



# The Net Zero Review:

Response by the Weald Action Group to the Net Zero Review Call for evidence commissioned by the BEIS Secretary of State

## Overarching questions

### 1. How does net zero enable us to meet our economic growth target of 2.5% a year?

This first question is key to our concerns about this present governments approach to climate change and the net zero target. It isolates economic growth as an end in itself. Other vital goals are also part of the route to net zero, and measures that promote economic growth but conflict with these other goals must be modified or rejected. These vital goals must include

- an equitable sharing of national wealth,
- sustainable use of our natural resources so that they are available for future generations,
- protecting what remains of our biodiversity and natural world.

A stand-alone goal of economic growth is also in danger of obscuring the urgency of our situation. The most recent UN Emissions Gap Report, published 27 October 2022, states that we no longer have a credible pathway to 1.5°C<sup>1</sup>. Present climate commitments, both national and global, are on a pathway to a 2.8°C temperature increase by the end of the century. We have to act urgently. Emissions reduction has to be the main focus of net zero policies.

We need to concentrate on actions that are sure to deliver emission reductions. We cannot rely on speculative, unproven technologies. While these do need developing and may provide important breakthroughs at a later date, our chief focus has to be on proven and reliable technologies and policies that can be sure to achieve significant emission reductions both in the short and long term. Emissions are cumulative. We have to reduce them now, we have to reduce them by 45% by 2030 and then we have to keep on reducing them for decades to come.

### 2. What challenges and obstacles have you identified to decarbonisation?

The government's commitment to decarbonisation still needs to be stronger. Although the government has made moves towards the net zero target, they have been shown to fall short of what is actually needed<sup>2</sup>. Not only has the government's net zero Strategy been

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<sup>1</sup> 0C

<sup>2</sup> <https://www.euronews.com/green/2022/10/18/embarrassing-but-welcome-green-lawyers-triumph-as-uk-admits-its-net-zero-strategy-is-unlaw>



found to be inadequate and unlawful, but the government has also been widely criticised for low levels of delivery<sup>3</sup>.

The government is also responsible for policies that increase greenhouse emissions that conflict directly with the net zero target. Examples include;

- i) Immature technologies. As well as the net zero target of 2050 the UK is committed to an interim target of 45% emission reductions by 2030 compared to 2018 levels. The net zero Strategy relies on technologies that are still in development and unlikely to be working at scale (if at all) by this date<sup>4</sup>, such as synthetic fuels for aviation and carbon removal technologies. More policies are needed that rely on existing technologies and that accept that there will have to be reductions in energy demand and changes in behaviour and practices.
- ii) Oil and Gas. It is our use of fossil fuels that have been the most significant cause of climate change and global emissions continue to rise. Both the IPCC and the International Energy Agency have stated that there should be no further investment in new oil and gas developments<sup>5</sup> if we are to have any hope of keeping within the Paris Agreement, yet the UK continues to approve and finance new developments.

Moreover, the UK continues to subsidise the oil and gas industry to an average of £12 billion a year<sup>6</sup>.

Lobbying of parliament by the oil and gas industry has a disproportionate and harmful influence on climate change policies<sup>7</sup>. It is our opinion that this lobbying accounts for the granting of further exploration licenses at a time when the warnings of scientists have become increasingly urgent. It accounts for a windfall tax allowing an exemption if oil companies invest in further climate damaging oil and gas exploration. So much so that Shell, who have not paid tax on their UK

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<sup>3</sup> <https://www.theccc.org.uk/2022/06/29/current-programmes-will-not-deliver-net-zero/>

<sup>4</sup> <https://ukfires.org/minus-45/>

<sup>5</sup> [https://iea.blob.core.windows.net/assets/7ebafc81-74ed-412b-9c60-5cc32c8396e4/NetZeroby2050-ARoadmapfortheGlobalEnergySector-SummaryforPolicyMakers\\_CORR.pdf](https://iea.blob.core.windows.net/assets/7ebafc81-74ed-412b-9c60-5cc32c8396e4/NetZeroby2050-ARoadmapfortheGlobalEnergySector-SummaryforPolicyMakers_CORR.pdf)

<sup>6</sup> <https://neweconomics.org/2021/11/ffs>

<sup>7</sup> <https://www.theguardian.com/politics/2022/feb/20/lobbyists-for-oil-and-gas-companies-shell-bp-exxonmobil>



income since 2017, will not be paying windfall tax despite having made a profit of £22 billion pounds in the first nine months of 2022<sup>8</sup>.

