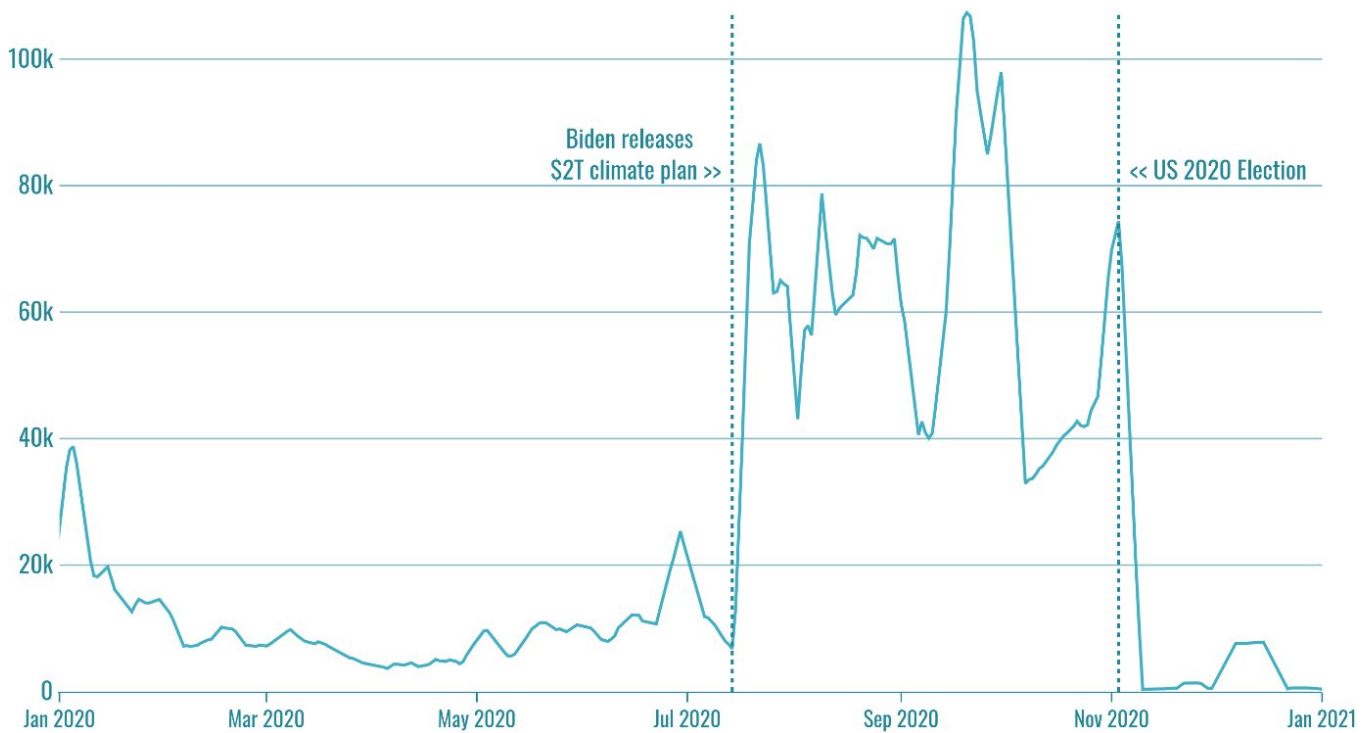


Distribution of Ads Over 2020

Looking at the spend on social issue, election, and political ads over 2020, it is clear there was a significant increase in spend on July 15th, the day after then presidential nominee Joe Biden, announced his \$2 trillion climate plan, which was intended to increase the use of clean energy in transportation, electricity and buildings. This spending remained high until November 3rd, the date of the US election, when it then dropped off completely with only minor spending again through till the end of the year. This suggests the oil and gas industry uses Facebook advertising strategically and for politically motivated purposes.

Spend on social issues, election, and political ads on Facebook in 2020

Daily spend on Facebook ads in the US, from all fossil fuel groups analyzed (7-day rolling average)

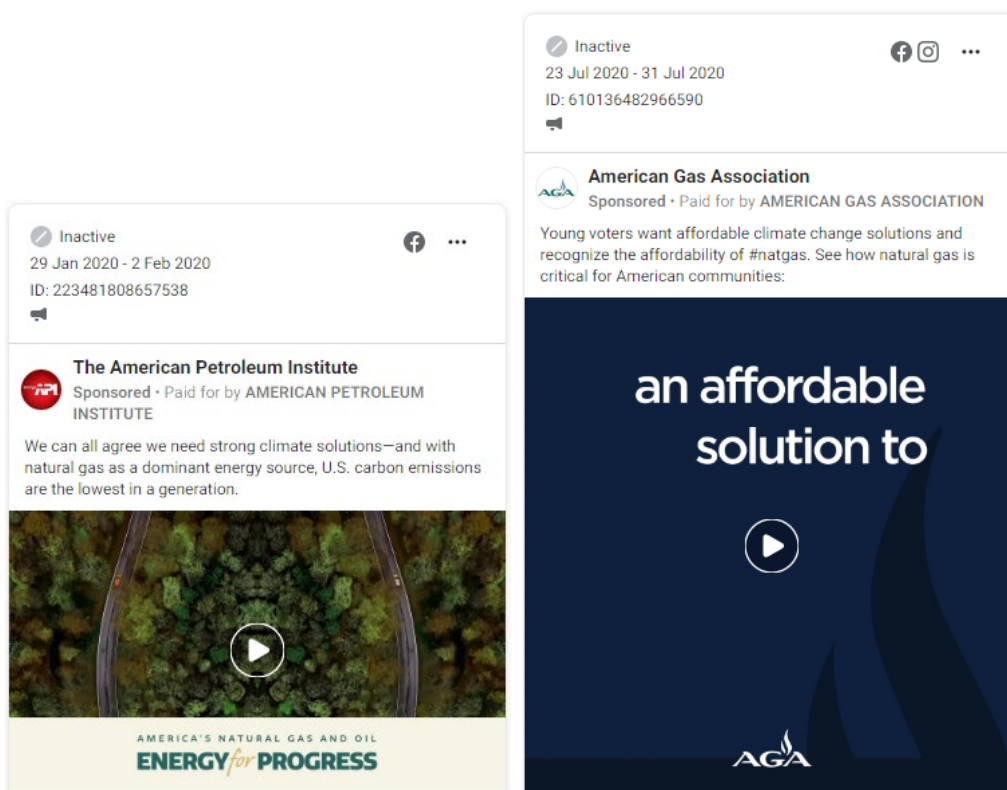


Alignment with Climate Science

InfluenceMap compared two key messaging categories ('Climate Solutions' and 'Pragmatic Energy Mix') to the science of the *Intergovernmental Panel on Climate Change's* Special Report on 1.5C and to the *International Energy Agency's* Net Zero by 2050 report.

'Part of the Solution'

Within the 'Climate Solutions' category, the most frequent narrative was that fossil gas is 'green' or 'clean' (27.0% of total ads, 6782 individual ads). Approximately \$879,409 in total was spent on these ads, resulting in a total of 69,044,614 ad impressions on Facebook in 2020. This claim is used to argue that fossil gas should be a significant part of the energy mix going forward, for example, as the 'perfect partner' to renewables, or that coal-to-gas switching is a type of climate solution.



According to Facebook's advertising policies, the platform prohibits ads containing misleading information and misinformation. The claim that gas is a green/clean/low-carbon energy source has been challenged by multiple sources (see Appendix C for a list of academic studies), and in 2019, the UK Advertising Standards Authority issued a *warning* to Equinor over ads implying gas was a low-carbon energy source. The claim that fossil gas is low-carbon fuel source disguises the fact that fossil gas is predominantly made up of methane, a greenhouse gas with a warming effect *86 times greater* than carbon dioxide over a 20 year period according to the Intergovernmental Panel on Climate Change (IPCC), which is routinely *released* in the production, processing, transportation and storage of fossil gas. Numerous studies have found that the methane emissions released from the fossil gas supply chain are far higher than estimated by the US EPA,

thereby contesting claims the use of fossil gas has had a positive impact on emissions reduction and mitigating climate change by multiple sources (please see Appendix C for a list of academic studies).

The suggestion that gas is a climate solution further runs counter to the research and recommendations of both the *Intergovernmental Panel on Climate Change's* (IPCC) and the *International Energy Agency's* (IEA) 1.5C pathways. The IEA states that in order to reach net zero greenhouse gas emissions by 2050, there should be no new oil and gas fields approved for development beyond those already committed to as of 2021. Furthermore, according to the IEA, the use of fossil gas falls from 136 exajoules (EJ) in 2020 to 60 EJ in 2050, of which 43 EJ is used in conjunction with carbon capture and underground storage (CCUS), and only 7 EJ of which is used in electricity and heat sectors. The remaining fossil gas is used for fuels, non-combustibles, and a small amount is used in industry in the production of energy.

Given this dramatic decline in the use of oil and gas, the IEA outlines two future pathways for the industry. The first is to develop new technologies needed to tackle emissions in hard to abate sectors, and the second is to become broader 'energy companies', focusing on low emissions technologies and fuels. However, the IEA's 2020 report on '*The Oil and Gas Industry in Energy Transitions*', looking at the capital investments made by the oil majors up to 2019, demonstrates the industry is continuing to focus on producing unabated oil and gas, with less than 1% of capital investment spent on renewables or CCUS. Accordingly, both the narrative that gas is a climate solution and the narrative that the oil and gas industry is working to be 'part of the solution' on climate change, are misleading.

