By email to: netzeroreview@beis.gov.uk

20 October 2022

Chris Skidmore MP
Chair, Net Zero Review
c/o BEIS

Dear Mr Skidmore
Review of Net Zero: call for evidence

CPRE is the countryside charity that campaigns to promote, enhance and protect the countryside for everyone's benefit, wherever they live. We are pleased to respond to this important consultation. With a local CPRE in every county in England, we work with communities, businesses and government, nationally and locally, to find positive and lasting ways to help the countryside thrive.

A key part of our vision is a low carbon countryside that mitigates and adapts to the impacts of the climate emergency. Decarbonising our energy system is an essential part of reaching net-zero GHG emissions. We are calling for a transition to a decentralised, zero carbon energy system that empowers and benefits local communities, and is delivered in harmony with our natural environment and landscapes.

We are pleased to respond to this open consultation and call for evidence. We welcome the Government's continued commitment to reaching net zero by 2050 and understand how the changed context in 2022 has led to the need to review its approach. We are clear that it is economically efficient to meet the 2050 target and that there are also strong net economic benefits for faster action and further measures, which we outline below. We have focused our responses on the overarching questions and those related to land use, local delivery and the planning system.

Please do not hesitate to contact us if you would like to discuss any of the points raised here.

Yours sincerely,

Paul Miner MA MRTPI FRGS
Acting Director of Campaigns & Policy

Review of Net Zero: call for evidence
A submission by CPRE, the countryside charity
October 2022
Overarching questions

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

We are concerned that this question is unhelpfully phrased. Whilst economic growth is clearly of importance, the type of target and how it is measured is problematic if it does not take into account the externalities associated with the growth model. It would not therefore be satisfactory to meet a 2.5% growth per annum target without also addressing and reversing environmental impacts such as biodiversity decline, natural/physical impacts such as flooding and extreme events, changes in agricultural productivity, effects on health, well-being and so on. These all have serious costs to the UK economy; therefore early spending (investment) in anticipatory strategies means less impacts (costs) later in terms of adaptation and mitigation.

As others (CREDS, 2021) have pointed out 'UK Government policies are assessed for their "economic efficiency", rather than their broader value to both society and net-zero goals'[1] and the CREDS energy demand study goes on to state that policies need to be assessed against wider quality of life and sustainability goals. We concur with this view and therefore find that an economic growth target of 2.5% a year is too narrow and simplistic.

However we are clear that, even with the current, narrow view of economic efficiency, early and strong investment to address meeting net zero goals is economically efficient in itself, given its impact in reducing later, higher costs of transition (including impact disbenefits that can be reduced or avoided). Although the need for action now is cross-sectoral, Government must take a key role in investing in low carbon innovation and promoting radical behavioural change; market forces alone cannot deliver a rapid switch to low carbon systems.

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

The most significant challenges are around travel and the resultant high energy use in transport (including aviation), rising energy demand, continuing (or even extending) the use of fossil fuels, poor practice in farming and land management (see response to q.5), and low resource efficiency in the industrial sector.

These headline issues are exacerbated by policy obstacles that hamper the need for the transformational changes in strategy and governance that are needed for a more rapid transition to net zero (we have suggested a target of 2045 at latest[2]). As a campaigning organisation, with a focus of working through the planning system (see q.26), our principal concerns are with the role of central and local government policy in securing net zero.

[1]https://www.researchgate.net/publication/355105825_The_role_of_energy_demand_reduction_in_achieving_net-zero_in_the_UK
[2] https://www.cpre.org.uk/resources/greener-better-faster/

As the countryside charity, at the heart of our approach will also be the need for an equitable transition for rural areas and their communities. We believe that the countryside's assets, and therefore role in delivering net zero, provide an unrivalled opportunity to ensure the necessary changes help create a more resilient and diverse countryside. This would mean a wider spread of benefits across the country and countryside, assisting the national drive for levelling up.

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 pro-business?*

We support the principle of 'smart growth'[3], including the prioritisation of suitable urban brownfield sites, increased density, co-location of homes, workplaces and services and the best use of existing infrastructure, at the same time as protecting and enhancing open spaces for all benefits they provide. There has consistently been enough brownfield land available and suitable for 1 million homes in recent years, and often more in some years. The use of brownfield land is often much more resource and energy efficient than using greenfield land, as brownfield sites have better links to existing infrastructure. A strategic approach to development should integrate housing with energy and infrastructure planning across different spatial scales.

