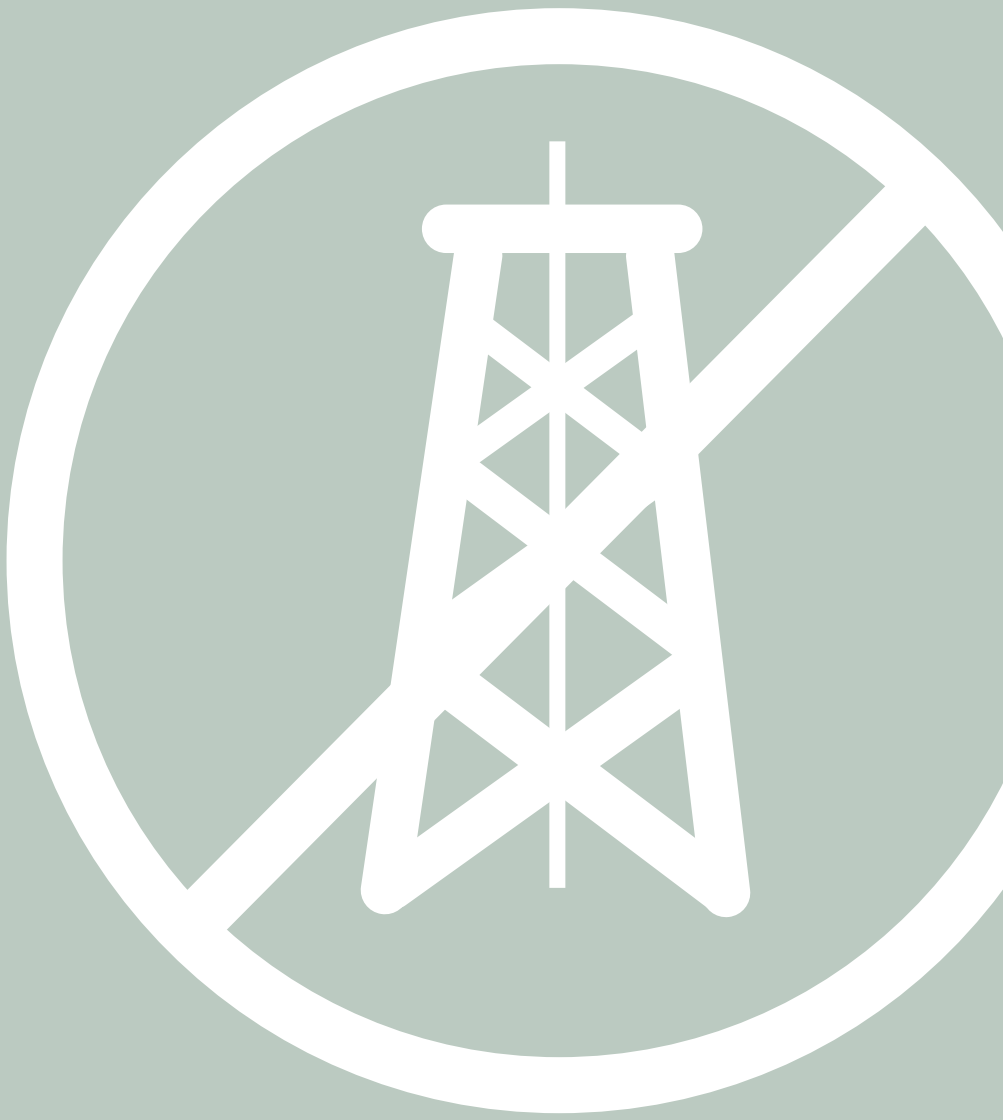
Briefing: Weald Action Group

Why we don't need more onshore oil in the UK

Countering misinformation from the oil industry

WEALD ACTION GROUP



> "This excellent report shows that new onshore oil wells in the UK are economically unnecessary as well as being environmentally at odds with the government's climate rhetoric."

Professor Paul Ekins, Professor of Resources and Environmental Policy, University College London

Contents

This briefing was written on behalf of the Weald Action Group, an umbrella group for local groups campaigning against all forms of extreme extraction of oil and gas across the Weald and Isle of Wight in the South East of England.

wealdactiongroup.org.uk
info@wealdactiongroup.org.uk

1. Introduction

We are in the midst of a climate and ecological emergency. At only 1.1°C of global warming we are already beginning to see the impacts of the looming crisis through more extreme weather, rising sea levels and shrinking Arctic sea ice.[1] The heatwave in Siberia in the first six months of 2020 broke temperature records[2] and is one of many reminders that the climate is rapidly changing. At the time of writing the wildfires in the west of the United States have already burned over 5 million acres in California, Oregon and Washington state,[3] and the smoke has even reached New York on the East Coast some 3,000 miles away.[4] Although the impacts of climate change will affect us all in many cases, they will hit the poorest first and hardest.[5]

Climate change, along with changes to land and sea use, wildlife trade, pollution and invasive species, is also a key driver of nature loss. Around 1 million plant and animal species are now threatened with extinction, several within decades, if we do not change our ways.[6]

The burning of fossil fuels is a major source of the greenhouse gas emissions which are causing climate change. Research has found that carbon dioxide from the oil, gas and coal in already-operating fields and mines globally will push the world far beyond 1.5°C of warming, the temperature rise above which leading climate scientists warn of catastrophic climate events.[7]

In addition, a study published in the journal *Nature* in February 2020 concluded that current estimates of methane emissions from fossil fuels have been underestimated by 25-40%.[8] Methane is a highly potent greenhouse gas that has 85 times the warming potential of carbon dioxide over a twenty-year period.[9] A number of onshore oil sites in the UK vent methane directly into the air.[10] Even if this methane is flared it also escapes at other stages in the oil recovery process. This adds to the already irrefutable evidence for the need to rapidly and drastically reduce emissions from fossil fuels.

In the UK, the Climate Change Act 2008, amended in 2019, commits us to achieving net-zero emissions of greenhouse gases by 2050.[11] Some scientists say that 2050 is not soon enough, and that in order to not exceed its fair share of a global carbon budget which would allow the world an estimated 66% chance of limiting climate warming to 1.5°C, the UK target for net-zero should be 2030 or earlier.[12] Despite this companies are still applying for and receiving planning and regulatory permissions for new onshore oil and gas wells (see box overleaf).