Powering Everyday Life

The most popular narrative category by impressions and spend was the 'Pragmatic Energy Mix' category. This includes statements that tie the use of oil and gas by consumers to maintaining quality of life, such as using oil and gas to 'power everyday life', 'heat and cool their homes' and 'keep the lights on'.

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 3 Feb 2020 - 14 Feb 2020
 ID: 554023881862187

Coloradans for Responsible Energy Development
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Fracking touches almost every aspect of our lives in Colorado. From keeping our homes and businesses warm on chilly days, to keeping the lights on and powering our stoves and water heaters, fracking is leading the way to a reliable and more affordable energy future.

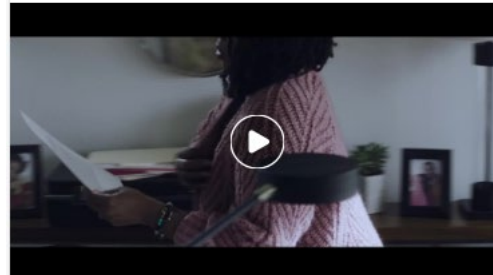
<https://www.cred.org/natural-gas-oil-uses/>



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 22 Oct 2020 - 3 Nov 2020
 ID: 268458784507164

Energy Citizens
 Sponsored • Paid for by AMERICAN PETROLEUM INSTITUTE

Access to natural gas and oil means reliable energy Americans can count on to heat and cool their homes and power everyday life.



In May 2021, Harvard science historian Naomi Oreskes and Harvard research associate Geoffrey Supran *published peer-reviewed research* in the academic journal, *One Earth*. Supran and Oreskes' research analyzed the 180 climate change communications from ExxonMobil to investigate the rhetoric and framings used by the company in relation to climate change. The research found ExxonMobil's public climate change messaging used multiple strategies, including the use of 'demand-as-blame' arguments, to argue that consumer demand – rather than corporate supply of fossil fuels – is the cause of the ongoing use of oil and gas and subsequently, the primary driver of greenhouse gas emissions and climate change. This rhetorical tool redirects responsibility for the production of oil and gas onto consumers rather than corporations. That climate change is a problem to be fixed by consumers contradicts the science of the International Energy Agency (IEA). In its *Net Zero by 2050 report*, the IEA states:

- 40% of emissions reductions result from the adoption of low-carbon technologies that require massive policy support and investment but little direct engagement from citizens or consumers, e.g., technologies in electricity generation.
- 55% of emissions reductions require a mixture of deployment of low-carbon technologies and the active involvement or engagement of citizens and consumers, e.g., buying an electric vehicle.
- Just 8% of emissions reductions stem from behavioral changes and materials efficiency gains, e.g., flying less.
- Of the emissions reductions stemming from consumer's behavioral changes, 75% of emissions reductions are achieved through targeted government policies support by infrastructure development, e.g., a shift to rail travel supported by high-speed railways. The remainder come from adopting voluntary changes in energy saving habits, mainly in homes.

Furthermore, the IEA states that even in this case, public awareness *campaigns can help shape day-to-day choice* about how consumers use energy. By the same logic, so does fossil fuel industry advertising.

In addition to establishing the need for energy, the category of 'A Pragmatic Energy Mix' also includes narratives that promote the advantages of using of oil and gas. These include oil and gas as an **affordable** energy source (present in 11% of total ads, 2855 individual ads), and oil and gas as a **reliable** energy source (present in 11% of total ads, 2730 individual ads), Other positive adjectives used to describe oil and gas including that they are safe, efficient, and accessible, were present in 5259 individual ads, or 21% of total ads.

These statements serve to encourage the ongoing use of fossil fuels for the activities described above, namely, to 'power everyday life', again contradicting the science of both the Intergovernmental Panel on Climate Change and the IEA, given the predicted future roles for oil and gas.

Alignment with Facebook's Advertising Policies

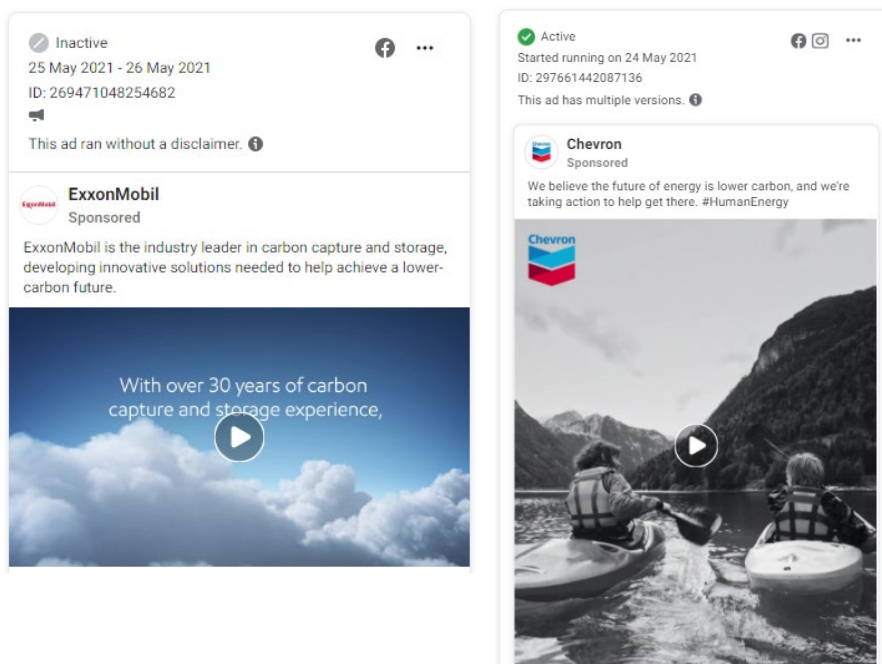
The research raises serious questions around the suitability and implementation of Facebook's advertising policies. These are broken down into: 1. Inconsistencies in labelling ads about climate change and how this affects the researcher; 2. Clarity around taking further action against repeat offenders of Facebook's advertising policy; and 3. What Facebook defines as misinformation and/or misleading claims.

1. Inconsistency in labelling ads about climate change

In *May* and *June 2021*, Chevron paid for ads stating: 'We believe the future of energy is low carbon, and we're taking action to help get there. #HumanEnergy'. This statement appears to fit with the examples given by Facebook as statements that require authorization and disclaimers. Neither of these ads had been categorized as ads about environmental politics. As of July 9th, 2021, these ads have expired and are no longer accessible to researchers. As of July 9th 2021, Chevron is currently running ads stating, 'It's only human to want to be part of the solution' in reference to a 'lower-carbon future', as well as a number of ads promoting the company's investment into 'renewable diesel' (see Appendix D for images). None of these ads have disclaimers on them, and once expired will not be stored on the ad library.

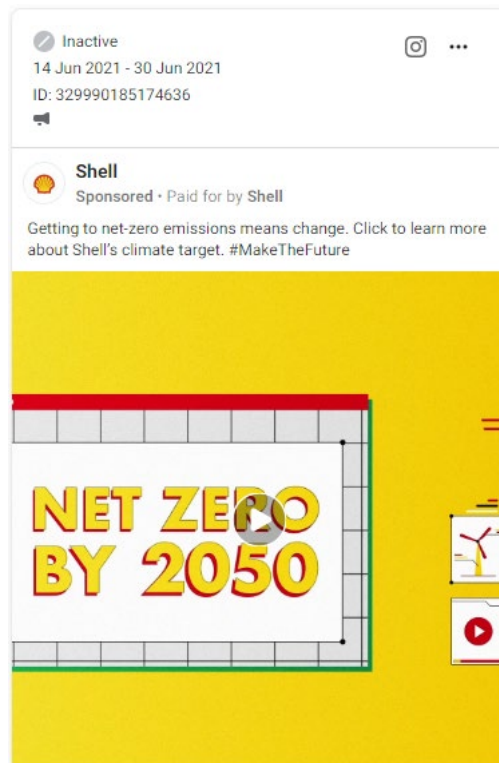
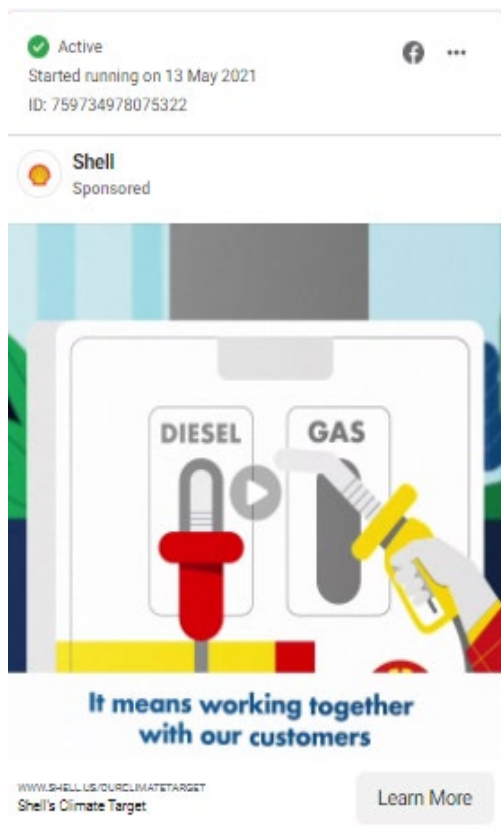
In comparison, in *May 2021*, ExxonMobil attempted to run an ad stating: 'ExxonMobil is the industry leader in carbon capture and storage, developing innovative solutions needed to help achieve a lower-carbon future' without a disclaimer. After a day of running, Facebook marked it as an electoral, political, or social issue ad and stopped the ad from running. It is unclear why Facebook considers the ExxonMobil ad as being about environmental politics and not the Chevron ads. A comparison can be seen below.