- iii) Distribution system inadequate. There will be a significant increase in the demand for renewable electricity and electricity generation will be less centralised. This requires a flexible distribution system. Present plans are unlikely to meet these requirements<sup>9</sup>.
- iv) Aviation. The Committee on Climate Change (CCC) while making some allowance for growth in passenger numbers, states there should be no new aviation infrastructure<sup>10</sup> and yet plans are proceeding to expand six major airports<sup>11</sup>.

The aviation industry benefits from a number of subsidies. Aviation fuel is exempt from tax. Domestic flights were subsidised to the tune of £4.3 million in 2021. These are measures that promote an increase aviation demand, even though emissions from similar journeys by rail, and even by car, are considerably smaller than those by plane.<sup>12</sup> Railways and electric transport solutions do not receive similar levels of subsidy

- v) Road transport is responsible for over a quarter of UK emissions, so it is vital that road transport is transformed not only by the increased use of electric vehicles, but also by a significant reduction in individual car use. To achieve this reduction we need convenient, reliable and affordable public transport systems. Increasing road building has been shown to increase car use. However, government policy and finance to date has prioritised road building<sup>13</sup> over public transport<sup>14</sup>.
- vi) Increasingly carbon offsetting is seen as a useful strategy to reducing carbon footprints. However, it is also a means of maintaining business as usual and is actually reducing or slowing down emission reductions. Many companies see carbon offsetting as an alternative to reducing emissions. There are some activities that are so hard to decarbonise that offsetting is needed, but there are

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<sup>8</sup> <https://www.itv.com/news/2022-10-27/shell-wont-pay-the-uk-windfall-tax-this-year-despite-eye-watering-profits>

<sup>9</sup> <https://ukfires.org/minus-45/>

<sup>10</sup> <https://www.theccc.org.uk/wp-content/uploads/2020/12/Sector-summary-Aviation.pdf>

<sup>11</sup> <https://www.foundationrecruitment.com/uk-airports-expansion-plans/>

<sup>12</sup> <https://www.bbc.co.uk/news/science-environment-49349566>

<sup>13</sup> <https://www.theguardian.com/uk-news/2020/mar/11/chancellor-announces-27bn-for-roadbuilding-in-budget>

<sup>14</sup> <https://www.theguardian.com/politics/2022/jan/23/boris-johnsons-bus-back-better-red-wall-levelling-up-treasury-cuts-funding>



many others where this is not the case. Businesses are resorting to buying carbon credits rather than attempting to reduce their own emissions. Moreover, the offsetting business itself is beset with problems. These include the fact that offsetting schemes can invest in projects that would have happened anyway and that many schemes do not actually reduce emissions as much as they claim<sup>15</sup>.

### **3. What opportunities are there for new/amended measures to stimulate or facilitate the transition to net zero in a way that is pro-growth and/or probusiness?**

The academic research program, UK FIRES published their report on Energy earlier this year<sup>16</sup>. This emphasises that non-emitting electricity should be the main source of energy, but that the increase in demand is not likely to be met fully by supply. Therefore, not only are there business opportunities in increasing the infrastructure for generating and distributing non-emitting electricity, but there will also be additional opportunities for managing shortages in supply. Their research estimates the value of these opportunities.

- i) Energy efficiency in products and services  $\approx$  £37 billion per year. This includes retrofitting of buildings.
- ii) Developing systems for time shifting to adapt to a more intermittent electricity supply  $\approx$  £109 billion per year.
- iii) Electrifying final energy demand. Electrifying transport  $\approx$  £34 billion per year and domestic heating  $\approx$  £5.5 billion.
- iv) Decommissioning or repurposing fossil fuel infrastructure  $\approx$  £8 billion per year.