We are also keen to promote solutions that are pro-rural growth and pro-rural business whilst addressing the biodiversity and climate emergencies. Nature-based solutions and more sustainable land management can both capture carbon emissions and restore natural environments. Renewables done well, in the right place and with community support and energy efficiency can deliver big savings of both carbon and money for rural homes and businesses. Promoting sustainable public transport and active travel will lower emissions while also improving well-being and reconnecting our market towns with increasing isolated rural communities.

In order to make these changes, CPRE recommends the development of an integrated, low carbon land use strategy for England and associated action plans as a matter of urgency to inform the changes in land use and management required. This should form part of the national Net Zero Strategy to 'build back greener'.

The land use strategy would identify spatially where delivery of multiple public goods, including ecosystem services, can be optimised or will be constrained. The strategy would provide a framework for cross-government approaches and empower multi-agency partnerships for delivery. It should inform targeting and use of policy levers including any Environmental Land Management Scheme incentives, reforms to the planning system, and significant infrastructure investment decisions.

Transformational change is required across the country, touching every sector and community, and we will embrace this change positively and holistically, so that future generations will enjoy the biologically rich, fertile countryside that we celebrate for its

[3] www.smartgrowth.org

intrinsic value as much as we do for providing us with key ecosystem services such as food, fresh water, and health and well-being benefits.

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

In terms of headlines (we say more below in answer to questions 24-28), our clear ask is for a more consistent planning and regulatory framework for carbon reduction. CPRE believes that the planning system has a crucial role in delivering the net-zero and green energy transition equitably and effectively.

The planning system needs to be re-purposed to deliver net zero carbon as a priority, based on a nuanced understanding of multi-purpose/multi-outcome use of land. This will require action at all levels from national, sub-national/city region, local authority and neighbourhood planning with a core of strategic, integrated planning linking the different levels of delivery. Low-carbon place making (in terms of new infrastructure, and re-modelling existing development) is key to avoiding the perpetuation of high energy lifestyles.

Fiscal incentives will also need to be re-balanced allowing for greater investment in distributed/community energy and more community ownership of commercial-scale renewables. Further support and action will also be needed in lowering energy demand (see question 5, section ii below).

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

(i) Food, farming and forestry

CPRE supports calls for a stronger focus on net zero within food, farming and forestry policies. The Climate Change Committee (CCC) has highlighted emissions from agriculture and food as one of the biggest holes that needs to be urgently plugged in order to reach net zero[4]. We have been particularly concerned by recent reports suggesting that the government will scale back its proposed new environmental land management schemes (ELMs), and/or dilute the principle of 'public money for public goods' that has underpinned ELMs until now.

Strategic decisions will be required about the extent, type and location of the changes that will be needed, such as woodland and hedgerow creation, rewetting of peatlands as well as which areas of coastal land to protect, manage differently or allow to erode. These decisions will also need to factor in the implications of the significant reduction in livestock numbers proposed by the CCC, and CPRE accepts that livestock numbers may need to decline nationally. CPRE would also highlight the particular need to understand and effectively

[4] Burrows D, 'Why is farming policy absent from the net zero strategy?', *ENDS report* (https://www.endsreport.com/) article dated 13 October 2022.

address carbon emissions from intensively managed lowland peatland, both for arable and livestock production[5].

CPRE urges that the Review calls for:

- significant changes in land use and land management in the agriculture, horticulture, forestry and game management sectors. This will require public policies in these areas, including but not limited to ELMs, to discourage greenhouse gas emissions and rewards carbon storage and sequestration, accompanied by robust advice and training;
- changes in land use and land management to be carried out in a way that enhances landscape character and nature and supports thriving and sustainable rural economies and communities. In particular the government should aim for a 40% increase in the length of England's hedgerow network by 2050 as called for by the CCC, as a means of both increasing carbon storage[6] and maintaining and improving landscape character at the same time, without displacing food production. In some areas the landscape will change as greater diversity is reintroduced to maximise opportunities for climate mitigation and adaptation, harnessing natural processes. This should be in keeping with the underlying landscape character, enhancing biodiversity and conserving water resources and soils;
- changes in citizen and consumer behaviour and involving local communities, individuals and rural businesses in demonstrating good practice and raising awareness of the issues. This will be by reducing food waste, changes in diet, through involvement in community activities such as woodland management or tree planting, and promoting a greater understanding of the climate impacts of the way the landscape is managed. But all of these should, critically, be assisted in the final design of ELMs, and the proposed local nature recovery (LNR) element should be retained in order to help increase local influence over land management policies and outcomes.