Chevron ad which ran without a disclaimer and is now no longer available on the Ad Library vs ExxonMobil ad removed for not having a political and issue ad disclaimer:

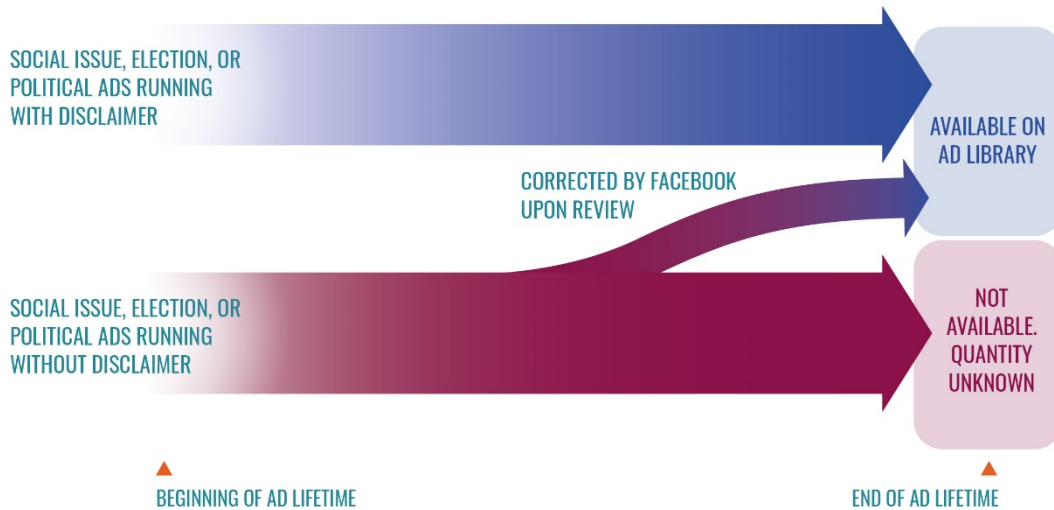


InfluenceMap also identified instances where Facebook’s application of its advertising policy has been inconsistently applied across ads from the same company. *In May and June 2021* Shell paid for several ads featuring a video detailing the company’s support for net-zero emissions by 2050 and proclaimed the company would be taking action to reach that target. Ads with a brief text intro were labeled as social issue, electoral, or political ads, while those without the text but the same exact video were not. On June 15th, InfluenceMap took a screenshot of a Shell ad that was running without a disclaimer. On the 30th June, InfluenceMap took a screenshot of an identical Shell ad (shown below) that was also running in June with a disclaimer. By this date, the previous ad (identified below as ID: 759734978075322) had expired and was no longer available on the Ad Library. Both ads can be seen below.

According to Facebook’s *advertising policies*, its review *may* (emphasis author’s own) include the specific components of an ad (including images, video, text and targeting information). No further information is provided on which components of an ad Facebook chooses to review or why. It is unclear, therefore, how Facebook reviewed the below ads and why Facebook only labelled some of them as ads about social issues, elections, or politics. These inconsistencies in Facebook’s application of its advertising policy have consequences for the research.



The ads used in this research all had disclaimers. It is this disclaimer that leads to the ad being stored in the Ad Library, where it is then accessible to the researcher. Most of the ads had been properly labelled from the beginning of their lifecycle. Some, however, had not and in these instances, Facebook adds an additional disclaimer stating such. It is not possible however, to know how many ads there are on Facebook's platforms that are about climate change, which were not labelled to begin with and that were not then later picked up by Facebook. These ads run as non-social issue, electoral, and political ads do, without a label, and then are not stored in the ad library once their runtime is complete. This dynamic is explained in the graphic below.



2. Further action against repeat offenders

According to the Ad Library, the entities included in this research have cumulatively had 182 ads removed for not having been properly labelled as ads about social issues, elections, or politics in 2020. This represents 0.5% (or 1% of the spend) of the 30,100 ads analyzed in this research. One group, Energy Citizens, run by the American Petroleum Institute, had 73 political and issue ads taken down by Facebook for not running with a disclaimer in 2020.

As of July 8th, there does not appear to have been any actions taken against any of the entities included in this research. As mentioned previously, Facebook supplies no further information as to at what point it will take any action beyond relabeling ads against repeat offenders of its advertising policies.⁷

⁷ Upon reviewing the findings of this report in an advance copy sent to Facebook, Facebook informed InfluenceMap on 31st July 2021 that it has taken actions against administrators of some of the Pages belonging to the entities identified in this report. These actions include, but are not limited to, taking down violating ads and restricting users' ability to advertise on our platform. Facebook did not specify against which entities these actions were taken, for what adverts, or the timeframe in which this occurred.

3. Misinformation and/or Misleading Claims

According to Facebook's own advertising policies, it prohibits ads containing misinformation and misleading content. In response to InfluenceMap's finding of 6,782 ads promoting fossil gas as a clean, green climate solution on the company's US platforms in 2020, a spokesperson for Facebook replied: *"We reject ads when one of our independent fact-checking partners rates them as false or misleading and take action against pages, groups, accounts, and websites that repeatedly share content rated false."*

As stated in InfluenceMap's *previous report* on climate disinformation advertising on Facebook, it is unclear which ads Facebook passes on its fact-checking partners. It is unclear whether any of the 6,782 ads promoting fossil gas as a clean or green had been sent to Facebook's fact-checkers, however, none were removed as misinformation or misleading content. Yet this same claim has increasingly come under scrutiny from regulators for misleading consumers. For example, in 2019, ClientEarth filed a complaint with the Organization for Economic Cooperation and Development (OECD) against BP for deceptive advertising in part due to its *promotion of gas* as essential for human development, while Equinor *was issued a warning* by the UK Advertising Standards Authority also in 2019 for its ads claiming gas was a low carbon fuel. Following these challenges, BP and Equinor both stopped the advertising campaigns in question.

As for how Facebook defines misinformation in relation to climate change, the previous section of this report demonstrates that many of these messages are not aligned with science of climate change according to the IPCC and the IEA.

The research demonstrates that the oil and gas industry is using a more sophisticated playbook to undermine climate action, which involves the use of more subtle and nuanced messaging tactics. It is important advertising policies can keep up with this evolving playbook and are able to recognize misinformation and misleading claims about climate change that do not present as obviously as clear statements of climate denial.

Conclusion and Recommendations

Transparency on Social Media Platforms

This research has demonstrated that there is a lack of transparency from the major platforms when it comes to advertising. While the Facebook Ad Library cover over 125 countries and territories, the Ad Library API, which allows researchers to download the ad data, only extends to the UK, the US and Brazil. On top of this, Facebook's Ad Library only stores ads disclaimed to be about social issues, elections, or politics past their planned run-time. As this research has demonstrated, however, the accuracy and consistency with which these ads are correctly identified – and therefore stored – is itself limited. These issues with transparency on climate change ads could be addressed if *all* adverts were stored indefinitely and made accessible to researchers. Using the limited data that is available, this research demonstrates how social media advertising is being used to influence the debate on climate change and climate policy. It is important, therefore, to be able to thoroughly monitor and examine how ads on social media platforms are being used, and this requires greater transparency. This research can therefore be used to argue for greater transparency from all platforms (including Facebook, Twitter, and Alphabet) that allow advertising from the fossil fuel sector.

Platforms and Advertising Policies

As mentioned, this research has raised significant questions as to the accuracy and consistency with which Facebook applies its advertising policies. A similar issue was noted in InfluenceMap's October 2020 report on *climate science disinformation ads*. This research can be used to ask how Facebook applies its advertising policies. Beyond this, this research can also be used to ask whether social media platforms' advertising policies are fit for purpose. Facebook, Twitter, and Alphabet have all publicly supported to limiting global warming to 1.5C in line with the recommendations of the Intergovernmental Panel on Climate Change. This research found over 25,000 ads from just the 25 entities in 2020, which promoted either the climate-friendliness of the oil and gas industry or promoted the continued use of oil and gas in the energy mix. Facebook received over \$9 million for just these ads - the real revenue Facebook received from the entire industry is likely to be significantly higher. Due to a lack of transparency from Twitter and Alphabet, the same calculations cannot be made. This research can be used to ask whether platform's continued allowance of ads from fossil fuel companies promoting a continued role for fossil fuels, is aligned with the platforms' support of climate science and for action on climate change.