Indeed, South East England is facing a dash for unconventional 'tight oil' buried deep in the Kimmeridge limestone.[13] This is not only in conflict with commitments to rapidly reduce emissions but could put close to 177,000 acres of protected landscapes and habitats at risk.[14] In 2016 a forecast commissioned by UK Oil & Gas PLC (UKOG), a company that has a keen interest in the Kimmeridge, controversially claimed that if exploited this oil could generate billions for the UK economy over 40 years of production.[15] Crucially though, the production scenarios on which these figures were based would (given the unconventional nature of the oil and the rapidity with which oil flow rates reduce) reportedly require the drilling of around 2,400 wells from at least 100 sites across the region.[16] This would represent a phenomenal scaling up from the fewer than 200 wells in existence today, posing an unacceptable threat to the climate, wildlife, countryside and local communities.

Oil companies are increasingly out of step with public opinion. In September 2020, the Citizens Assembly, a randomly selected and representative group of 108 UK citizens, published its report on how the country should reach net-zero emissions by 2050. 89% of Assembly members agreed or strongly agreed that the Government should move away from fossil fuels.[17]

Recent oil drilling applications and approvals in South East England include:

- In 2019 UKOG subsidiary Horse Hill Developments Limited received planning permission to drill four more oil wells at its flagship fossil fuel site at Horse Hill in Horley, Surrey, and for 20 years of production. [18]
- At the time of writing, a decision on a planning application for oil drilling by UKOG at Arreton on the Isle of Wight is pending. [19]
- A two-year extension has recently been approved for UKOG's oil site at Broadford Bridge, Billingshurst, in West Sussex. [20]
- UKOG also holds the licence covering the controversial Leith Hill site in Surrey and says it plans to drill in that area. [21]
- UKOG's application to drill for oil and gas in Dunsfold, Surrey, which was turned down in June 2020, is due to be decided again after the refusal was ruled "invalid" following technical problems during the Planning Committee meeting, which was conducted online. [22]
- Angus Energy has a planning application pending to test for oil in Balcombe, West Sussex,[23] and is awaiting regulatory permissions to reinject waste-water at Brockham, Surrey, to try to enable oil production. [24]

Time and again oil and gas companies have told decision makers on local planning authorities that new onshore oil fields and wells are important for energy security, have a lower carbon footprint than imported fuels and will provide employment for local people. More recently they have implied that more oil is needed to create the raw materials to produce plastics. This briefing will demonstrate that these claims are opaque or narrow in their framing and misleading in their conclusions. It also seeks to highlight that current energy policy and national planning policy, which pre-date the UN Paris Agreement and the UK's net-zero commitment, make it difficult for Mineral Planning Authorities to reject fossil fuel applications outright on the basis of their impact on emissions and hence climate change. Whilst changes made over the last few years to the National Planning Policy Framework do give decision-makers some ammunition to question applications on this basis and on their compliance with sustainable development objectives, they do not go far enough.

2. New onshore oil fields and wells are not needed to help maintain energy security

Key points

- One of the key arguments made by oil and gas companies is that as UK Continental Shelf production declines, an increasing proportion of oil and oil products used in the UK is being met through imports and that new onshore oil exploration and production are essential to help meet this growing shortfall and maintain energy security. This is misleading for the following reasons:
  - ▼ In terms of energy security, the UK compares well with OECD countries for self-sufficiency in oil and diversity and political stability of oil imports.
  - ▼ The UK has been a net importer of oil since 2006 and while the overall trend in domestic oil production is indeed downwards, in recent years production has actually increased.
  - ▼ Demand for oil is falling in the UK and taking action to combat climate change means we must actively manage demand to stay within carbon budgets. Delivering on its climate change commitments will require the Government to put in place policies that speed up the reduction in demand, such that by 2050 oil demand should have fallen to less than a sixth of its present level.
- Although domestic oil production is expected to fall over the next 30 years, given the falling demand for oil and the climate imperative for this to continue, net imports may also be put on a downward trajectory over this timeframe.
- New onshore oil fields, which have a life expectancy of up to 20 years or more, are not needed to maintain security of supply.

The UK compares well with other OECD countries for both self-sufficiency and diversity of oil supplies

The UK has been a net importer of oil since 2005. In 2019 the UK produced 57 million tonnes of oil equivalent (Mtoe) and used 76Mtoe.[25] There are two broad categories of oil imports – crude oil and petroleum products:

- **Crude oil:** Since the UK stopped being self-sufficient, Norway has been our chief source of imported oil. Until recently 62% of our imports came from Norway, but this dropped to 39% in 2018. Imports from the United States have increased, and now make up just over a quarter of our imports. 20% of our imports come from OPEC countries, mainly Nigeria and Algeria.[26]
- **Petroleum products:** Four countries – Russia, the Netherlands, Belgium and the United States – provide about three quarters of our imports of petroleum products. Over half our imports of aviation fuel come from Saudi Arabia, India and Kuwait.[27]

Statements by the oil industry imply that for our oil supplies to be secure, they must come from UK sources. For example, in a brochure produced for their community engagement event in the Isle of Wight, UKOG wrote: *"Our activities are designed to increase the UK's energy security by reducing the increasing dependence on long-distance oil imports from places that often have far less rigorous safety and environmental standards than in the UK"*.[28] Such clear-cut statements are controversial. One of three main conclusions from the UK Energy Research Centre (UKERC)'s 2018 report *The Security of UK Energy Futures* was that: *"Imports can help enhance security by providing additional sources of energy, by lowering costs, or by increasing diversity. What matters most is where the imports are from and whether they are dominated by risky sources or supply routes."*[29] In fact, according to a Government article the UK compares rather favourably with other OECD countries for both self-sufficiency in oil and diversity (including political stability) of oil imports. In terms of diversity, in 2017 the UK ranked second for jet fuel and motor gasoline, sixth for diesel and scored in the top third of OECD countries for crude oil.[30]

While the overall trend in UK domestic oil production is downwards, in recent years production has increased due to new oil discoveries in the North Sea (30 new fields since 2015) combined with new and more efficient extraction techniques.[31] In 2018 the UK was already producing 8.9% more oil per day than in 2017,[32] and production increased again in 2019.[33]

Consequently, UK exports were able to increase and this reduced our net imports during those years.[34] The increase in UK production is reflected in updated Government forecasts which show projected oil production in 2030 that is 3.5Mtoe higher than previous forecasts.[35]

The falling demand for oil in the UK

In the UK demand for oil is falling. In the last 20 years it has fallen from 89Mtoe to around 76Mtoe.[36] Delivering on the fifth carbon budget for the period 2028-2032, and reaching the net-zero target by 2050 or earlier, will require the Government to put in place policies that accelerate demand reduction.