### **4. What more could government do to support businesses, consumers and other actors to decarbonise?**

Our answer to question 2 includes two examples of government support through subsidies for policies that add to climate change; the oil and gas industry and increased road building. Such subsidies and incentives should be transferred to decarbonisation businesses, benefitting both the businesses and consumers.

Providing consistent policies and certainty for business. This government has a history of pulling the plug on businesses and investors in decarbonisation. The Zero Carbon Homes scheme was cancelled in 2016 after many building firms had been preparing and investing

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<sup>15</sup> <https://www.theccc.org.uk/publication/voluntary-carbon-markets-and-offsetting/>

<sup>16</sup> <https://ukfires.org/energy-sector-within-absolute-zero/>



for the standards<sup>17</sup>. The Green Homes Grant scheme was closed after only six months<sup>18</sup> and left many builders and installers in financial difficulties<sup>19</sup>. Businesses need well planned schemes that can stay the course and they can feel confident are worth investing in.

Many communities want to set up local renewable generation schemes. Government needs to set up support systems that help local groups to do this. Support should include advice and expertise and financial incentives. There need to be changes in the planning system, for instance we need to make it easier to set up onshore wind projects, one of the cheapest forms of renewable energy, in suitable locations.

Ensure that there is a trained workforce able to meet the demands of decarbonisation. The lack of skilled people able and willing to do this work has proved a considerable hindrance to progress in this area<sup>20</sup>. This lack of a skilled workforce has been pinpointed by the Committee on Climate Change on a number of occasions. The government needs to ensure there are training schemes and apprenticeships available and incentives for people to join them to ensure we have a large enough workforce to satisfy the demand.

#### **4. Where and in what areas of policy focus could net zero be achieved in a more economically efficient manner?**

Climate change is the result of human activities that pollute our air with greenhouse gases and which pollute all parts of the environment. We need to introduce a principle of “Polluter Pays”. At present the floods, the wildfires, the health consequences, the lost working-hours and the economic losses are mostly paid for by the general public and taxpayers. The polluters, protected from the economic consequences of their activities have few incentives to make real reductions to their emissions. We need carbon taxes and pollution taxes to incentivise them to make real changes. These taxes need to be extended to imports. This will protect domestic businesses and encourage other countries to make similar decarbonising changes. Carbon taxes would make highly polluting goods and services more expensive, which in turn would help bring about some of the behaviour changes needed to achieve net zero <sup>21</sup>

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<sup>17</sup> <https://www.theguardian.com/environment/2015/jul/10/uk-scrap-zero-carbon-home-target>

<sup>18</sup> <https://www.theguardian.com/environment/2021/jul/14/uk-ministers-resist-calls-to-reduce-vat-on-green-home-improvements>

<sup>19</sup> <https://www.theguardian.com/environment/2021/mar/22/uk-government-green-homes-grant-disastrous-mps-say>

<sup>20</sup> <https://www.theguardian.com/money/2021/aug/18/retrofitting-why-carbon-reducing-renovations-are-going-to-be-big-business>

<sup>21</sup> Helm D. 2020. Net Zero. How we stop causing climate change. *E book*. William Collins



Government support for some areas of decarbonisation is essential. Some projects, such as the wholesale electrification of rail and road freight systems are on a scale that would be difficult for private investment to meet. They would need central planning and implementation rather than piecemeal operations, as we have with our poor EV charging network<sup>22</sup>. These are services that benefit the population, they are “public good” and they require efficient, coordinated organisation.

The 45% emissions reduction by 2030 target requires a 30% reduction in total energy demand by this date, according to the UK FIRES research team<sup>23</sup>. This is a significant challenge. We cannot afford to waste time or money, so it is particularly important that concentrate on strategies and technologies that are sure to deliver the emission reductions we need to keep within our legal commitments. We cannot afford to waste our resources on strategies unlikely to deliver these reductions, or even worse, eventually increase emissions. Examples of this include

- i) Synthetic aviation fuels would either require excessive amounts of biomass or renewable electricity. These cannot be produced in the quantity required<sup>24</sup>.
  