In addition, ELMs will be the main financial vehicle by which the government can enact its manifesto commitment to enhance as well as protect the Green Belts around our largest towns and cities. Currently only about a quarter of all Green Belt farmland is covered by agri-environment schemes under existing farming policies; CPRE recommends that under ELM, this should rise to at least two thirds. Targeting ELMs to areas of Green Belt countryside would have a wide range of benefits, including in helping climate mitigation and adaptation in large urban areas[7]. Examples of such work can already be found in areas such as Enfield and Waltham Forest in north London, where new woodland and wetland has

[5] Evans, C., Artz, R., Moxley, J., Smyth, M-A., Taylor, E., Archer, N., Burden, A., Williamson, J., Donnelly, D., Thomson, A., Buys, G., Malcolm, H., Wilson, D., Renou-Wilson, F., Potts J. (2017*). Implementation of an emission inventory for UK peatlands*. Report to the Department for Business, Energy and Industrial Strategy, Centre for Ecology and Hydrology, Bangor.88pp.

[6] For evidence on carbon on hedgerows go to:
R Gregg, J. L. Elias, I Alonso, I.E. Crosher and P Muto and M.D. Morecroft (2021) *Carbon storage and sequestration by habitat: a review of the evidence* (second edition) Natural England Research Report NERR094. Natural England, York

[7] https://www.cpre.org.uk/resources/the-countryside-next-door/. Report published May 2022.

been created on Green Belt sites in recent years, as well as in the work of the Community Forest programme.

(II) Energy

The most substantial economic efficiencies are associated with lowering energy demand. As cited earlier (*op.cit.*, fn.1), the 2021 CREDS study has shown that curbing energy demand would lead to savings of £95 billion to £170 billion per year in 2050 by reducing the need to quadruple energy supply. This clearly underlines why it is necessary to set targets for reducing energy demand as well as targets for increasing capacity of low carbon supply (renewables). A stronger focus on appropriately scaled renewables (including maximising solar on buildings and previously developed land) will also be far more economically efficient than continued reliance on expensive oil, gas or nuclear, especially given the fast lead times of installing renewable technologies. Government figures from 2014[8] found 250,000ha of south-facing commercial roofs. The Building Research Establishment (BRE) studied the capacity potential of these roofs[9], and assumed that 50% of the total roof area could be put to use, i.e. 125,000ha. There is the potential to increase the current capacity of solar on roofs (estimated by the solar industry to be about 5GW) by many times.

At present, CPRE's view is that the development of solar energy is too dominated by the interests of some landowners and the industry. In particular the government has given the solar industry carte blanche to develop huge greenfield sites which damage our countryside and ignore the huge potential of roof-mounted solar. Community-led energy schemes remain a poor relation to commercial schemes, while vast, industrial-scale solar farms are now being pursued through the Nationally Significant Infrastructure Projects (NSIP) regime, which sidesteps local democracy in planning and is notoriously difficult for local communities to engage with.

As stated above, there needs to be a 'levelling up' in terms of enhanced support for smaller scale, distributed energy with a strong focus on community energy. Huge amounts of support have been given to industry through the Contracts for Difference scheme, which has been extremely effective in reducing costs of renewable supply at scale. Distributed (or decentralised) energy, where economic benefit is shared more widely within communities, could also be a key kick-starter within the levelling up agenda for currently less prosperous areas and deserves significant new funding. We believe this will be cost-effective as smaller schemes will likely be more fleet of foot and the enhanced social licence will mean faster and easier consenting.

In relation to new electricity infrastructure, studies for BEIS have shown that adopting an integrated approach for all offshore projects to be delivered from 2025 has the potential to save consumers approximately £6 billion, or 18 per cent, in capital and operating expenditure between now and 2050.[10] The more recent National Grid ESO

[8] Microsoft Word - UK Solar PV Strategy Part 1 Roadmap to a Brighter Future 08.10.13 (publishing.service.gov.uk)
[9] 123160-NSC-Solar-Roofs-Good-Practice-Guide-WEB.pdf (bre.co.uk)
[10] https://www.nationalgrideso.com/news/final-phase-1-report-our-offshore-coordination-project

Pathway to 2030 and Holistic Network Design strategy[11] goes some way towards realising these savings but need to be more ambitious to realise further improvements in economic efficiency and concurrent reductions in environmental and community impact, which will help regenerate and level up currently struggling local communities, especially in deprived coastal areas.

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

Again, significantly lowering energy demand (through efficiency, demand management, resource efficiencies and deep retrofits) is key to making energy security easier to achieve, in tandem with a focus on increasing renewable capacity and interconnector supplies. A shift in focus to a more renewables-based system and a quicker exit from oil, gas and nuclear supply will also provide a much more cost-effective and timely strategy to achieve net zero.