The Oil & Gas Sector and Advertising

This question connects to a wider issue currently being discussed more broadly. Many countries, including the US, have committed to reach net-zero emissions by 2050 in the interest of limiting global warming. According to the IPCC and the IEA, the use of fossil fuels, including oil and gas, drastically needs to reduce in order to limit global warming to 1.5C. This research speaks to the oil and gas industry's sustained campaign to promote oil and gas, which runs counter to the needed solutions to climate change as stated by the IPCC

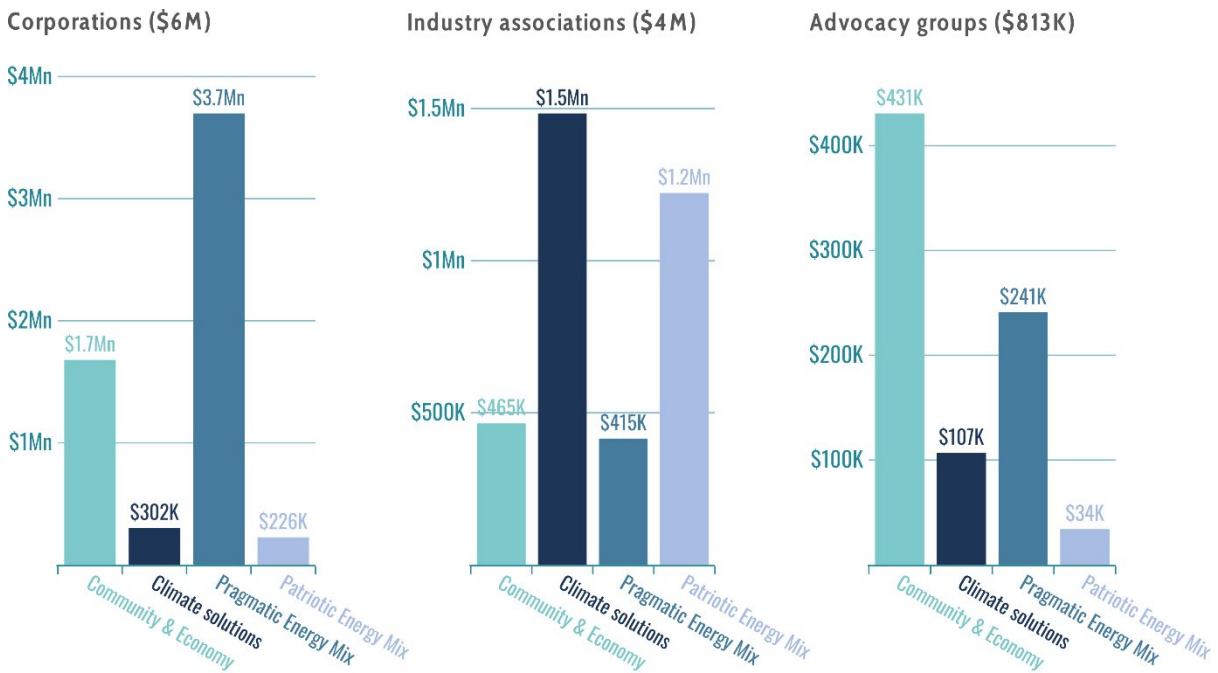
and the IEA. The results of this research can be used by investors, policy makers and civil society groups concerned with facilitating action on climate change and determining how ads promoting fossil fuels align with these ambitions.

Analysis of the Data

Distribution of Messaging by Entity Type

Analyzing the messaging categories for different entities, the evidence indicates different groups are fulfilling different messaging roles.

Distribution of Messaging Categories by Entity Type

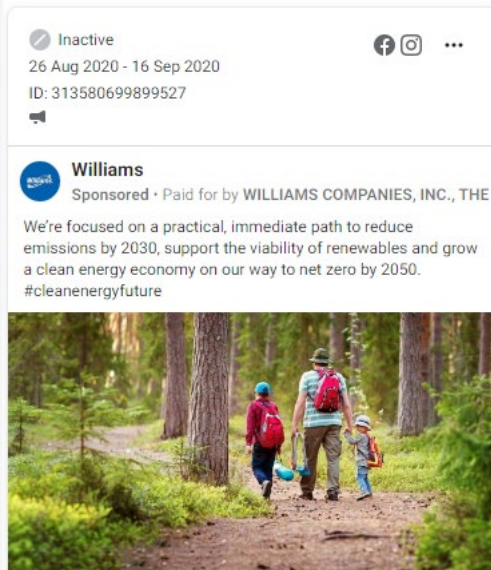
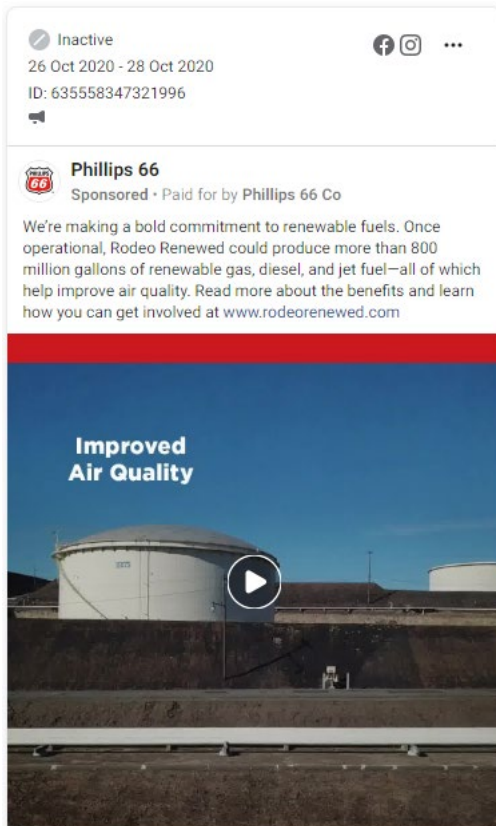


The high spend on 'Pragmatic Energy Mix' narratives comes from corporations, which is the highest spending group in the study. Looking further into the makeup of this corporation group, the research demonstrates that this pattern largely reflects the spending of ExxonMobil. As stated previously, ExxonMobil was the largest oil and gas spender on social issues, election and political ads on Facebook's US platforms in 2020, accounting for 52.5% of the overall spend from the ads included in this study.

Interestingly, the spend on ads containing 'Climate Solutions' narratives is significantly lower from corporations, and correspondingly, from ExxonMobil. One reason for this could be the increasing scrutiny under which companies including ExxonMobil have found themselves in recent years for their use of misleading messages which portray the company as 'climate-friendly'.

Nonetheless, ads containing 'Climate solutions' narratives are still being distributed and seen by millions of people - over 122 million people saw just the 'Climate solutions' ads covered in this study. These ads are being predominately distributed by industry associations. Looking within the industry association category, the research shows these ads are largely being pushed out by the *American Petroleum Institute*. The American Petroleum Institute spent \$1.39M on 9531 'Climate solutions' ads in 2020 on Facebook's US platforms, which generated over 80.9M impressions. 'Climate solutions' ads were also still popular amongst

specific companies, for instance, 64% of *The Williams Companies'* - a midstream oil and gas company - ads contained 'Climate solutions' messaging, as did all three of the ads posted by *Phillips66*.



Increasing scrutiny of fossil fuel advertising

Oil and gas industry ads promoting the climate-friendly ventures of companies have increasingly come under legal and political scrutiny. In 2019, ClientEarth filed a complaint with the Organization for Economic Cooperation and Development (OECD) against BP for deceptive advertising regarding its investments into renewables and *promotion of gas* as essential for human development, while Equinor was issued *a warning* by the UK Advertising Standards Authority. In 2020, the UK ASA *investigated* Shell's 'drive carbon neutral' campaign, with another *complaint* filed against the company for misleading advertising in the Netherlands in 2021. Chevron too currently faces *a complaint* over misleading advertising in the US. Meanwhile ExxonMobil has been sued in *Massachusetts in 2019, Washington D.C in 2020*, and by *New York City in 2021*, for deceptive advertising. There are now several *campaigns* globally to end fossil fuel advertising, including in France, the Netherlands, Canada, the UK, and Sweden. This increased scrutiny could suggest a reason as to this division of messaging strategies between companies and their industry associations on social media. In the US, there is also a *petition* to end fossil fuel advertising on social media platforms.

The remaining industry associations focused on different narrative categories: *American Gas Association*, which claims its members generate over 95% of the fossil gas used by residential, commercial, and industry users, had 'pragmatic' narratives in 76% of its ads, promulgating fossil gas as affordable, reliable, and efficient. *Consumer Energy Alliance*, a group representing fossil fuel interests that is active in *opposing climate policy*, also prioritized pragmatic narratives, while *Texas Oil and Gas Association*, a regional industry association representing the Texan oil and gas industry, had a fairly even distribution between all the messaging categories. This suggests industry associations are tailoring their messaging for their specific audiences. Another notable narrative in this group was 'Patriotic Energy Mix' messaging, which promotes the benefits of domestic (national or regional) oil and gas production to energy independence, energy leadership and local identities. This narrative was used more so by the industry associations representing specific regions: Texas Oil and Gas Association and New Mexico Oil and Gas Association.

The high number of ads containing 'Climate Solutions' narratives appears to be the result of different strategies for posting ads. For instance, ExxonMobil has an average spend of \$1567 per ad across 3216 ads, while the American Petroleum Institute had an average spend of just \$196 per ad but over 15,092 ads, over 9000 of which contained 'Climate solutions' narratives.