- ii) Hydrogen is proposed as the sustainable alternative to heating, cooking, transport, and industrial energy. It can be produced either from fossil fuels with Carbon Capture and Storage (CCS), “blue hydrogen, or from electricity, preferably renewable electricity, “green hydrogen”.

Blue hydrogen is controversial and recent research suggests that it may even increase emissions<sup>25</sup>. We support the opinion that the promotion of blue hydrogen is largely a response to lobbying from the oil and gas industry,<sup>26</sup> as it would increase their production and profits. Blue hydrogen would lock us into further fossil fuel production for decades to come.

Green hydrogen is still an energy intensive and expensive process. We are unlikely to ever have the energy resources in the quantities required for our heating, transport and industrial requirements. Moreover, most of these can be

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<sup>22</sup> <https://www.which.co.uk/news/article/5-problems-with-electric-car-charging-and-how-to-fix-them-a7ZWB7T3m1Kh>

<sup>23</sup> <https://ukfires.org/minus-45/>

<sup>24</sup> <https://stay-grounded.org/e-fuels-a-realistic-alternative-for-powering-aviation/>

<sup>25</sup> <https://onlinelibrary.wiley.com/doi/epdf/10.1002/ese3.956>

<sup>26</sup> <https://www.thetimes.co.uk/article/energy-giants-lobbying-fuels-the-rise-of-hydrogen-z7bxq7s3h>



serviced more efficiently by using the electricity directly using heat pumps, EV cars, electric trains etc. Hydrogen production should be reserved for hard to decarbonise processes such as ammonia production.

- iii) Carbon Capture and Storage (CCS). As yet there are no successful projects working at scale<sup>27</sup>. In the UK there are two large scale projects of hydrogen production with CCS being built and intended to be in production by 2025, and a further two planned to be in production by 2030. As of August 2022, one of these projects, the East Coast Cluster (ECC) finally reached a shortlist of 14 projects that could become part of the project. We suggest that there can as yet, be no certainty that these projects will deliver in the quantities and in the time-scale that has been proposed.

Examples of strategies that are more likely to deliver emissions reduction in the time scale.

- i) Home heating is a large source of our emissions. It is widely understood that UK homes are the leakiest in Europe. A widespread retrofit program is needed urgently to reduce domestic emissions. This has the additional benefit of making home heating cheaper.
- ii) The building industry could do much to reduce emissions both in the way their houses are designed and in their use of materials. Increased regulations on new builds for heating, cooling and insulation are needed. Regulations that take account of the embodied emissions in the materials used and that will reduce wastage are also needed.

Cement production is a particularly difficult process to decarbonise. UK FIRES estimates that production will need to be reduced by 45%. Changes in building design and building regulations would help to deliver these reductions.

- iii) UK FIRES also estimates similar levels of reduction in the production of plastics. This requires further reductions in the use of plastics, especially single use plastics, and extending the lifetime of plastic goods.
- iv) Ammonia, an important chemical in many industrial processes and in agriculture, can be produced without emissions using hydrogen. This would be an efficient use of the proposed increases in hydrogen production.
- v) Emissions from freight transport needs to fall by 45% by 2030. Transporting much more freight by rail would deliver some of these reductions. Road freight transport needs to manage vehicle capacity more efficiently. Reducing empty

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<sup>27</sup> <https://ieefa.org/resources/carbon-capture-crux-lessons-learned>



load trips and using last mile logistics are some of the measures that would reduce emissions.

**5. How should we balance our priorities to maintaining energy security with our commitments to delivering net zero by 2050?**

The most secure energy is the energy we don't use. We have to accept that our net zero commitments have to mean we use less energy. The recent war in Ukraine has highlighted how vulnerable our dependency on fossil fuels makes us. The profits made by oil and gas companies during this crisis also demonstrates how much they have to lose. We need to resist their lobbying. There is little time left to manage reductions in demand and it requires a commitment from government to do so.

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

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