In their advice to Government on delivering the fifth carbon budget, the Committee on Climate Change (CCC) state: *"Under our Central scenario demand for petroleum products would decrease by 29% between 2014 and 2030, to 635 TWh [55Mtoe], primarily reflecting progress in decarbonisation of surface transport"*.[37] The sale of new diesel and petrol cars is banned from 2035 onwards, and there is considerable pressure to move this measure to an earlier date.[38] The Government will certainly need to do much more to deliver on climate change targets but they are now backing schemes to encourage cycling and walking to the tune of £2 billion, with the aim of reducing car use in towns and cities.[39]

The UK has the world's second highest demand for jet fuel, behind only the United States.[40] This is largely due to Heathrow Airport, the largest airport in Europe and a major hub. While the expectation has been that aviation will increase still further, the Covid-19 pandemic and the consequent contraction of the aviation sector due to lockdown measures adds a high level of uncertainty to this assumption.[41]

In addition, given that the CCC's advice on the fifth carbon budget was written before the adoption of the net-zero target, and was instead based on a target to cut greenhouse gas emissions by 80%, it is legitimate to assume that it may need to be tightened and emission reductions accelerated. This could reduce the need for oil in 2030 still further.[42]

By 2050 CCC scenarios for delivering net-zero show oil demand falling to just 12Mtoe, less than a sixth of the current level.[43] Other scenarios show that completely fossil-free energy systems in Europe are feasible by the middle of the century.[44]

At the global level, some companies, such as BP, are now saying that due to the measures put in place to limit the spread of Covid-19 and the impact these have had on economic output, world oil demand may have reached its peak in 2019 and now faces a several decades long decline.[45]

There is no justification for the expansion of onshore oil on the basis of need

Although UK oil production is currently expected to drop to 11Mtoe by 2050,[46] the falling need for oil outlined above implies that the UK may become less, not more, dependent on net oil imports over this time frame. New onshore oil fields, which have a life expectancy of up to 20 years or more[47] are not needed to maintain security of supply.

Demand reduction itself can be an important driver to ensure overall energy security. Of the five energy scenarios developed by UKERC in their 2018 report, it was the two scenarios with lowest primary energy demand in 2050 that fared the best in terms of energy security. Given this finding, the report concluded that: *"by reducing our energy demand we reduce exposure to risks such as price shocks and energy shortages"*.[48]

3. All oil is dirty oil

Key points

- Oil and gas companies are making claims that oil produced in the UK has a lower carbon footprint than long-distance oil imports. While it is true that transporting oil over great distances by ship will add to its carbon footprint, such claims belie the workings of the global oil market.
- Oil produced in the UK may not necessarily displace the use of long-distance imports. It could, for example, displace oil transported by pipeline from Norway, which may have a lower carbon footprint than oil produced in the UK.
- The UK exports both crude oil and petroleum products so oil produced in the UK is not necessarily used in the UK.
- Crucially, focusing on comparing the carbon footprint of different sources of oil ignores the bigger picture:
  - ▼ Increasing UK oil production by opening more fields and drilling more wells will likely lead to a net increase in global oil production and hence greenhouse gas emissions when it is burned.
  - ▼ There is no evidence to suggest that opening more fields and drilling new oil wells in the UK will stop oil being produced elsewhere in the world.
  - ▼ Generating energy by burning oil – from any source – emits significant amounts of greenhouse gases compared to generating energy from sustainable renewable sources. It is these renewable sources, combined with a radical reduction in demand for energy, which should be the alternatives to imported oil, not more onshore oil fields and wells.

There is no guarantee that UK oil will displace long-distance imports or that it will even be used in the UK

Establishing the carbon footprint of upstream oil production is extremely complex and involves determining the emissions from extracting, transporting, and refining oil. Emissions from these activities account for between 15 and 40% of the overall greenhouse gas emissions from transport fuels. The overall emissions include both upstream emissions, as defined above, and downstream emissions when the oil is finally burned to generate energy. [49]

Oil and gas companies claim that the upstream carbon footprint of oil will be smaller if it is produced in the UK rather than imported. [50] Whilst it is true that transporting oil over great distances by ship will add to its carbon footprint, such claims belie the complexity of the workings of the global oil market and are misleading.

For example, as discussed in Part 2, the UK imports oil and oil products from a number of different countries, via pipeline or tanker, and hence the carbon footprint of the oil varies. It is worth repeating here that we import some 39% of our crude oil from our neighbour Norway, mostly via pipeline to Teesside. It is legitimate to assume that, in the absence of a legal commitment not to do so, additional oil produced in the UK will not necessarily displace long-distance imports but could displace oil from Norway. Oil from Norway may have a lower carbon intensity than oil produced in the UK, according to an article published in the journal *Science* in 2018. [51]

Secondly, such claims by the industry also imply that oil produced in the UK will necessarily be used in the UK. This cannot be guaranteed. As well as importing oil, the UK is a significant exporter of crude oil and oil products. Indeed, it is the fifth largest exporter of oil in the OECD. [52] As well as exporting to a number of European countries, the UK exports to the United States and China, to whom exports have increased significantly in recent years. [53] With regards to China in particular, the *Science* article suggests that the carbon intensity of Chinese crude oil may be slightly less than that produced in the UK. Exporting UK crude oil to China could therefore displace lower carbon intensity domestically produced oil and hence increase emissions within China.

Lastly, the complexity of establishing accurate carbon footprints of fossil fuels was highlighted recently in the appeal ruling by the Secretary of State for Communities against the application for a new opencast coal mine near Northumberland. Once all the testimonies had been considered, the Secretary of State concluded that: *"it is not possible, on the evidence before him, to reach a clear and robust conclusion on the respective likely GHG emissions of imported or Highthorn coal or which would produce greater or lesser emissions in either electricity production or industrial use."* [54] Establishing the carbon footprint of differing sources and quality of oil is equally complex.