Finally, advocacy groups appeared to prioritize messaging promoting the economic benefits of the industry to national and local communities. This messaging type was often used in conjunction with ads lobbying specific legislative or regulatory measures

Advocacy Groups & Policy Advertising:



InfluenceMap identified ads that were about specific legislative or regulatory measures and elections as 'Policy Ads'. 7.5% of the total sample (1874 individual ads) were policy ads. Policy ads, however, were used far more as a proportion of overall advertising by advocacy groups (42% in number of ads), compared to just 6% of company ads and 5% of industry association ads. While policy ads made up a small percentage of the ads overall in this sample, their use appears to be highly targeted and a vital tool for influencing key political battles, particularly by advocacy groups

Case Study: ONEALASKA – Vote No on 1

OneAlaska was an advocacy group formed to oppose Ballot Measure 1, which would have increased taxes on oil and gas companies. The ballot initiative would have increased taxes on certain oil production fields and overturn Senate Bill 21 (2013), which significantly reduced taxes on oil production. OneAlaska received *\$20.94 million* in contributions, with five oil and gas companies providing 94% of the campaign's funds – ExxonMobil (\$5.82 million), ConocoPhillips (\$4.84 million), BP Exploration Alaska (\$4.54 million), Hilcorp Energy (\$2.90 million), and Hilcorp North Slope (\$1.54 million). The campaign supporting the ballot initiative, Vote Yes for Alaska's Fair Share – received \$1.66 million in contributions.

InfluenceMap found 480 ads paid for by the advocacy group OneAlaska in 2020. All of these ads were about Ballot Measure 1 in Alaska and hence were labelled as policy ads by InfluenceMap. 396 of the ads

(83%) had messaging promoting the role of the oil and gas industry as a job provider, while 368 (77%) of the ads promoted the economic benefits (typically through tax revenue or indirect spending) to the local community and economy of the oil and gas industry. This indicates the importance of messaging designed to gain social license from local communities and policymakers, to then play a key role in influencing policy decisions.

| | |
|---|--|
| <p>Inactive 22 Jun 2020 - 6 Jul 2020 ID: 615516165985274</p> | <p>Inactive 18 Sep 2020 - 20 Sep 2020 ID: 987850408304910</p> |
| <p>OneALASKA Sponsored • Paid for by OneAlaska</p> <p>"A stable oil industry supporting local jobs and businesses is vital, especially today." That's why Captain Bob Candopolous of Saltwater Safari is going to Vote No on One.</p>  | <p>OneALASKA Sponsored • Paid for by OneAlaska</p> <p>Instead of helping families, jobs and small businesses, Ballot Measure 1 will give politicians a blank check with no guarantee of results. It's the wrong plan at the wrong time.</p>  |

The social media campaign run by OneAlaska was substantial. The social media campaign appears to have run from March to October 2020. The 480 ads identified from OneAlaska ran near exclusively in Alaska* and cumulatively had over 23M impressions. This equates to 42 impressions for every Alaskan over the age of 18 in a 6- month span. This is enough impressions for every adult Alaskan to see a Facebook ad opposing Ballot Measure 1 once every 6 days in the run up to the vote. The campaign against Ballot Measure 1 was successful. **57.9%** of voters voted against Ballot Measure 1 on November 3rd, 2020.

*A few ads had a negligible percent (<1%) of impressions in states outside of Alaska.

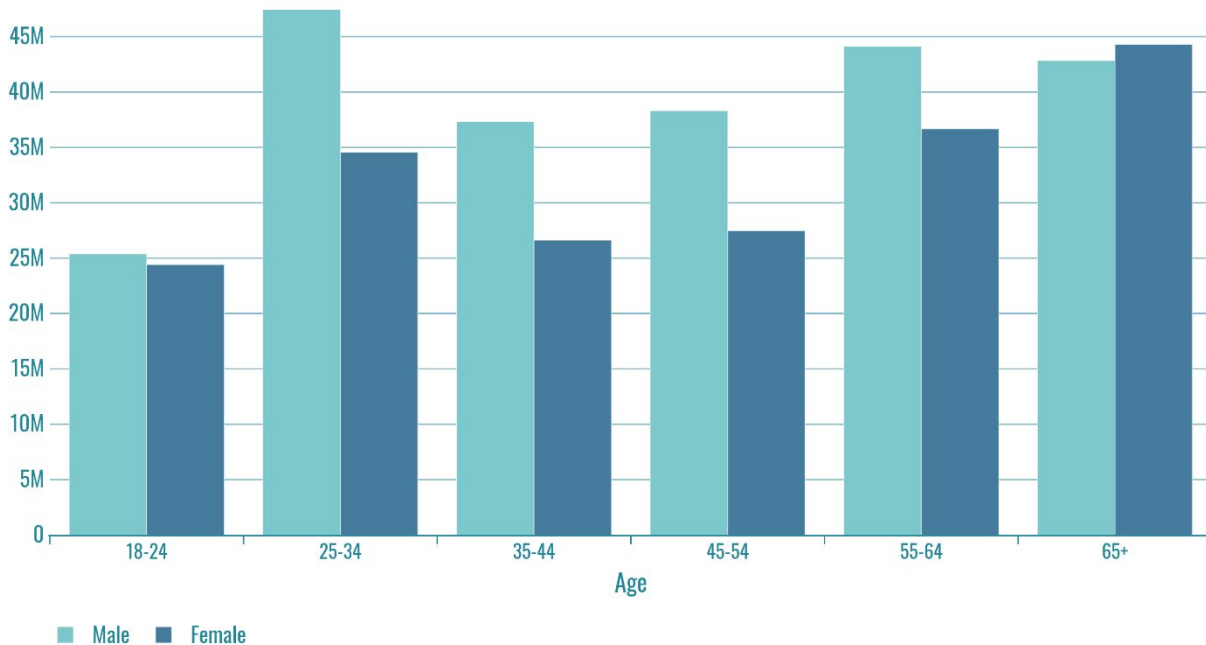
Messaging Distribution by Age and Gender

Facebook enables its customers to target ads using information including age, gender, location, connections, behavior, education, and interests. Using data obtained via Facebook’s Ad Library API (application programming interface), InfluenceMap has further analyzed the distribution of the messaging categories.

The graph below shows that more males than females saw the ads across every age group, except for 65+ which had slightly more females than males. The largest gap between male and female views was found within the 25-34 year-old category. The anomalous increase in the number of views by males aged between 25-34 parallels a finding from InfluenceMap’s October *2020 Climate Science Disinformation report*, which also found an uptick in views from males aged between 25-34 that surpassed the graph’s trend line. This suggests males between 25-34 might be being targeted by both the oil and gas industry and by those distributing climate science disinformation.

However, there were differences in the views across different messaging categories. ‘Climate Solutions’ was the only category that has more female views than male views. However, the age distribution of ‘Climate Solutions’ ads resembled that of all oil and gas industry ads above, while the age distribution of ‘Pragmatic Energy Mix’ ads was markedly different, with a significantly older age skew for both males and females. These graphs can be found in Appendix E.

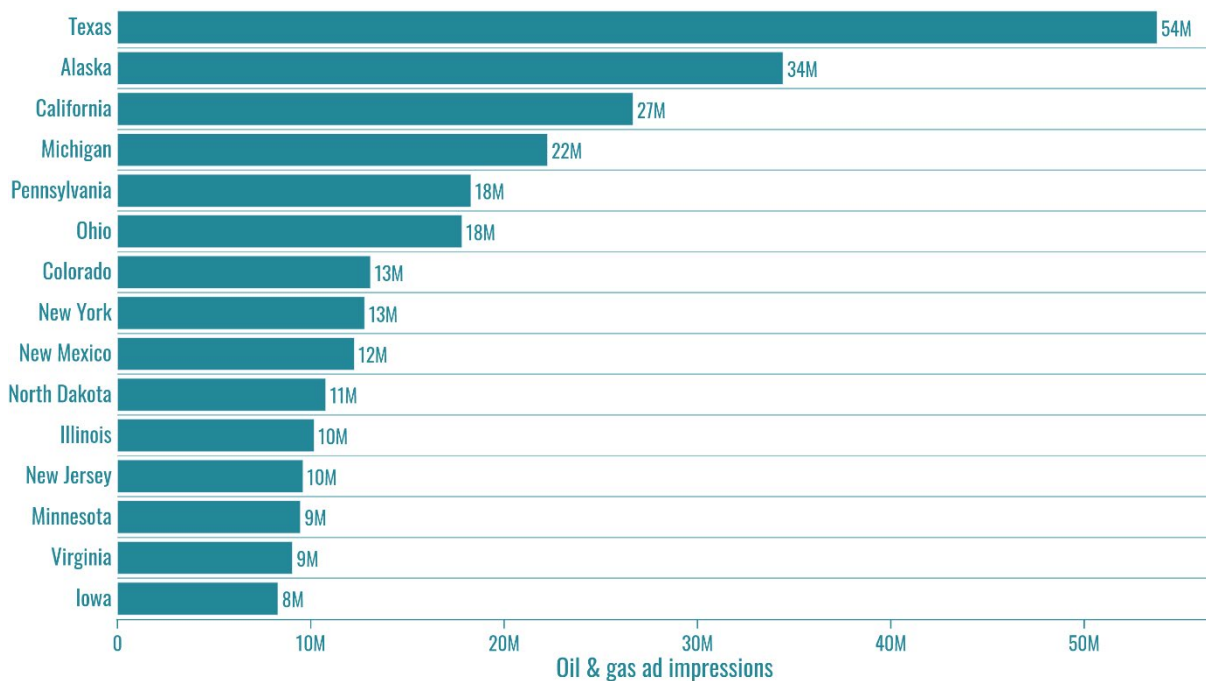
Gender and Age Distribution of all Fossil Fuel Ads Analyzed by Impressions



Messaging Distribution by State

A common trend in the messaging distribution of ads between U.S. states was that states with high levels of oil and gas production also had high levels of oil and gas industry advertising in 2020. According to the U.S. *Energy Information Administration*, the top seven states in crude oil production in 2020 were Texas, North Dakota, New Mexico, Oklahoma, Colorado, Alaska, and California, all of which (with the exception of Oklahoma) ranked in the top 10 states of ad impressions on Facebook. Texas had the most ad impressions at 54M, followed by Alaska by 34M. In addition to those oil-producing states, Pennsylvania (which ranked *second in the U.S. in natural gas production* behind Texas in 2019) had the fifth most ad impressions at approximately 18 million. It is also notable that many swing states ranked highly in the top states by ad impressions, including Michigan, Pennsylvania, Ohio, Iowa, and Minnesota.