7. *What export opportunities does the transition to net zero present for the UK economy or UK businesses?*

The UK has already demonstrated huge, world class innovation in key areas of low carbon energy supply, notably offshore wind. Continuing momentum on offshore technologies (e.g. floating wind, tidal stream, wave energy) will allow for a more diverse distribution of power sources around our shores (necessary to help reduce intermittency) and provide development models for export. This also applies across the board on many low carbon techniques and technologies, including pioneering nature-based solutions. Setting challenging targets for faster achievement of net zero makes UK businesses strong leaders in delivery which other countries will need to follow.

Questions for local government, communities and other organisations delivering net zero locally

24. *What are the biggest barriers you face in decarbonising / enabling your communities and areas to decarbonise?*

Lack of local authority resources is a key issue as well as a lack of joined-up thinking. A return to sub-national strategic planning, based on a land use strategy (see question 2 above), would integrate delivery and allow resources to be allocated more efficiently. For example, many local authorities lack the expertise need to assess landscape capacity for low carbon energy, based on natural character areas or biodiversity constraints. Such work can better be done at a joint authority/regional/city-regional level. This would be far more cost-effective and allow for a much better integrated and holistic approach across multiple landscape areas (see also answer to question 27 below).

[11] https://www.nationalgrideso.com/future-energy/the-pathway-2030-holistic-network-design

The scale of the net zero challenge, highlighted locally by recent Tyndall Centre modelling studies[12], necessitates a radical re-purposing of planning for climate change, with concomitant resourcing.

The transition to zero carbon can be best enabled and delivered through a re-purposed land use planning system. However, this cannot happen without giving local authorities proper resourcing to plan for climate change.

25. *What has worked well? Please share examples of any successful place-based net zero projects.*

In our view, local, place-based success is about appropriate scale, a participatory approach to planning with the input and consent of the community, beneficial ownership and the provision of significant benefits in terms of low carbon supply, and environmental net gain (biodiversity and landscape). A number of schemes 'tick these boxes' but they are rare compared with large, commercially-led schemes which are often imposed on communities with insufficient social consent.

We have previously stated (our response to the proposed amendments to the Contracts for Difference scheme, May 2020) that best practice must involve a shift towards proactive community engagement for new renewable projects with a deliberative, iterative process that precedes design options and is genuinely responsive to alternative ways of delivering optimal capacity without significant detriment. This would go beyond usual current practice of pre-application discussion and/or presentation of a near finalised scheme, with little option of revision.

Local communities must be given access to the full evidence necessary to inform decision making as they shape their energy future, including more accurate and comprehensive tranquillity (including noise) mapping. They must not be placed under pressure to accept schemes that would cause undue harm to their local landscapes and amenity.

Local communities should be provided with relevant financial and practical support to allow them to plan their energy future and effectively contribute to the development of new renewable schemes in their area. This could be done, for example, through the community benefit schemes that are often offered in conjunction with large renewable energy schemes, although community benefits are an entirely separate issue from whether those schemes are also acceptable in planning terms. A good example of this is the Wadebridge Renewable Energy Network in Cornwall[13], which reinvests community benefit funds into local schemes relevant to energy or the environment. The government should promote direct community ownership of renewable energy schemes as the 'gold standard' arrangement for meeting the needs of local people.

Through 2021 and 2022 the MCS Foundation has funded a 'Community Energy Visioning' project, delivered by CPRE through pilots in North Yorkshire (2021) and then rolled out nationally in 2022. Through local participatory workshops (at a parish level) communities were engaged to plan a low carbon future for their area. All were enthusiastic to make their

[12] OpenCLIM - Tyndall Centre for Climate Change Research
[13] https://www.wren.uk.com/community-funds

parishes zero carbon and were happy to direct renewables development to appropriate sites in their parish, which were then illustrated (as if existing) in their vision document. Thus local people readily accepted landscape change in their local area, if it was done well. This process, if funding were extended nationally, could underpin a huge amount of delivery of distributed community energy, with strong social consent speeding delivery of vital low carbon infrastructure. We commend the process to BEIS and would be happy to share more information about this pioneering project.[14]

Finally, local research in Leeds has shown that boosting renewable energy generation capacity, although needed, should be secondary to the primary focus on demand reduction. The Leeds Net Carbon Zero Roadmap[15] ranked the most carbon-effective and cost-effective net zero measures. The resultant carbon-effectiveness table is totally dominated by retrofitting buildings for insulation and heating upgrades, and replacing car journeys with cycling, walking and buses. In terms of cost-effectiveness, the pattern is similar except that upgrades in industrial settings top the charts. In this context, on-site renewables are well down the list of priorities, although the sharp rises in energy prices may change that in future.