New UK oil fields and wells and more oil production will result in additional greenhouse gas emissions

The world is on track to produce far more coal, oil and gas than would be consistent with limiting warming to 1.5°C or 2°C, according to a 2019 report from the UN Environment Programme. Global oil production is currently set to exceed a 1.5 degree pathway by 59% (42 million barrels per day) in 2030. [55] Indeed, a report by Global Witness assessed that to have a chance of limiting global average temperature rise to 1.5°C, the world must cease all new oil and gas developments and leave 9% of oil and 6% of gas reserves from existing fields in the ground. [56]

Focusing on the carbon footprint of different sources of oil therefore very narrowly frames the consideration of its climate impact and is a distraction from the real impact of new oil wells. The reality is that, in the absence of a global cap on oil supply, any new oil well approved for commercial production will likely increase the amount of oil in the global market and not replace that which is already in production. This will lead to a net increase in global greenhouse gas emissions when the oil is burned to generate energy.

Put simply, a new well that starts commercial production today will not mean that an existing oil well somewhere else stops operating. Professor Paul Ekins recently made this case with regard to the proposed extension of a coal mine in County Durham [57] and the arguments apply equally to oil exploration and production.

There is no low carbon oil

Generating energy by burning oil – from any source – emits significant amounts of greenhouse gases compared to generating energy from sustainable renewable sources. It is these renewable sources, combined with a radical reduction in demand for energy, which should be the alternatives to imported oil, not more onshore oil wells which will lock us into decades of emissions.

In the UK we are fortunate to have excellent wind, tidal and wave resources. Investment in wind and solar in particular in recent years has meant that the price has fallen so that for most of the world, the cheapest new electricity infrastructure is now either PV solar or onshore wind. [58] In fact in the UK newly published figures by the Government show that the cost of electricity generated from onshore wind and solar could be 50% lower than electricity supplied by gas-fired power stations in 2025. [59] In the first quarter of 2020, almost half of the UK's electricity was generated from renewables. [60] This is a level of change that many would not have considered possible only a decade ago, and it needs to continue at speed.

Focused efforts on energy efficiency and demand reduction and the careful use of renewable electricity resources should mean we are also able to use electricity generated from renewables to produce the other forms of fuel we need such as hydrogen and ammonia, the latter of which could provide an alternative fuel for shipping. [61] Synthetic fuels, for those cases when electricity or hydrogen is not a suitable fuel, can be produced from biomass using hydrogen. [62] There are many more emerging technologies for zero carbon energy. None provide a silver bullet, and each present issues of their own that will need to be considered, but careful use of the full range of sustainable alternatives can replace fossil fuels.

4. Claims about local job creation are not substantiated

Key points

- Onshore oil and gas companies claim that their projects provide local, highly skilled jobs, but these claims are often not backed by actual figures and are therefore hard to substantiate.
- Anecdotal evidence from visits to existing onshore oil sites suggests that facilities seem to run with a small onsite workforce and at times appear completely unmanned.
- Investments in renewable energy production and energy efficiency measures create more than twice as many jobs as the same level of investment in fossil fuels, and investments in nature-based solutions more than ten times as many.
- Crucially, there is a strong crossover between the skill set of those people working in the oil and gas sector, who will need new jobs as we transition to net-zero, and the skills needed for workers in offshore wind, marine renewables and energy efficiency retrofits.
- The necessary lockdown measures put in place to protect the public from Covid-19 and the high levels of unemployment that are likely to follow make it even more urgent to invest in stable, sustainable jobs now and not the few short-term jobs in fossil fuel industries.

Onshore oil and gas companies claim that their projects provide local, highly skilled jobs, [63] but these claims are often not backed by actual figures and are hard to substantiate. Specialist engineering teams are brought in for the initial drilling and setting up of the site but once up and running anecdotal evidence from site visits suggests that facilities seem to run with a small staff and at times appear completely unmanned. [64] This is corroborated by the 2018 Environmental Impact Assessment Scoping Request Report for the Horse Hill well-site which states: *"During the production phase the Site will operate unmanned, except for routine maintenance."* [65] The production phase is 20 years.

Compared to high-carbon investments, green investments are not only good for the climate they can bring more and higher quality jobs.[66] For example, investing $1 million in fossil fuels would create 2.7 full-time equivalent jobs whereas the same level of investment in renewable energy production (such as wind or solar) or energy efficiency would generate 7.5 or 7.7 full-time equivalent jobs respectively. [67] Retrofitting homes to improve insulation and reduce heating demand (and costs) is particularly work intensive. For investments in nature-based solutions (such as the restoration of degraded lands) job creation is even higher. Data from the United States shows that $1 million invested there could deliver 39.7 jobs. [68]

As the CCC states: *"The transition [to net-zero] will necessitate a shift in employment, away from some inherently high emitting activities (e.g. fossil fuel supply) to highly-skilled jobs to deliver the emissions reductions required."*[69] Fortunately the skills needed to work in the offshore wind, marine renewables and energy efficiency retrofit sectors in particular have strong overlap with the skill set of people working in the oil and gas sector, whose jobs will be affected by the decline in the need for fossil fuels. A 2019 report by Oil Change International which looked at the impact on employment in the UK if the development of new oil fields was ended showed that the creation of jobs in clean energy industries could exceed the loss of oil and gas jobs more than three times over. [70]

The Covid-19 pandemic has further exposed the vulnerability of the oil and gas sector, as economic output and demand for energy have fallen and oil prices have tumbled, reportedly putting at risk over 1,000 drilling jobs in the UK alone. [71] Indeed, the necessary lockdown measures put in place to protect the public and the high levels of unemployment that the Bank of England predicts [72] make the need to invest in stable, sustainable jobs and not the few short-term jobs in fossil fuel industries, which carry a high risk of asset stranding, even more urgent. Recent research has estimated that by investing in a green recovery from the pandemic, the UK Government could help to create 1.8 million jobs, in the transport, energy, home insulation and construction, and nature conservation and reforestation sectors. [73]

5. The plastics myth

Key points

- UKOG has made claims implying that new oil and gas wells are needed to provide the feedstocks to make plastic medical equipment as the world battles the Covid-19 pandemic.
- Currently, most oil is not used to make plastic, it is burned to generate energy. In Europe 4-6% of oil and gas is used to make plastic and 87% to generate energy.
- Oil and gas companies are banking on an increase in demand for plastics to fuel their growth. This growth is now very uncertain.
- Plastics can be re-used and recycled numerous times; we do not need more oil to make plastic.
- Plastics are having a catastrophic impact on the environment, particularly the oceans and seas, and every effort should be made to curtail their use where this is possible or to use sustainable alternatives where these exist.