Top 15 States by Impressions

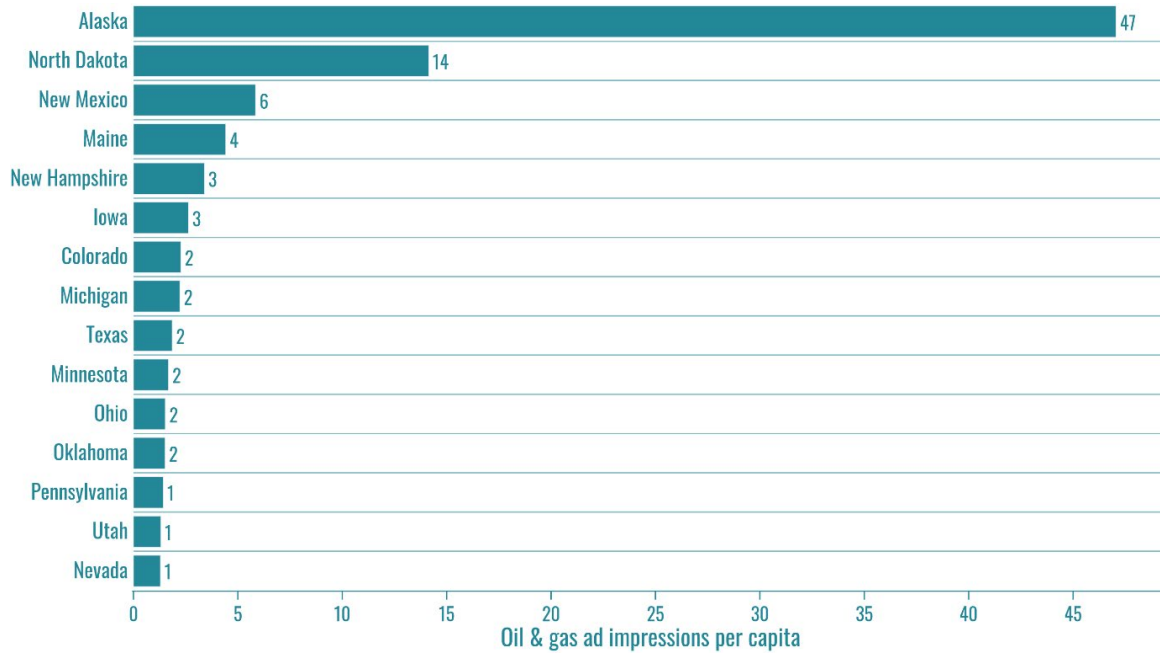


When analyzing the data further to see which groups were responsible for generating the most impressions, a breakdown of the top oil and gas entities by impressions in Texas illustrates a common pattern found in many states, which is that the American Petroleum Institute and ExxonMobil are heavy spenders, while interest groups specific to individual states show up as big spenders within their states. In Texas, the American Petroleum Institute and ExxonMobil spent \$422,000 and \$585,000 ad impressions in 2020, but the Texas Oil & Gas Association and Texans for Natural Gas also had significant spending. This graph can be found in Appendix F.

Additionally, when ad impressions are calculated on a per person basis, it becomes evident that the state of Alaska received a disproportionate amount of oil and gas ads compared to the rest of the U.S in 2020. The

average Alaskan had around 47 ad impressions on Facebook during the year, while the next highest amount was in North Dakota, which had 14 impressions per person. This is likely due to the outsize level of spending by the OneAlaska advocacy group (see above section on Policy Advertising), which accounted for 72% of the oil and gas ad impressions in Alaska in 2020 tracked by InfluenceMap.

Top 15 Regions by Impressions per Capita



Appendices

Appendix A: List of entities included in research

| Type | Entity | Spend on Social issue, Election, and Politics Ads in 2020 |
|----------------------|---|---|
| Corporation | ExxonMobil | \$5,040,642 |
| Corporation | The Williams Companies | \$252,977 |
| Corporation | ConocoPhillips (including Power in Cooperation) | \$76,938 |
| Corporation | Energy Transfer | \$56,805 |
| Corporation | BP | \$51,652 |
| Corporation | Wink to Webster Pipeline LLC (Joint Venture between ExxonMobil and additional corporations) | \$53,027 |
| Corporation | Enbridge | \$64,345 |
| Corporation | Ho'ala (ads run under Texaco in Hawaii) | \$7,042 |
| Corporation | Phillips 66 | \$5,248 |
| Corporation | Noble Energy (acquired by Chevron in Oct 2020) | \$10,485 |
| Industry Association | American Petroleum Institute | \$2,965,254 |
| Industry Association | Texas Oil & Gas Association | \$160,511 |
| Industry Association | New Mexico Oil and Gas Association | \$41,614 |
| Industry Association | American Gas Association | \$22,248 |
| Advocacy Group | OneAlaska | \$329,684 |
| Advocacy Group | Texans for Natural Gas | \$53,353 |
| Advocacy Group | Partnership for Energy Progress | \$75,691 |
| Advocacy Group | Coloradans for Responsible Energy Development | \$57,983 |
| Advocacy Group | Californians for Energy Independence | \$29,457 |
| Advocacy Group | Alliance for Michigan Power | \$11,528 |
| Advocacy Group | American Energy Alliance | \$8,396 |
| Advocacy Group | Great Lakes. Michigan Jobs | \$53,145 |
| Advocacy Group | Californians for Affordable and Reliable Energy | \$13,693 |

Advocacy Groups and Astroturfing on Social Media

Concern has been raised over the use of Facebook advertising for “astroturfing”. This is a phenomenon where groups look as if they represent the interests of the citizens of a certain state yet are backed by other interests. Loopholes in Facebook’s disclosure platform has been pointed to as enabling companies to obscure their backing of political advertising.

InfluenceMap’s research has uncovered various examples of groups that give the impression of being citizen-run while promoting views and policy positions reflecting the oil and gas sector. Within the Facebook adverts, the funders are generally only disclosed as the groups responsible for the Facebook pages for which the adverts are bought, with no further information on who ultimately control these groups. It is only through further research the oil company support or backing of these groups can be discovered.

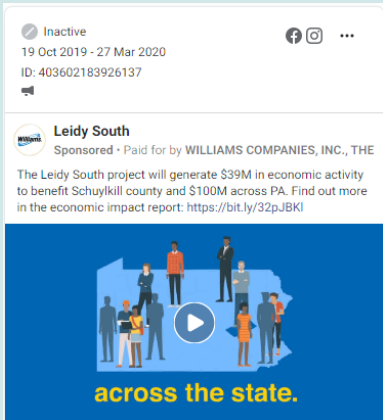
The research identified 19 advocacy groups that spent over \$5000 on Facebook ads in 2020. 10 of these appear to have industry links. These were:



| State | Advocacy Group | Details |
|------------|---|--|
| Alaska | OneAlaska | <i>Top three contributors are Exxon, BP, and ConocoPhillips</i> |
| California | Californians for Affordable and Reliable Energy | <i>Members include Western States Petroleum Association, California Independent Oil Marketers Association, and California Business Roundtable</i> |
| California | Californians for Energy Independence | According to a report by the Natural Resources Defense Council, the group was initially a coalition between <i>Western States Petroleum Association and California Independent Petroleum Association, amongst others.</i> |
| Colorado | Coloradans for Responsible Energy Development | <i>Membership includes Occidental Petroleum and Chevron</i> |
| Michigan | Alliance for Michigan Power | According to the Energy and Policy Institute, the group has connections to <i>DTE Energy. A spokesperson from DTE Energy said the utility was part of the Alliance for Michigan Power and its employees serve in an advisory capacity on the organization's board.</i> |
| Michigan | Great Lakes. Michigan Jobs | <i>Membership includes the American Petroleum Institute</i> |
| Ohio | Ohio Oil and Gas Energy Education Program | <i>Board includes Equinor and XTO Energy</i> |
| Texas | Texans for Natural Gas | A self-disclosed <i>campaign</i> managed by Texas Independent Producers and Royalty Owners Association, on the <i>board</i> of which sits representatives from Anderson Oil, EOG Resources, and Occidental Petroleum Corp. amongst others. |

| | | |
|-------------------|---------------------------------|--|
| Pacific Northwest | Partnership For Energy Progress | <i>Partners include Enbridge, Williams, Western States Petroleum Association, and more</i> |
| National | American Energy Alliance | According to Desmog, American Energy Alliance <i>has or had Koch Industries ties</i> . The AEA and its parent organization, the Institute for Energy Research was run by Tom Pyle, a former lobbyist for Koch Industries, with another lobbyist for Koch Industries listed as a Director on AEA's 2014 990 tax return. Unclear whether Tom Pyle still runs the American Energy Alliance. |