26. *How does the planning system affect your efforts to decarbonise?*

The planning system is currently not fit for purpose for meeting net zero at speed, in terms of energy and infrastructure provision. The planning system for new energy supply is cumbersome, both locally and nationally, and does not promote effective public engagement or participation. Previous sub-national approaches, based on landscape capacity, set nuanced targets for different renewable energy technologies.[16] This approach has failed to migrate to either local or city-regional planning. Therefore we must devolve decision-making and funding for the energy transition, recognising the value of delivery by more democratically engaged bodies, particularly local authorities, city regions and other new devolved bodies. Also, a more strategic and landscape-based approach is needed, as set out in our response to question 27 below.

More worryingly, energy development planning is largely divorced from low carbon policy aspirations. In particular, despite a broad consensus that energy efficiency and demand reduction are pre-requisites for all other energy measures to be effective, the planning system is being geared to deliver developments for energy development and infrastructure but is doing very little to address demand reduction (see answers to overarching questions earlier). Homes and commercial buildings continue to be built that will require costly retrofitting to become zero carbon, and there is no meaningful retrofitting strategy either for insulation or for on-site renewables such as solar roofs.

CPRE recommends that the government urgently takes these strong, positive steps:

[14] https://www.cpre.org.uk/resources/loftus-community-energy-vision/
[15] https://www.leedsclimate.org.uk/leeds-carbon-roadmap
[16] For example Microsoft Word - 110322_LGYH_Part_C_final report_Issued_.docx (ryedale.gov.uk)

- A sequential planning policy, supported with investment incentives, should make commercial roofs and brownfield sites – and not greenfield sites - the clear locations of choice for renewable energy;
- Reducing overall demand for energy through efficiency measures in buildings, industry and transport, should be a national priority – this is also crucial to tackling fuel poverty and creating green jobs;
- Individual and cumulative impacts on landscapes and farmland should carry substantial weight in all planning decisions;
- Greenfield renewable applications must have a binding requirement to contribute to Local Nature Recovery Strategies;
- Direct financial support should be given to community energy schemes, which represent the gold standard for renewables done well.

27. *How can the design of net zero policies, programmes, and funding schemes be improved to make it easier to deliver in your area?*

Thus far, most local planning authorities have not set policies and strategies consistent with meeting their statutory duty to help address climate change.[17] Local plans do not set out targets which would align with national requirements such as CCC carbon budgets, and the contribution, if any, towards achieving net zero is not a key criterion (referred to as a 'test of soundness') used when the Planning Inspectorate (PINS) examines plans[18]. Where, exceptionally, local authorities have proposed radical policies aimed at delivery of net zero, they have bizarrely fallen foul of PINS, such as in the recent example of a proposed garden village in West Oxfordshire.[19]

As stated in part above, further devolved powers, strategies and plans at both city region (and equivalent) and neighbourhood tiers will be needed in addition to radically revised Local Plan policies.

Any strategic approach must be underpinned by the key principle to minimise landscape impact. Energy decisions that impact on land use, landscapes and rural communities must be informed by sustainable development principles and landscape character considerations, flowing from the UK's commitments within the European Landscape Convention[20]. There are some potentially encouraging examples emerging of local authorities taking such an approach, for example in capacity mapping work recently done by South Gloucestershire Council.

Renewable energy roll-out should follow a hierarchy of landscape capacity, following landscape character assessment, and carried out at an appropriate sub-national scale where National Character Areas can enable allocations to be rooted in sensitivity to change. Sensitivities in relation to biodiversity, cultural heritage and amenity must also be respected, along with nationally designated landscapes. Clearly urban and brownfield capacity should be prioritised, especially to reap the decentralisation benefits of locating

[17] Climate_Challenge.qxd (tcpa.org.uk)
[18] https://www.cpre.org.uk/resources/climate-emergency-time-for-planning-to-get-on-the-case/
[19] https://tcpa.org.uk/pins-assault-on-an-exemplary-net-zero-planning-policy/ dated 6 July 2022.
[20] European Landscape Convention (naturalengland.org.uk)

low carbon generation close to where most energy is needed and consumed, i.e. the urban environment.

A strategic approach to planning renewables will be best led by emerging city regions, combined and county authorities. This should be complemented by a 'bottom-up' approach where communities are incentivised to come forward with local energy schemes, including additional resources for 'neighbourhood energy plans' to front load engagement.

Please see also our recommendations on development management in response to question 26 above.

CPRE
October 2022