

Large scale energy projects and food security

Westminster Hall debate briefing

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The UK's energy targets

- To tackle climate change and reach the UK's target of net zero carbon emissions by 2050, we must transition towards renewable sources of energy, like solar and wind. The government's Clean Energy Mission aims for a zero-carbon electricity grid by 2030.
- To achieve this, the UK government has a target to triple our solar energy by 2030, from 15.5GW today. This would set us on course for the existing target for 70GW by 2035, set out in the last government's [British Energy Security Strategy](#). Currently, 2/3 of the UK's solar is in solar farms, with 1/3 on commercial and residential rooftops.
- Solar is consistently the most popular form of renewable energy. The government's [Public Attitudes Tracker](#) in spring 2024 found 88 per cent of people supported solar, making it the most popular form of renewable energy. Eighty three per cent of people would be 'happy' or 'very happy' to have a solar farm in their local area.

Solar and farming

- It is often suggested that solar farms are a threat to farms in the UK, as most are installed on agricultural land – however, the evidence shows this is not the case.
- [Solar farms are generally developed on low grade agricultural land](#), which does not produce as much food. Developers use the Agricultural Land Classification (ALC) metric to assess this and many solar farms are on 3b land, one of the less productive grades.
- Meeting UK Government plans to increase solar energy to 2035 would mean that solar used only [0.3% of UK land](#). This is 0.5% of the land currently used for farming and roughly half the area currently taken up by golf courses.
- [Food production can continue alongside solar panels in many cases](#), such as under agrivoltaics – essentially solar panels on stilts, where crops are grown below. Many solar farms are home to grazing animals, like sheep, which live alongside the panels.
- [Many farmers find that leasing some of their less productive land to a solar energy company provides a reliable income](#), which compliments their existing activities.

Climate and food security

- A much greater threat to UK food security is posed by the climate and nature crises. Climate change and biodiversity loss are identified as the greatest threats to domestic food security by the government's [2021 UK Food Security Report](#).
- Climate change is already having a huge impact on food production here and now, both in the UK and overseas. Shortages on supermarket shelves in recent years have been caused by [wet weather](#), [heatwaves](#), and [increased pests and diseases in the UK](#), as well as the impact of extreme weather overseas reducing imports.
- Food production in the UK is expected to be [significantly reduced in 2024](#), following the wettest 18 months since records began in 1836. This year, England will produce 26 per cent less wheat than in 2023. This lost production could have fed 18 million people.
- [Green Alliance analysis](#) shows the loss of wheat in 2024 alone is 5,761 times greater than the amount of food production that would be lost to the three new solar farms approved in July: Sunnica, Gate Burton and Mallard Pass which will add a combined 1.4GW.

Suggested interventions

- When will the government publish the Land Use Framework, setting out how to balance the use of land for food, nature and climate?
- How does this government plan to speed up connections to the National Grid, which are currently a major barrier to farmers diversifying their income through renewable energy?
- How is the government helping farmers to become more resilient to climate change and its impacts?