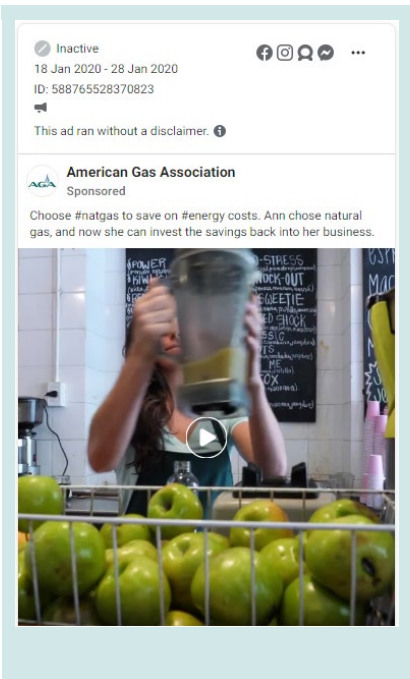
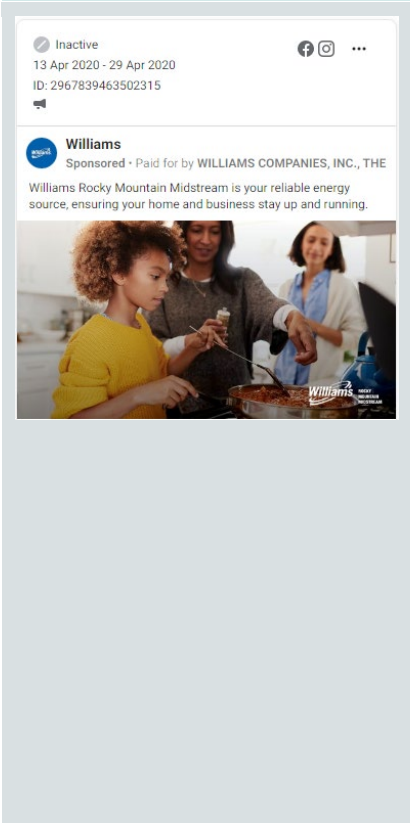
Appendix B: Coding Typology

Where individual ads contain multiple narratives belonging to different subcategories, all are coded. Where the typology refers to oil and gas, oil and gas infrastructure can also be substituted in.


| Category | Key Narratives included in category | Explanation | Example |
|---------------------|-------------------------------------|--|---|
| Community & Economy | Entity/Industry helps the economy | This includes statements claiming or suggesting the entity/industry: contributes to national or local GDP; helps local communities or society more broadly through the use of tax revenues collected from the industry; helps local businesses through indirect spending generated via the presence of the industry. Also included in this subcategory are statements claiming or suggesting the corresponding negative impacts, including that without the entity/industry: the economy would suffer; local communities would suffer due to the loss of tax revenue; local business would suffer due to the lack of indirect spending |  <p>Inactive 19 Oct 2019 - 27 Mar 2020 ID: 403602183926137</p> <p>Leidy South Sponsored · Paid for by WILLIAMS COMPANIES, INC., THE</p> <p>The Leidy South project will generate \$39M in economic activity to benefit Schuylkill county and \$100M across PA. Find out more in the economic impact report: https://bit.ly/32pJBKI</p> <p>across the state.</p> |

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| | <p>Entity/Industry provides jobs</p> | <p>This includes statements claiming or suggesting the entity/industry: provides jobs; provides jobs paying high wages. Also included in this subcategory are statements claiming or suggesting the corresponding negative impacts, including that without the entity/industry: there would be job losses; jobs would be at threat; jobs would be lower paid.</p> |  |
| | <p>Entity/Industry helps community through philanthropic efforts</p> | <p>This includes statements claiming or suggesting the entity/industry: is participating in voluntary efforts (non-climate related); donating money or resources. Also included in this subcategory are statements claiming or suggesting the corresponding negative impacts, including that without the entity/industry: there would be less philanthropy or less relief provided by philanthropic efforts.</p> |  |

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| <p>Climate Solutions</p> | <p>Entity/Industry supports reducing greenhouse gas emissions</p> | <p>This includes statements claiming or suggesting that the entity/industry: is engaging in efforts internally to reduce greenhouse gas emissions; is supporting efforts external to the company to reduce greenhouse gas emissions; or supporting internal or external efforts to develop technologies and/or processes to reduce greenhouse gas emissions. Technologies and processes to reduce greenhouse gas emissions included in this section include CC(U)S, offsetting through nature-based solutions, energy efficiency, and emissions reduction targets.</p> | |
| | <p>Entity/Industry supporting transitioning the energy mix</p> | <p>This includes statements claiming or suggesting that the entity/industry is: engaging in efforts internally or externally to transition the energy mix away from fossil fuels and towards renewables; supporting efforts externally to transition the energy mix away from fossil fuels and towards renewables. Activities included in transitioning the energy mix that are included in this section include renewable energies and electric vehicles.</p> | |
| | <p>Entity/Industry supports the use of fossil gas as, a clean/green/low-carbon energy source or is promoting fossil gas as a clean/green/low-carbon energy source.</p> | <p>This includes statements claiming or suggesting that fossil gas is a clean/green/low carbon energy source. It also includes statements supporting or suggesting support for a long-term role for fossil gas in the energy mix. This include statements such as 'natural gas is the perfect partner to renewables', 'natural gas is part of the solution on climate change'. 'thanks to natural gas, emissions have reduced X%'.</p> | |

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| <p>Pragmatic Energy Mix</p> | <p>Oil & gas are affordable energy sources</p> | <p>This includes statements claiming oil and gas are affordable energy sources. A variation of the word affordable must be included in these statements. These include affordable, affordability, low-cost, cost saving, money saving, cheap(er), etc. Also included in this subcategory are statements claiming or suggesting the corresponding negative impacts, including that: without oil and gas energy would be expensive or unaffordable; policies reducing the use of oil and gas would make energy expensive or unaffordable.</p> |  <p>The screenshot shows a Facebook ad from the American Gas Association (AGA), dated 18 Jan 2020. The ad features a video of a woman in a kitchen holding a glass of green juice. The text of the ad reads: "Choose #natgas to save on #energy costs. Ann chose natural gas, and now she can invest the savings back into her business."</p> |
| | <p>Oil & gas are reliable sources</p> | <p>This includes statements claiming oil and gas are reliable energy sources. In most instances, these ads contain either the word reliable or a variation of it. There is scope, however, to include ads that do not mention the word reliable if they suggest oil and gas are reliable energy sources or critical for the provision of reliable energy. For example, statements such as 'Oil and gas will keep the lights on <i>no matter what</i>.' can be included in this subcategory.' If the ad, however, better fits one of the statements in P3, then the ad is categorized under P3. Also included in this subcategory are statements claiming or suggesting the corresponding negative impacts, including that: without oil and gas energy would be unreliable; policies reducing the use of oil and gas would make energy unreliable.</p> |  <p>The screenshot shows a Facebook ad from Williams, dated 13 Apr 2020. The ad features a video of a family (a woman, a man, and a child) in a kitchen. The text of the ad reads: "Williams Rocky Mountain Midstream is your reliable energy source, ensuring your home and business stay up and running."</p> |

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| | <p>Other narratives promoting the benefits and/or uses of using oil and gas</p> | <p>This includes statements claiming or suggesting various benefits or qualities about oil and gas. These include: oil & gas is safe; oil & gas powers our lives; oil & gas is efficient; oil & gas meets our essential energy needs; oil & gas is resilient; oil & gas is abundant; oil & gas is secure. This subcategory also includes statements claiming oil and gas is used as a raw material to produce material, non-power related, goods. For example, toothbrushes, PPE, petrol. Also included in this subcategory are statements claiming or suggesting the corresponding negative impacts on people's lives and use of energy.</p> | |
| <p>Patriotic Energy Mix</p> | <p>Energy Independence</p> | <p>This includes statements claiming or suggesting the domestic (national or regional) entity/industry or development of the domestic industry increases energy independence and/or improves national security. Also included in this subcategory are statements claiming or suggesting the corresponding negative impacts including without a domestic industry, foreign interference and/or dependence on foreign entities will increase. In these statements dependence on foreign entities must be framed as a – or having a – negative consequence.</p> | |
| | <p>Energy Leadership</p> | <p>This includes statements claiming or suggesting the domestic (national or regional) entity/industry contributes to energy leadership (national or regionally). This includes the following statements: The industry has achieved record-high/record-breaking oil and gas production; the US is leading in oil and/or gas production; oil & gas produced in the US (or a US region) is world-leading (often claimed to be due to strict environmental standards); the US is an energy-leader. Also included in this subcategory are the corresponding negative statements including that a</p> | |

