

General Election Net Zero myths – debunked

As part of our General Election campaign, we are pleased to share our responses to some of the most frequently spread misinformation aimed at undermining the efforts towards achieving net zero carbon emissions.

Table of Contents

1. ‘The efforts to decarbonise the UK economy will push up energy bills’
2. ‘We need fossil fuels for when the wind doesn’t blow and the sun doesn’t shine’
3. ‘If renewables are cheaper than gas, why are government subsidies even needed?’
4. ‘The cost of Net Zero outweighs the benefits to the UK economy’
5. ‘Why are we sacrificing the UK’s best agricultural land to build renewable energy infrastructure’
6. ‘The infrastructure needed for Net Zero will destroy our countryside’
7. ‘Why should the UK pursue net zero and renewables when it responsible for less than 2% of global emissions’
8. ‘The Cost of moving to an EV is unachievable for most people’
9. ‘The cost of moving to a Heat pump is too great for most households’

1. *'The efforts to decarbonise the UK economy will push up energy bills'*

The energy price cap was introduced by the Government in January 2019 and sets a maximum price that energy suppliers can charge consumers in England, Scotland, and Wales for each kilowatt hour (kWh) of energy they use. UK households' bills remain substantially higher than pre-pandemic levels, even taking into account the drop in the upcoming price cap on 1 July 2024.

The reason energy bills are still so high is because of the price of wholesale gas and costs of the electricity and gas networks. Both Ofgem and Scottish power have said that energy prices are falling because of lower wholesale market prices. Gas is the main energy source for British homes, and plays the greatest role in setting the price cap. The Russian invasion of Ukraine led to constraints in gas supply, and prices remain subject to wholesale market volatility.

The UK's reliance on energy imports means that geopolitical incidents could continue to have a significant impact, which is why investing in renewable energy produced in the UK is crucial to driving the cost of energy bills down in the long term. Research has shown that if we had completed more Contracts for Difference (CfD) power auctions, households would have saved billions of pounds in lower energy bills as a result of needing to import less fossil fuel such as gas.

2. *'We need fossil fuels for when the wind doesn't blow and the sun doesn't shine'*

The UK needs a flexible energy system, but relying on burning fossil fuels such as gas and coal does not make sense, either from an energy security or a cost-of-living perspective. Renewable electricity comes from a range of technologies which can offer reliable and consistent power similar to fossil fuels, especially when combined

with energy storage (new, medium and longer duration technologies in particular) and flexible resources.

Unabated fossil fuel gas plants (i.e. ones that do not capture the greenhouse gases produced when gas is burnt) will be expensive backups that could just as easily be provided by green options, including bioenergy with carbon capture; a considerable expansion in biogas and electrolytic (clean) hydrogen; alongside an ambitious energy efficiency programme, and ramping up the use of energy storage and other flexible technologies. The fundamental benefit of these renewable, clean technologies is they do not rely on importing expensive fossil fuels from countries and regimes around the world that do not share our values and are subject to volatile geopolitical risk. The more diverse renewable energy system we can build, the more resilient to international pressures our system will be.

3. 'If renewables are cheaper than gas, why are government subsidies even needed?'

There are a wide range of renewable energy technologies, some of which are relatively new and require different infrastructure to fossil fuel production and distribution, making the upfront capital costs higher for some new projects than comparative fossil fuel plants. To provide long-term stability and certainty to attract investment into the renewable sector, government uses a variety of schemes and subsidies.

Onshore wind and large scale solar in the right locations are already cheaper than fossil fuel options but are blocked from being developed by planning rules and electricity grid constraints.

Government incentives, such as Contracts for Difference (CfDs), offer a floor price for a specified period, ensuring investors a guaranteed return, however if market prices exceed the CfD price, the renewable electricity generator pays back the

difference to bill payers. In doing so both the generator is protected from the volatile price changes in the energy market and consumers are protected from overpaying for the generation. Once the CfD term ends, generators receive the prevailing market price. Green levies are charged to enable power grid updating and pay for energy efficiency (and legacy renewables generation support), a key component of ensuring our energy system is futureproofed and resilient against external shocks. The CfD scheme has been very successful in bringing down project costs for new renewables such as offshore wind and this is where such public support provides long term dividends.

Renewables such as wind and solar are now cheaper than new build gas and will get cheaper. Advances in technology, economies of scale, and increased investments have significantly reduced the costs of renewable power. In the last few years, the cost of electricity from renewables has fallen substantially, often undercutting fossil fuel prices. As innovation continues and production scales up, the trend is expected to persist, making renewables an increasingly economical choice compared to gas.

There are several subsidy-free solar farms operating already in the UK, showing that if structured correctly, government incentives pump prime the market and then are not needed in the long term. Indeed, [data from Berkley University](#) shows that globally, solar panel costs have come down by 70% in ten years (2013 to 2022), and this trend continues.