Following a protest by Extinction Rebellion at the Horse Hill site in June 2020, UKOG posted a statement on their website which asked: *"And did they ever stop to think that the medical equipment and PPE the country sorely needs at present is derived from oil and gas?.... Even patient notes are kept in a plastic file and ID wristbands are made from plastic. All are made from petroleum products. You cannot get away from it."* [74]

According to the British Plastics Federation (BPF), only 4% of the world's fossil fuels are currently used as feedstocks in plastic production and in Europe specifically between 4-6% of oil and gas is used for plastic and 87% to generate energy (mostly in the road transport, shipping and aviation sectors). The BPF also state that used plastics can be recycled numerous times. [75]

But oil and gas companies are now banking on future growth in demand for plastics in emerging economies such as India and China in order to offset the impact that increases in renewable energy and electric vehicle use are having on demand for their products. [76] For example, in BP's and the International Energy Agency's central forecasts of oil demand growth, 95% and 45% respectively is linked to estimated growth in plastic demand. [77] However, this growth is now very uncertain.

Responses to the Covid-19 pandemic have stymied economic output and reduced the demand for plastic in key markets, with estimates of a 4% reduction in demand this year. [78] The price of resin has also tumbled. [79] Furthermore, as the world has woken up to the impacts of plastics on our health and environment (see box overleaf) policymakers in Europe and China are now putting in place much more stringent rules to reduce its use. A tax of £713 per tonne for unrecycled plastic waste was recently proposed by the EU and earlier this year a ban on non-biodegradable single-use plastics in major cities from the end of the year was announced in China. The Chinese ban will extend to all cities and towns by 2022. [80] In the UK, the Government's 25-year environment plan has a target of eliminating avoidable plastic waste by the end of 2042 and significantly reducing and where possible preventing all kinds of marine plastic pollution. [81]

The impacts of plastic on the environment:

- It is now painfully evident that single-use plastics are having a catastrophic impact on the environment, particularly the oceans and seas, where plastics kill marine life directly by entanglement or indirectly via ingestion.
- A recent study in the journal *Science* estimates that 8 million tonnes of macroplastic and 1.5 million tonnes of microplastic enter the ocean every year. [82]
- It has been estimated that by 2040 the amount of plastic in the oceans could equal the mass of three million blue whales. [83]
- Microplastic, which never degrades but gets smaller and smaller, can now be found throughout the food chain, including in food for human consumption.
- Discarded plastic blocks drains, pollutes beaches and provides a breeding ground for disease. It is also expensive to clear up.
- A very conservative estimate of the costs of plastic waste for tourism, fishing and shipping is around $13bn a year. [84]
- Carbon Tracker have estimated that plastics place a huge untaxed externality upon society of at least $350 billion per year from carbon dioxide, health costs, collection costs and ocean pollution.[85]

Quite simply we do not need to be investing in new unproven fossil fuel reserves to make plastic when:

- the majority of fossil fuels do not currently go into plastic production;
- there is an enormous amount of plastic already in existence, most of which could be re-used and recycled;
- the growth in plastic is now very uncertain; and
- there is a clear environmental need to significantly and rapidly reduce plastic consumption and deal with the waste that has already been produced, not increase it.

6. Planning and energy policies have not kept pace with climate science and legislation

Key points

- The updates to the National Planning Policy Framework (NPPF), which include an emphasis on renewable energy and clarification that the three objectives of sustainable development must be pursued in mutually supportive ways, are welcome. Mineral Planning Authorities should use these to their full extent in questioning arguments of need put forward by oil and gas companies.
- The removal in 2019 of paragraph 209(a) from the NPPF means that Mineral Planning Authorities no longer need to specifically recognise the benefits of onshore oil and gas developments for energy security or in supporting the transition to a low-carbon economy.
- Planning and energy legislation and policy which emphasises the economic benefits of oil and gas reserves is not consistent with the need to reduce dependence on fossil fuels and the delivery of the 2050 net-zero greenhouse gas target.
- More oil production is not part of a sustainable energy system.

Outdated legislation and policies

Oil and gas companies often justify their plans for new developments by talking about the 'need' for oil. Their arguments refer to energy legislation and strategies which pre-date the Paris Agreement of 2015 and the 2019 amendment to the Climate Change Act which commits the UK to net-zero greenhouse gas emissions by 2050. Since these dates, many councils across the UK have also made Climate Emergency declarations. Consequently, there is a conflict between the climate change obligations and ambitions of Councils and the outdated legislation that promotes the maximum economic recovery of domestic fossil fuels.[86]

For example, in their application to drill at Arreton, on the Isle of Wight, UKOG stated: *"The need for exploration must be considered within the context of government energy legislation (The Energy Act 2008 and 2011), government strategies (The Energy Security Strategy 2012) national planning policy and guidance (National Planning Policy Framework (NPPF), The Overarching National Policy Statement for Energy and National Planning Practice Guidance) and other statements (Annual Energy Statement 2012, 2013 and 2014)."*[87] These all pre-date the Paris Climate agreement of 2015.

Fortunately, some of these policies are now being questioned and challenged. The CCC's Progress Report to Parliament published in June 2020 recommended that Government planning documents should be reviewed to ensure consistency with the UK's net-zero target.[88] In May 2020 the Good Law Project issued proceedings for a Judicial Review of the Government's Energy National Policy Statements which apply to major energy infrastructure. The Good Law Project argue that these Policy Statements, which date from 2011, have led planning decision makers to presume in favour of fossil fuel developments.[89]

Recent updates to the planning framework are welcome but do not go far enough

The 2018 update of the NPPF (which was originally published in 2012) shows a shift towards supporting renewable energy. Paragraph 148 says: *"The planning system should support the transition to a low carbon future ... and support renewable and low carbon energy and associated infrastructure."*[90] Paragraphs 151 and 152 in particular, make renewable energy a clear priority.