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| | | <p>reduction in US energy leadership would be negative and that without US oil and gas the world would be forced to use dirtier/more emissions intensive oil and gas.</p> | |
| | <p>Other</p> | <p>This subcategory includes statements that speak to patriotism and sovereignty but are not included in S1 or S2. Examples of statements included here include 'Stand up for American Energy', and statements that ties the production/consumption of oil and gas to regional/national identities.</p> | <div data-bbox="1002 443 1391 922"> <p>Inactive 21 Dec 2019 - 23 Mar 2020 ID: 473289916724099</p> <hr/> <p>TXOGA Texas Oil and Gas Association Sponsored • Paid for by Texas Oil & Gas Association</p> <p>The story of Texas is one of grit, guts, and glory - and the same can be said about the industry that has defined the Lone Star State: oil and natural gas.</p> <p>Learn more about the new "Texas Oil and Gas" exhibit at the Bullock Texas State History Museum.</p>  </div> |

Appendix C: Sources challenging the use of fossil gas as a climate solution

- A study published in 2020 (*'Preindustrial 14CH4 indicates greater anthropogenic fossil CH4 emissions'*, Hmiel et al, February 2020) published in the academic journal *Nature*, which indicates the methane impacts of fossil fuel extraction have been underestimated by up to 40% and finds that the methane in today's atmosphere is most likely attributable to industry.
- A study published in 2020 (*'Methane emissions from fossil fuels: exploring recent changes in greenhouse-gas reporting requirements for the State of New York'*, Robert Howarth, June 2020) in the academic journal, *Journal of Integrative Environmental Sciences*, found that while according to the national inventory, carbon dioxide emissions had declined by 15% since 1990 due to an 88% decrease in coal consumption, frequently accredited to the switch to using gas, methane emissions increased by almost 30% between 1990 and 2015, largely due to the increased consumption of natural gas. Factoring in methane emissions, total GHG emissions in the US remained 'virtually unchanged' from 1990 to 2015.
- A study published in 2019 (*'Ideas and Perspectives: is shale gas a major driver of recent increase in global atmospheric methane'*, Robert Howarth, August 2019) published in the academic journal *Biogeosciences*, which concludes that shale gas production in North America over the past decade may have contributed more than half of all of the increased emissions from fossil fuels globally and approximately one third of the total increased emissions from all sources globally over the past decade.
- A study published in 2018 (*'Assessment of methane emissions from the U.S. oil and gas supply chain'*, Alvarez et al., July 2018) in the academic journal, *Science*, found that in 2015, methane emissions from the oil and gas supply chain were ~60% higher than the US EPA inventory estimated.
- A *study* organized by the *Environmental Defense Fund* in 2018 and co-authored by more than 140 research and industry experts, also found that between 2012 and 2018, methane leaks were 60% higher than the US EPA estimated, which is enough gas to fuel 10 million homes for a year.
- A study published in 2015 (*'Assessing carbon lock-in'*, Erickson et al., August 2015) found that carbon lock-in, which refers to the tendency for certain carbon-intensive technological systems to persist over time and thereby 'locking out' lower-carbon alternatives, was greatest for coal power plants, gas power plants, and oil-based vehicles.

Appendix D: Examples of Chevron ads running on Facebook as of July 9th 2021*

Active
Started running on 8 Jul 2021
ID: 325681585900304
This ad has multiple versions. ⓘ

Chevron
Sponsored

Look out for Chevron Renewable Diesel blends in California and learn about this innovative source of renewable energy at chevron.co/ChevronRenewableDiesel.



made primarily from
renewable sources

Active
Started running on 1 Jul 2021
ID: 778359359509685
This ad has multiple versions. ⓘ

Chevron
Sponsored

It's only human to want to be part of the solution. That's what Joy believes.

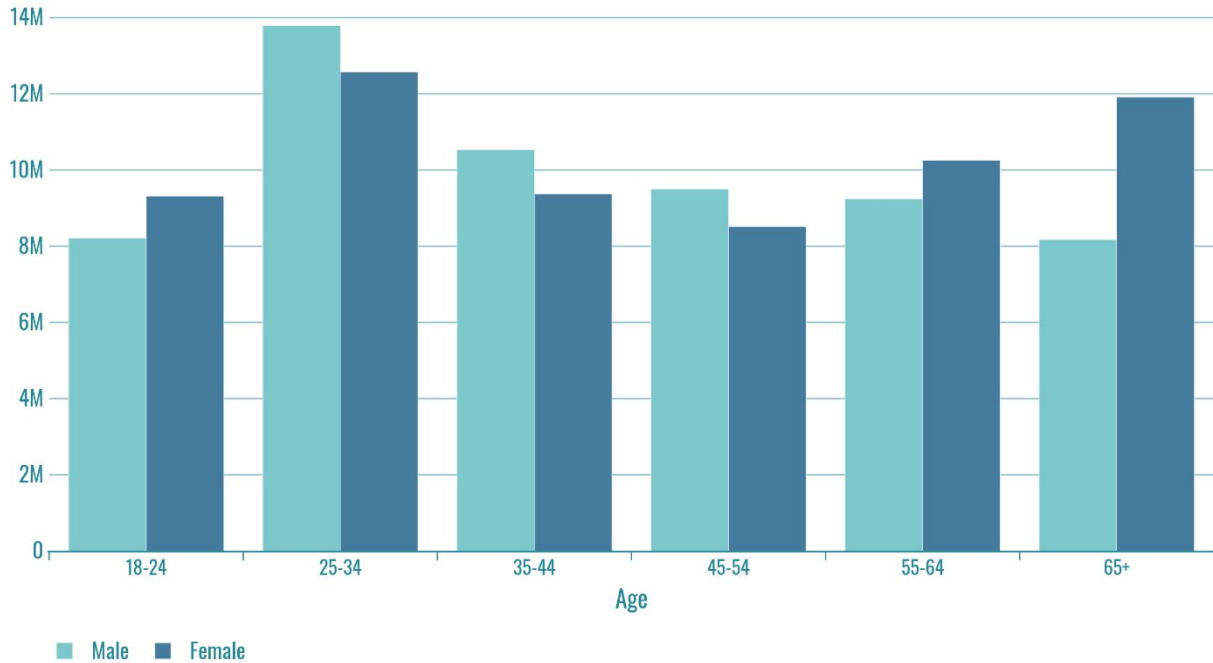


can actually help to create
a lower-carbon future.

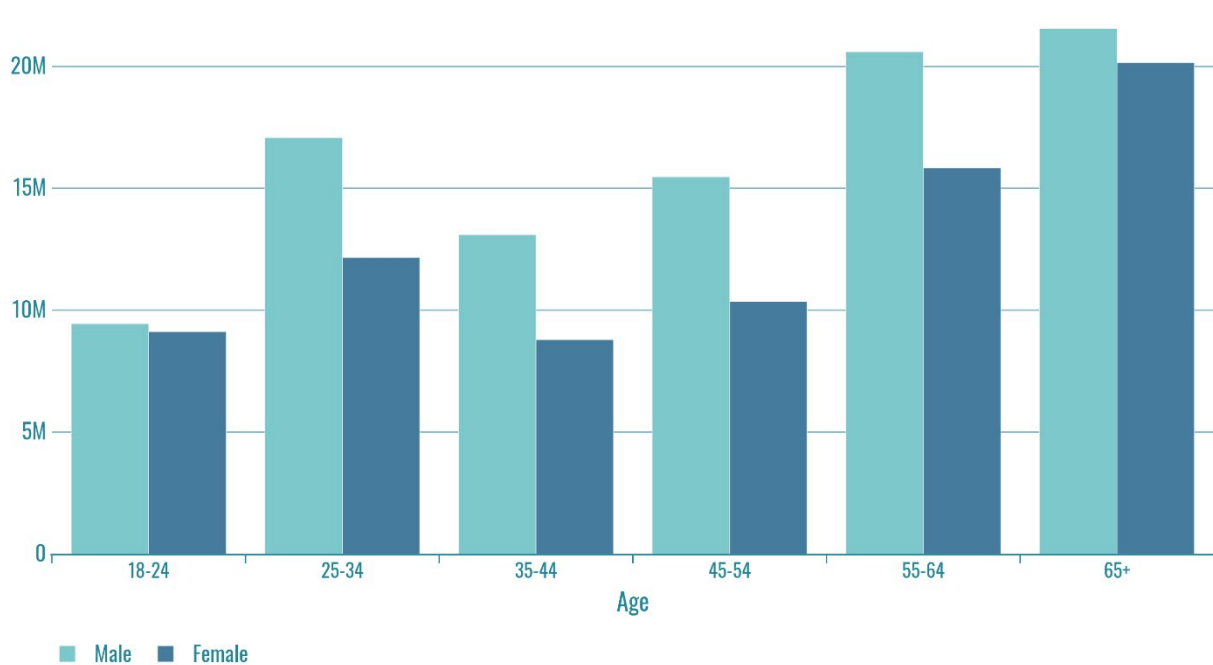
*As of 27th July 2021, both these ads had been removed from the ad library.

Appendix E: Graphs for gender and age distribution

Gender and Age Distribution of Climate Solution Ads by Impressions



Gender and Age Distribution of Pragmatic Energy Mix Ads by Impressions



Appendix F: Top advertisers in Texas

Top Advertisers in Texas by Spend