4. 'The cost of Net Zero outweighs the benefits to the UK economy'

The UK's net zero economy grew by 9% in 2023, in stark contrast to the wider economy's stagnation, with GDP growth at just 0.1%. [The latest research](#) indicates that investments to achieve net zero could create approximately 250,000 full-time equivalent jobs by 2030. This includes 150,000 direct jobs and a further 100,000

indirect jobs in the construction, installation, and operation of new technologies, as well as jobs further up the UK supply chain, such as manufacturing.

Successive governments have recognised that transitioning to renewable energy is not only essential for the climate but also economically beneficial. As the UK accelerates the deployment of renewable energy and reduces associated costs, it reaps numerous benefits: job creation nationwide, economic regeneration in coastal and rural communities, investment in supply chain companies and new manufacturing, lower bills for families and businesses, and enhanced energy security.

[New analysis](#) shows that even in the current high-cost environment, the UK can achieve net zero cost-effectively, minimising expenses for individuals and the public purse, while also providing other benefits such as improved homes, reduced bills, more jobs, and lower carbon emissions.

Focusing solely on the initial costs of adoption overlooks the significant savings that low-carbon technologies offer to households and businesses, especially when replacing ageing boilers or vehicles down the line. Additionally, any cost/benefit analysis must factor in the impact of climate change on health and productivity. For example, studies have shown that air pollution alone currently costs the economy and the health service [over £20 billion a year](#). Investing in renewables and clean tech can mitigate against these issues, which are only going to become more onerous if we do not tackle them now. In political discourse these important wider societal costs that can be avoided are not often described clearly enough to show the true benefit to the public realm of renewable energy and clean technologies.

5. 'Why are we sacrificing the UK's best agricultural land to build renewable energy infrastructure'

Regarding food security concerns, the risk that solar energy facilities could be installed on high yield agricultural land is often brought up. If all solar farm projects in planning were built, they would only take up a tiny fraction of all the UK's agricultural land (using less land than [the UK's golf courses](#), as of Summer 2022).

Existing planning guidance guarantees that the highest quality agricultural land is not built on, takes into account cumulative development concerns, and ensures that the solar industry works closely with the agricultural sector and complements farmers both in terms of diversity of revenue and agrivoltaics.

More broadly, dual-use solar farms, also known as agrivoltaics, agrophotovoltaics, or agrisolar, are areas of land that are used for both solar panels and agriculture. This approach offers the opportunity to reduce solar operation costs while simultaneously creating new pollinator habitats or grazing land. This, in turn, strengthens local economies and regenerates regional ecology, biodiversity and soil health.

It's important to recognise that solar energy facilities address climate change, which is the single biggest threat to UK food security. According to DEFRA statistics, climate change could reduce the UK's stock of high-grade agricultural land by nearly three-quarters by 2050 if left unchecked.

Beyond solar infrastructure, there is also recognition of the need to use land to grow more domestic bioenergy feedstocks in the UK to meet our low carbon energy demands. The Climate Change Committee previously highlighted the need to expand the planting of energy crops to around 23,000 hectares per year. However, again this does not need to compete with high quality agricultural land. Energy crops, when done correctly, can be built into sustainable farming practices that encourage rotation of crops.

In addition, innovative biomass feedstocks including short rotation coppice, willow and miscanthus are all suitable for low quality land where food production would not be commercial. Growth of such crops can also provide additional environmental and social benefits, including carbon fixing in the soil, flood mitigation and increasing biodiversity when done sustainably. All of this adds additional revenues and benefits to farmers and landowners where it complements, not replaces, food security.

6. 'The infrastructure needed for Net Zero will destroy our countryside'

As demand for electricity increases, and the UK transitions to a decarbonised energy system, more infrastructure, like pylons, is required to carry power from where it is generated, like offshore windfarms, to where it is needed. The Electricity Systems Operator [reports](#) that the UK's electricity demand will grow by 64% between now and 2035. This growth must be powered by green energy, which will bring jobs, opportunities, cheaper bills and economic growth to communities and businesses across the UK.

At the same time however, fossil fuel plants are being closed, such as coal power plants with towering smokestacks and cooling towers. Highly polluting fossil fuel infrastructure being demolished and removed from skylines is a direct result of our energy transition policy and the success of renewables, and is a factor that is often overlooked in this debate.

In addition, the requirement for each region to have a Local Area Energy Plan (LAEP) puts the emphasis on local and regional energy planning to use the appropriate resources in the area and to match supply with demand locally, to enable localised solutions and reduce the need for transmission infrastructure where possible.

We also believe there is scope for more use of flexibility resources, such as energy storage and DSR, to avoid or reduce the need for new grid infrastructure, alongside innovations such as smart, flexible EV charging and heat pump use.

Pylons are typically used to transmit electricity because they are the cheapest and most flexible solution, compared to offshore or underground equivalents.

Underground and offshore cables may have greater ecological impact during construction, and are harder to access for maintenance and repair, the costs of which may be passed on to the customer. A single overhead line can carry an equivalent amount of power as two or three underground cables.

