

COUNTRYSIDE ALLIANCE BRIEFING NOTE: IMPACT OF ELECTRICITY INFRASTRUCTURE ON RURAL COMMUNITIES

Westminster Hall, John Lamont MP

Tuesday 21 October 2025

- **The Countryside Alliance recognises the importance of a resilient, modern electricity network but insists that the transition to net zero must not come at the expense of the rural environment or the wellbeing of its communities.**
- **Accepting that the drive to net zero involves costs as well as benefits, rural Britain must not be required to bear burdens that are impractical and disproportionate. Other important objectives, principally food security, must not be sacrificed.**
- **Responding to a consultation by the National Energy System Operator (NESO) on its proposed Electricity Transmission Design Principles (ETDP), the Countryside Alliance has called for clearer safeguards for rural communities, landscapes and local economies as the UK expands its electricity grid.**
- **The Countryside Alliance also responded to the government consultation on the National Policy Framework in September 2024 calling for a “rooftop-first” approach to solar installations. We argued that solar panels should be placed on the rooftops of new homes, commercial buildings, and car parks before using farmland or greenfield sites. This would protect valuable agricultural land and natural spaces while maximising the use of existing infrastructure.**
- **For the government’s planned ban on the sale of new petrol and diesel cars in 2030 to be feasible, it must be made possible for rural areas to participate. This will require an adequate network of electric vehicle charging infrastructure and a robust enough electricity distribution grid infrastructure to support the additional demand. Similarly, any future proposal for road pricing must be structured in a manner fair to rural communities and their transport needs.**
- **Other government priorities, including the drive towards net zero carbon emissions, can only be sustained as long as there is food on the shelves. The interests of food security require that food production must continue to be the primary use for productive farmland.**

Background

- **The National Energy System Operator (NESO) is currently consulting on its proposed Electricity Transmission Design Principles (ETDP), which will underpin the future build-out of the high-voltage electricity transmission network, characterised by overhead power lines supported by electricity pylons.¹**

¹ NESO, [Electricity Transmission Design Principles: Consultation on Principles](#), 09.25

- The Countryside Alliance has responded to the consultation calling for clearer safeguards for rural communities, landscapes and local economies as the UK expands its electricity grid.
- The Countryside Alliance is also concerned about the trend of situating solar farms on productive agricultural land. Leaving less land available for agricultural production presents a threat to UK food security. Tenant farmers have been threatened with eviction so that land can be used for solar, and further pressure has been brought to bear on land values. Solar farm developments also tend to cluster in areas where a nearby substation is available. This results in a disproportionate impact on affected communities.

NESO Electricity Transmission Design Principles (ETDP) consultation

- The Countryside Alliance is an invited participant in NESO's societal forum for farming and land use, using that platform to advocate constructively for the interests of rural communities as the energy transition continues.
- The draft Electricity Transmission Design Principles are currently under consultation by NESO. The creation of this document was recommended in the Transmission Acceleration Action Plan, which was proposed in 2023 by the Electricity Networks Commissioner and subsequently adopted by the government.
- The document is intended to communicate to possible transmission development stakeholders the type of infrastructure they can expect to be installed in different types of terrain. In its scope are all new electricity transmission projects in Great Britain, identified from January 2026. These include overhead lines, underground cables, cables originating offshore, substations and connections between them.²
- The Countryside Alliance supported the emphasis placed in several of the draft principles on protections for landscapes, natural environments and community amenity. We welcomed preferences they expressed for brownfield over greenfield development, using natural screening and siting substations sensitively to minimise disruption to landowners.
- However, we warned that the current draft does not fully account for the real-world impacts of overhead power lines and pylons on rural areas. Findings from Countryside Alliance Wales' recent infrastructure survey showed that 93% of respondents opposed pylons in their area, citing impacts on tourism, business confidence and mental wellbeing. These consequences, we argued, should be recognised as more than aesthetic concerns and built explicitly into future design assessments.
- The Alliance expressed concern about the principles' "starting presumption" in favour of overhead transmission lines, which is to be reversed for lines crossing designated landscapes. We called for clearer guidance on when these presumptions might be overturned, particularly in landscapes of high local or national value, and for greater recognition of undesignated yet much-loved countryside.
- We also questioned the reliance on traditional steel lattice pylons, warning against stifling innovation. NESO should, we argued, support research into less visually intrusive and more sympathetic designs already being adopted elsewhere in Europe.

² NESO, [Electricity Transmission Design Principles: Consultation on Principles](#), 09.25

- The response called for earlier and more structured community consultation, with clear expectations about how feedback should shape projects and how communities can challenge deviations from the principles.
- The Alliance also argued for the clustering effect of solar farms development on agricultural land close to substations to be “designed out”. Substation placement, we argued, should explicitly consider the likely secondary impacts of associated infrastructure. Such a requirement would help protect agricultural productivity, local jobs and national food security.