Moreover, in March 2019, a High Court judge ruled that paragraph 209(a) of the revised NPPF was unlawful. [91] This paragraph required Mineral Planning Authorities to *"recognise the benefits of on-shore oil and gas development, including unconventional hydrocarbons, for the security of energy supplies and supporting the transition to a low-carbon economy; and put in place policies to facilitate their exploration and extraction"*. The judge, Mr Justice Dove, said adopting this paragraph into the NPPF was unlawful because the government had failed to take into account the scientific developments over low-carbon claims and had also failed to carry out a lawful public consultation on the revision of the policy. [92]

In May 2019, the local government secretary, James Brokenshire, confirmed in a written Ministerial statement that paragraph 209(a) had now been quashed. However, in his statement he also drew specific attention to paragraph 204(a) in the NPPF which still states that planning policies should *"provide for the extraction of mineral resources [oil and gas are considered in the NPPF to be mineral resources] of local and national importance"* and paragraph 205 which states that *"when determining planning applications, great weight should be given to the benefits of mineral extraction, including to the economy"*. [93]

In response to the legal ruling, Friends of the Earth wrote: *"The loss of this paragraph [209(a)] does not mean that onshore oil and gas development and extraction is now prohibited by the NPPF. But it does mean that the NPPF's unequivocal, positive endorsement has been revoked".* [94]

More oil is not part of a sustainable energy system

In their planning applications UKOG make frequent references to 'sustainability', implying that new oil fields and wells are part of a sustainable energy system. For example, in its Planning Statement for the Horse Hill Well Site, dated November 2018, Horse Hill Developments Ltd (a UKOG subsidiary) stated: *"the proposed development is 'sustainable development' engaging the 'presumption in favour of sustainable development'."* [95] The NPPF defines sustainable development as *"meeting the needs of the present without compromising the ability of future generations to meet their own needs"*. The 2018 update of the NPPF also clarifies that the three overarching tenets of sustainable development – economic, environmental, and social – *"need to be pursued in mutually supportive ways"*. The environmental objectives include *"helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy"*.

As Section 3 of this briefing demonstrates, new fossil fuel developments will likely increase the amount of oil in the global market which would lead to a net increase in global greenhouse gas emissions when this is burned to generate energy. This would intensify climate change, harming current and future generations. Arguably new fossil fuel extraction does therefore not meet sustainable development objectives as defined in the NPPF. Sensitively sited sustainable renewable energy and energy-saving measures which reduce overall energy consumption do.

7. Conclusions and Recommendations

In seeking to counter some of the misleading claims made by fossil fuel companies regarding the need for more onshore oil fields and wells in the UK, we reach the following conclusions:

Firstly, new onshore oil fields and wells are not needed to help maintain energy security in the UK. Compared to other OECD countries the UK is currently in a good position with regards to self-sufficiency in oil and in diversity and political stability of imports. The demand for oil is already on a downward trajectory and if the UK delivers on its net-zero target then the CCC foresee demand falling by over 80% below current levels over the next 30 years. Other scenarios show that completely fossil-free energy systems are feasible by 2050. Indeed, the Covid-19 pandemic has introduced a new level of uncertainty regarding demand for oil and hence the longevity of the global oil industry as a whole. [96] OPEC is considering whether this will lead to a permanent reduction in oil demand [97] and fossil fuel companies are questioning the merit of continuing to look for oil. [98]

Secondly, there is no low carbon oil. Claims that new UK oil is needed based on comparisons of the carbon footprint of different sources are extremely narrow in their framing and ignore the real impact of new oil wells on the climate. In the absence of a global cap on oil supply, any new oil well approved for commercial production will likely increase the amount of oil in the global market and not replace that which is already in production. This will lead to a net increase in global greenhouse gas emissions when the oil is burned to generate energy.

Thirdly, as the UK transitions to a net-zero carbon economy, and given the high levels of unemployment now expected, it is crucial that investments are made in high quality, sustainable jobs and not the few short-term jobs provided by the onshore fossil fuel industry. Research shows that $1 million invested in jobs in renewable energy and energy efficiency can create more than double the number of jobs as the same level of investment in the fossil fuel industry. For jobs which help to restore the natural environment the multiplier is significantly higher.

Finally, more oil is not needed to make more plastic. There can be no doubt that plastics have improved our quality of life since their invention just over one hundred years ago. However, the convenience of plastics, particularly single use items, has led to a throwaway culture which is now having catastrophic impacts on the environment. [99] There can be no justification for the expansion of onshore oil wells to produce the feedstocks to make even more plastics.

In short, just as coal now only has a very small part to play in electricity generation and existing coal plants face closure by 2025,[100] so oil companies operating in the UK must face up to the reducing need for oil as we transition to a sustainable net-zero carbon economy and the climate imperative that we leave fossil fuels in the ground.

The Weald Action Group therefore makes the following recommendations:

1. In considering planning applications for oil exploration and production **Mineral Planning Authorities** should use the evidence presented in this report to challenge claims made by applicants regarding the perceived benefits of indigenous oil in relation to energy security, its climate impacts, local employment and plastic production.

2. Energy legislation, the National Planning Policy Framework and sections of local Minerals Plans dealing with hydrocarbon developments should all be updated by **the relevant bodies** to reflect the global climate and ecological emergencies, the declining need for oil in the UK, and the fact that more onshore oil fields are not needed during the transition to a net-zero carbon economy. They should also embody the Paris Agreement,the UK Climate Change Act and carbon budgets. The need for oil should be considered within the context of the need for energy overall, rather than any presumed need for fossil fuels.

3. **Mineral Planning Authorities** should recognise that sustainable development as defined and elaborated on in the 2018 update of the National Planning Policy Framework means that the environmental and social impacts of an application must be considered. They must abandon any presumption in favour of new onshore oil developments. They should assess all the impacts flowing from their decisions, including the indirect greenhouse gas emissions from produced oil; and align their decision-making with their own Climate Emergency declarations.

4. **The Committee on Climate Change** should urgently review its position on the role of new onshore oil in the transition to net-zero carbon in the UK and bring it in line with current scientific knowledge regarding the impact of fossil fuel production and combustion on the climate, and analysis on the need for it in the energy mix.