The overhaul of the grid will be the most significant transformation of the electricity network since the 1950s. This process will bring with it considerable changes that will require significant political leadership and open, honest discussions about the built-in challenges. In these discussions, it will be crucial to keep the bigger picture in mind: these changes will ultimately lead to a cheaper, cleaner, and more reliable energy system for the entire country, and will combat climate change, that ultimately poses a far greater threat to the countryside and wildlife.

7. 'Why should the UK pursue net zero and renewables when it responsible for less than 2% of global emissions'

Despite being responsible for less than 2% of global emissions, the UK's pursuit of a low carbon society is vital for economic growth, public health, environmental protection, global influence, legal commitments, technological advancement, climate risk mitigation, and moral leadership.

Transitioning to a green economy can create jobs, drive innovation, and stimulate economic growth. Renewable energy enhances energy independence by reducing reliance on imported fossil fuels, and over time, it can be more cost-effective than fossil fuels. Reducing emissions improves air quality, leading to better public health

and lower healthcare costs. It also helps protect ecosystems and biodiversity by reducing pollution and habitat destruction.

The UK can leverage its influence to encourage global sustainability practices, reinforcing its position as a leader in international climate policy. Proactive steps in climate action can strengthen the UK's role in global negotiations. The UK is committed to the Paris Agreement. The UK's Climate Change Act sets legally binding targets to achieve net zero by 2050, necessitating significant emission reductions. Only by leading from the front, and setting an ambitious global agenda, can the UK credibly hope to influence other countries to decarbonise too.

Investing in renewable technologies positions the UK as a hub for green innovation and development. Leading in green tech can open new markets for UK businesses, boosting export opportunities.

Reducing emissions helps mitigate the severe economic and social consequences of climate change, enhancing the UK's resilience and adaptation capabilities. The UK has a historical responsibility due to its early industrialisation and past emissions. By taking action now, the UK can address its historical impact and set a strong example for other nations.

8. 'The Cost of moving to an EV is unachievable for most people'

The upfront cost can be higher at present for many models of EVs, but there are a number of new EV models coming to market soon, such as the Dacia Spring, priced from £15,000, and there is a range of new manufacturers to the UK bringing cheaper models.

At the same time, there is a burgeoning market for second-hand models, with over 100,000 cars listed in the past year and this is feeding through to lower prices on second hand cars, the majority of car sales in the UK.

Overall, sales of EVs grew faster than any other vehicle type in the past quarter, up over 17%, showing the popularity of EVs.

The lifetime cost of an EV compared to an internal combustion engine (ICE) vehicle must also be taken into account. Tusker Direct, a UK leasing company with 16,000 EVs, estimates that their EV maintenance costs are 30% less than petrol and 60% less than diesel. Data from a survey by BookMyGarage.com in Feb 2023 showed that overall average maintenance bills (including MoT tests, servicing and repairs) cost 43% less for EVs compared to other fuel types. Data now shows that EVs are cheaper to maintain than ICE.

The REA has partnered with FairCharge to publish a comprehensive EV myth busting report, which can be accessed [here](#).

9. 'The cost of moving to a Heat pump is too great for most households'

The cost of heat pump installations varies significantly depending on the size and nature of the property. The cost of the technology is also decreasing, with some installers now saying they are reaching a level where they can install heat pumps on a par with a new gas boiler. Current government grants, like the Boiler Upgrade Scheme and the zero rating of VAT on installation, have helped more and more households afford the capital expenditure of installation. Furthermore, when designed and installed correctly, along with other energy efficiency materials, the running costs of heat pumps can be significantly lower than paying for fossil counterparts like oil or gas saving consumers money over time.

In addition, it is important to ensure the right renewable technology for the right situation. Heat pumps will work in most properties, however some properties requiring high heat loads due to low energy efficiency standards, especially in off gas-grid rural areas, may be better suited to decarbonising using a biomass boiler or renewable liquid gasses. These bioenergy solutions already provide a significant

proportion of the UK's decarbonised heating and provide the most cost-effective solution in such situations.

Heat Networks, whereby a number of households are connected to one heat source, will also become increasingly important. Such networks can be powered by a range of technologies, including deep geothermal that can provide consistent long term affordable heat.

There are now options for financing installations of renewable heating (and other) technologies – for example [Octopus Energy have a fixed price £500 upfront cost](#) and then regular repayments, and [Aira offer monthly payments](#) with no upfront costs.

About the REA

The REA is working towards a future built on renewable energy and clean technology. We represent over 500 member companies from across the renewable energy, recycling, energy storage and electric vehicle sectors. We influence and inform whilst we champion and empower our members; so they are profitable, sustainable commercial businesses. Together we are decarbonising the economy.

Get in touch

Rollo Maschietto, Public Affairs Manager, REA

Email: rmaschietto@r-e-a.net

General Election

Read our manifesto [here](#).

Read our First 100 Days action plan [here](#).