Solar energy developments

- In a response from 28 April 2025 to a parliamentary question the Energy Minister, Michael Shanks MP, said:

“Planning guidance makes clear that, wherever possible, solar developers should utilise brownfield, industrial, contaminated, or previously developed sites. Where the development of agricultural land is shown to be necessary, lower-quality land should be preferred to higher-quality land. The total area of land devoted to solar panels is very small. As of the end of September 2024, ground-mount solar PV panels covered an estimated 21,200 hectares (52,000 acres), which is only around 0.1 per cent of the total land area of the UK.”³

- The response on planning guidance relates to the National Policy Statement published in January 2024 under the previous government, indicating that government policy on the use of agricultural land for solar infrastructure stands unchanged between governments.⁴
- In a response the following day to a further question on the use of the best and most versatile agricultural land, he said:

“There is no set maximum amount of best and most versatile land that may be used in a nationally significant infrastructure development. Each case is judged on its own merits in line with the requirements in the Planning Act 2008 and relevant policy, such as the National Policy Statement for Renewable Energy Infrastructure (EN-3)...”⁵

- The Countryside Alliance responded to the government consultation on the National Policy Framework in September 2024 making a case for a “rooftop-first” approach to solar installations as part of the government’s bid to boost renewable energy. We argued that solar panels should be placed on the rooftops of new homes, commercial buildings, and car parks before using farmland or greenfield sites. This would protect valuable agricultural land and natural spaces while maximising the use of existing infrastructure.
- On 17 January, Housing Minister Matthew Pennycook MP responded on behalf of the government to the New Homes (Solar Energy) Bill, a Private Member’s Bill brought by Max Wilkinson MP (Cheltenham, LD) and supported by the Countryside Alliance. He said:

“The Government are extremely sympathetic to the intention behind the Bill, namely to significantly boost the deployment of rooftop solar. That aim is clearly shared widely across the House, and for good reason... However, we cannot support the Bill

³ UK Parliament, Written questions, answers and statements, [UIN 45105](#)

⁴ UK Parliament, Written questions, answers and statements, [UIN HCWS466](#)

⁵ UK Parliament, Written questions, answers and statements, [UIN 46187](#)

today. That is because the Government already intend to amend building regulations later this year as part of the introduction of future standards that will set more ambitious energy efficiency and carbon emissions requirements for new homes. The new standards will ensure that all new homes are future-proof, with low-carbon heating and very high-quality building fabric.”⁶

- In June, the government confirmed that the Future Homes Standard, to be published this autumn, would require new build homes to have solar panels by default and also have low-carbon heating, such as heat pumps and high levels of energy efficiency.⁷
- An earlier report about the plan drew criticism from the Home Builders Federation, however, that the proposal new homes to offset 40% of their carbon footprint are “unrealistic” and could cause delays to building. The Federation suggested that an alternative offsetting target of 20% would be more viable.⁸

Electric vehicle infrastructure

- The electrification of road transport remains key to the government’s plans to achieve net zero carbon emissions, particularly in view of its announcement in April that, following a consultation, it would reinstate a ban on the sale of new petrol and diesel cars in 2030.⁹
- A survey by the price comparison website Quotezone in July 2024 found that 57% of respondents had no current plans to adopt EV technology, with 21% citing inadequate charging infrastructure as the primary barrier to adoption.¹⁰
- The credibility of the government’s proposed 2030 ban depends upon the adequacy of the charging network and the underlying electricity distribution grid.
- Falling fuel duty receipts as a result of road transport electrification will inevitably prompt calls for some form of road pricing to compensate for the loss of revenue to the Exchequer. The government is adamant that it has no plans to introduce road pricing,¹¹ but supposing that position to be unsustainable in the long term it is essential that any such scheme recognises and accounts for the requirement for those living in rural areas to take more, longer journeys.

Countryside Alliance position

- The Countryside Alliance recognises the importance of a resilient, modern electricity network but insists that the transition to net zero must not come at the expense of the rural environment or the wellbeing of its communities.

⁶ HC Deb, 17.01.25, [c651-652](#)

⁷ DESNZ/MHCLG, [Rooftop solar for new builds to save people money](#), 06.06.25

⁸ Financial Times, [Installing solar panels on all new homes will slow housebuilding, industry warns](#), 06.05.25

⁹ DfT, [Consultation outcome: Phasing out sales of new petrol and diesel cars from 2030 and supporting the ZEV transition: summary of responses and joint government response](#), 07.04.25

¹⁰ Auto Express, [17.07.24](#)

¹¹ HL Deb, 18.09.25, [c2394-2397](#)

- Electricity pylons will always struggle to attract public support. Undergrounding may be perceived as costlier and less convenient, but if significant numbers of projects continue to spawn local opposition leading to series of legal challenges, that calculation may not hold true. We have urged NESO to look again at the feasibility of underground cable technologies, including cable ploughing and underground HVDC, being deployed for transmission purposes in preference to pylon-supported overhead lines.
- Solar energy is an important part of the UK's sustainable energy mix and we must prioritise the growth of solar projects on brownfield sites, existing roofs and new-builds, thereby reducing the pressure for solar farms on productive agricultural land.
- The clustering of developments around sub-stations has consequences for local landscapes and amenities, and that cumulative effect intensifies the harm caused. We have urged NESO to take steps to address this trend in its principles concerning the siting of new substations.
- Responding to the 01 May report of a possible mandate to fit solar panels during construction on almost all new homes in England within two years, Sarah Lee, Director of Policy at the Countryside Alliance, said:

“We welcome this move to mandate rooftop solar on new homes, but urge the government to go further. A rooftop-first strategy must include commercial and public buildings, which offer vast potential for clean energy generation. Solar deployment should not come at the cost of our countryside or food security when so much suitable roof space already exists.”¹²

- For a ban on the sale of new petrol and diesel cars in 2030 to be feasible, it must be made possible for rural areas to participate. This will require an adequate network of electric vehicle charging infrastructure, including at people's homes, and a robust enough electricity distribution grid to support the additional demand, particularly at peak times such as when people have returned home from work. Similarly, any future proposal for road pricing must be structured in a manner fair to rural communities and their transport needs.
- Other government priorities, including the drive towards net zero carbon emissions, can only be sustained as long as there is food on the shelves. The interests of food security require that food production must continue to be the primary use for productive farmland.

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¹² Countryside Alliance, [Government mandates rooftop solar on new homes](#), 01.05.25