References

[1] https://www.bbc.co.uk/news/uk-scotland-49678903
and https://www.theguardian.com/environment/2020/aug/23/earth-lost-28-trillion-tonnes-ice-30-years-global-warming
[2] https://www.carbonbrief.org/siberia-s-2020-heatwave-made-600-times-more-likely-by-climate-change
[3] https://eu.usatoday.com/in-depth/news/2020/09/10/wildfires-california-washington-oregon-drought-heat-climate-change-graphics/5764156002/
[4] https://www.theguardian.com/world/2020/sep/15/west-coast-wildfires-smoke-new-york-washington-dc
[5] https://www.actionaid.org.uk/about-us/what-we-do/emergencies-disasters-humanitarian-response/climate-change/climate-change-and-poverty
[6] https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/
[7] http://priceofoil.org/content/uploads/2019/05/SeaChange-final-r3.pdf
[8] https://www.nature.com/articles/s41586-020-1991-8
[9] https://www.sciencedirect.com/topics/earth-and-planetary-sciences/global-warming-potential
[10] https://drillordrop.com/2018/09/17/investigation-beauty-spot-oil-well-releases-hundreds-tonnes-of-methane-into-the-atmosphere/
[11] https://www.legislation.gov.uk/ukpga/2008/27/contents
[12] https://www.cusp.ac.uk/themes/aetw/zero-carbon-sooner/
[13] http://www.searchanddiscovery.com/pdfz/documents/2018/11100palci/ndx_palci.pdf.html
[14] https://unearthed.greenpeace.org/2018/03/15/home-counties-shale-oil-acid-drilling-balcombe/
[15] https://drillordrop.com/2016/04/18/weald-oil-production-could-generate-52bn-over-40-years-but-2400-wells-needed/
[16] According to the BBC - https://www.bbc.co.uk/news/business-36069751
[17] https://www.climateassembly.uk/report/
[18] https://drillordrop.com/2019/09/11/live-news-updates-on-decision-over-20-years-of-oil-production-at-horse-hill/
[19] https://publicaccess.iow.gov.uk/online-applications/applicationDetails.do?activeTab=dates&keyVal=Q7DSVFIQ07V00
[20] https://drillordrop.com/2020/07/07/breaking-broadford-bridge-oil-site-gets-two-more-years-live-news-updatesdford-bridge-extension/
[21] https://www.ukogplc.com/page.php?pID=127 (the “A24” Prospect, PEDL143)
[22] https://drillordrop.com/2020/08/03/dunsfold-drilling-plans-to-be-decided-again-after-refusal-ruled-invalid/
[23] https://drillordrop.com/2020/08/27/plans-for-shorter-balcombe-well-test/
[24] http://www.angusenergy.co.uk/what-we-do/brockham-oil-field/
[25] From February 2020: https://www.ogauthority.co.uk/data-centre/data-downloads-and-publications/production-projections/
[26] Pages 48 and 49:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904777/DUKES_2020_Chapter_3.pdf
[27] Pages 51 and 52: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904777/DUKES_2020_Chapter_3.pdf
[28] https://www.ukogplc.com/ul/Arreton%20Engagement%20Meeting%20Brochure.pdf
[29] https://ukerc.ac.uk/publications/uk-energy-security/
[30] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/743566/Diversity_of_supply_for_oil_and_oil_products.pdf
[31] https://www.ogauthority.co.uk/news-publications/news/2019/uk-oil-and-gas-production-rises-to-17-million-barrels-per-day-in-2018/
[32] https://www.ogauthority.co.uk/news-publications/news/2019/uk-oil-and-gas-production-rises-to-17-million-barrels-per-day-in-2018
[33] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/822303/Chapter_3.pdf
[34] Page 49 -
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904777/DUKES_2020_Chapter_3.pdf
[35] https://www.ogauthority.co.uk/media/3391/oga-production-projections-february-2017.pdf and
https://www.ogauthority.co.uk/media/6407/oga-production-and-beis-demand-projections-february-2020.xlsx
[36] https://www.ogauthority.co.uk/media/6407/oga-production-and-beis-demand-projections-february-2020.xlsx
[37] https://www.theccc.org.uk/wp-content/uploads/2015/11/Committee-on-Climate-Change-Fifth-Carbon-Budget-Report.pdf –
Page 90, converted from 635TWh using: https://www.iea.org/reports/unit-converter-and-glossary
[38] https://www.theguardian.com/environment/2020/feb/12/uk-ban-sale-petrol-diesel-cars-shapps-transport
[39] https://www.gov.uk/government/news/pm-kickstarts-2bn-cycling-and-walking-revolution
[40] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/743566/Diversity_of_supply_for_oil_and_oil_products.pdf
[41] https://theconversation.com/what-future-do-airlines-have-three-experts-discuss-135365 and
https://www.itv.com/news/london/2020-08-28/gatwick-airport-expects-up-to-five-year-wait-for-air-travel-demand-to-recover
[42] In their Net Zero report the CCC state: “We do not recommend changes to the fourth or fifth carbon budgets at this time, but note that both were set on the path to the existing 80% target and therefore are likely to be too loose. We already recommend that the Government aim to out-perform the legislated budgets based on revisions to our estimate of the cost-effective path to the 80% target. We reiterate that recommendation and we will consider whether the fourth and fifth carbon budgets should be tightened in legislation as part of our advice on the sixth carbon budget.” -
https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-The-UKs-contribution-to-stopping-global-warming.pdf

[43] https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-The-UKs-contribution-to-stopping-global-warming.pdf - Page 252, converted from 140TWh using: https://www.iea.org/reports/unit-converter-and-glossary

[44] https://europeanclimate.org/resources/fossil-free-energy-systems-in-europe-are-feasible-by-2050/

[45] https://www.theguardian.com/business/2020/sep/14/global-oil-demand-may-have-passed-peak-says-bp-energy-report

[46] https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-The-UKs-contribution-to-stopping-global-warming.pdf - Page 252, converted from 130TWh using: https://www.iea.org/reports/unit-converter-and-glossary

[47] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/224238/Planning_practice_guidance_for_onshore_oil_and_gas.pdf

[48] https://ukerc.ac.uk/publications/uk-energy-security/

[49] https://science.sciencemag.org/content/361/6405/851

[50] On 23 July 2020, Stephen Sanderson, Chief Executive of UK Oil & Gas PLC, wrote to Bob Seely MP in response to his objection to their plans to explore for oil on the Isle of Wight. He wrote: "The overall greenhouse gas footprint of indigenous oil and gas is significantly less than for equivalent long distance imports". - https://www.ukogplc.com/ul/UKOG%20Bob%20Seely%20MP.pdf

On 13 August 2020, in a statement on its application for well testing at Balcombe, George Lucan, Managing Director of Angus Energy plc, said: "Our revised planning application… will allow the Company and its shareholders to exploit this valuable asset and make our own contribution to the Government's net-zero targets specifically by replacing imported hydrocarbons and their higher associated carbon footprint." https://www.lse.co.uk/rns/ANGS/balcombe-update-jo5tcn7xtia0ddk.html

[51] https://science.sciencemag.org/content/361/6405/851

[52] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/743566/Diversity_of_supply_for_oil_and_oil_products.pdf

[53] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904777/DUKES_2020_Chapter_3.pdf

[54] Paragraph 67 - https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/914860/Combined_DL_IR_R_to_C_Highthorn.pdf

[55] Page 15 and page 15, footnote 8 - http://productiongap.org/wp-content/uploads/2019/11/Production-Gap-Report-2019.pdf

[56] https://www.globalwitness.org/en/campaigns/oil-gas-and-mining/overexposed/

[57] https://www.ucl.ac.uk/bartlett/sustainable/sites/bartlett/files/coal_bradley_extension_pe_let_200421.pdf

[58] https://www.forbes.com/sites/mikescott/2020/04/30/solar-and-wind-costs-continue-to-fall-as-power-becomes-cleaner/#208ecd7785f9

[59] https://www.carbonbrief.org/wind-and-solar-are-30-50-cheaper-than-thought-admits-uk-government?fbclid=IwAR3xD-sY0s9FMb8Z22dvheeAV5bGQcme116K65a7SKAfFvG0efEpWEqFIk0

[60] https://www.theguardian.com/business/2020/jun/25/renewable-energy-breaks-uk-record-in-first-quarter-of-2020

[61] https://europe.edf.org/news/2019/02/05/shipping-can-reduce-climate-pollution-and-draw-investment-developing-countries

[62] https://www.cat.org.uk/info-resources/zero-carbon-britain/research-reports/zero-carbon-britain-rising-to-the-climate-emergency/

[63] Matt Cartwright, Commercial Director of UK Oil & Gas PLC, speaking at Surrey County Council's planning and regulatory committee meeting on 11 September 2019, said: "It's important to stress that producing oil in the UK does have important benefits. Employment benefits clearly from the jobs it creates…." See webcast, from 28:10 here: https://surreycc.public-i.tv/core/portal/webcast_interactive/440931 Stephen Sanderson, Chief Executive of UK Oil & Gas PLC, speaking at the same meeting, said: "… generate further highly skilled jobs and high value supply chain within the county." See webcast, from 37.57

[64] Anecdotal evidence from a campaigner who visited the three drilling sites at Horndean and the site at Singleton during February 2019.

[65] https://investigatingbalcombeandcuadrilla.files.wordpress.com/2018/09/horse-hill-prdn-eia-sco-rqst-rpt-09-18.pdf

[66] https://www.financeministersforclimate.org/sites/cape/files/inline-files/Better%20Recovery%2C%20Better%20World%20FINAL.pdf

[67] https://ideas.repec.org/a/eee/ecmode/v61y2017icp439-447.html

[68] https://www.sciencedirect.com/science/article/abs/pii/S0308597X12001182#bib1

[69] https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-The-UKs-contribution-to-stopping-global-warming.pdf

[70] http://priceofoil.org/content/uploads/2019/05/SeaChange-final-r3.pdf

[71] https://www.energyvoice.com/oilandgas/north-sea/234991/drilling-jobs-carnage-shows-uk-oil-industry-in-crisis/

[72] https://www.theguardian.com/business/2020/may/07/uk-economy-to-shrink-by-25-percent-and-unemployment-to-double-warns-bank-of-england-coronavirus

[73] https://www.greenpeace.org.uk/news/green-jobs-government-green-recovery/

[74] https://drillordrop.com/2020/06/01/lock-on-protest-at-horse-hill-oil-site/

[75] https://www.bpf.co.uk/Press/Oil_Consumption.aspx

[76] https://uk.reuters.com/article/us-petrochemicals-iea/rising-use-of-plastics-to-drive-oil-demand-to-2050-iea-idUKKCN1ME2QD and https://www.theguardian.com/environment/2020/sep/04/war-on-plastic-could-strand-oil-industrys-300bn-investment

[77] https://carbontracker.org/reports/the-futures-not-in-plastics/

[78] Ibid.

[79] https://www.reuters.com/article/us-health-coronavirus-plastic-analysis-idUSKBN23B0UT

[80] https://www.theguardian.com/environment/2020/sep/04/war-on-plastic-could-strand-oil-industrys-300bn-investment

[81] https://www.gov.uk/government/publications/25-year-environment-plan/25-year-environment-plan-our-targets-at-a-glance

[82] https://science.sciencemag.org/content/early/2020/07/22/science.aba9475

[83] https://climatenewsnetwork.net/waste-plastic-cascade-could-triple-in-20-years/

[84] https://science.sciencemag.org/content/early/2020/07/22/science.aba9475

[85] https://carbontracker.org/reports/the-futures-not-in-plastics/

[86] For example, the Government's 2012 Energy Security Strategy states: "It is important that the UK maximises economic recovery of our indigenous hydrocarbon reserves, both from an energy security and an economic perspective".
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/65643/7101-energy-security-strategy.pdf

[87] https://publicaccess.iow.gov.uk/online-applications/files/D5013E385293F3654148C5427F56B0E7/pdf/20_00513_FUL-STATEMENT_OF_COMMUNITY_INVOLVMENT-2826898.pdf - viewed in June 2020.

[88] https://www.theccc.org.uk/wp-content/uploads/2020/06/Reducing-UK-emissions-Progress-Report-to-Parliament-Committee-on-Cli.._-002-1.pdf

[89] https://goodlawproject.org/news/judicial-review-energy-policy

[90] https://webarchive.nationalarchives.gov.uk/20181206183454/https://www.gov.uk/government/publications/national-planning-policy-framework--2

[91] https://policy.friendsoftheearth.uk/insight/court-order-quashes-fracking-policy

[92] https://www.bailii.org/cgi-bin/format.cgi?doc=/ew/cases/EWHC/Admin/2019/519.html

[93] https://questions-statements.parliament.uk/written-statements/detail/2019-05-23/HLWS1549

[94] https://policy.friendsoftheearth.uk/insight/court-order-quashes-fracking-policy

[95] https://planning.surreycc.gov.uk/planappdisp.aspx?Appno=SCC%20Ref%202016/0189

[96] https://www.theguardian.com/business/2020/jun/04/coronavirus-crisis-collapse-fossil-fuels-demand

[97] https://www.aljazeera.com/ajimpact/peak-oil-finally-opec-prepares-age-falling-demand-200728064859370.html

[98] https://www.bloomberg.com/news/articles/2020-08-16/oil-companies-wonder-if-it-s-worth-looking-for-oil-anymore

[99] https://www.nationalgeographic.com/environment/habitats/plastic-pollution/

[100] https://www.gov.uk/government/news/government-announces-plans-to-close-coal-power-stations-by-2025

WEALD
ACTION GROUP

wealdactiongroup.org.uk
info@wealdactiongroup.org.uk