

Energy Saving Trust's response to the Department for Infrastructure consultation on a review of Strategic Planning Policy on Renewable and Low Carbon Energy

Context: The current policy approach has played an important role in helping to facilitate the achievement of the renewable deployment to date (i.e. 40% of electricity generated from renewable sources by 2020). DfE's Energy Strategy consultation has proposed that a new renewable electricity target of 70% by 2030 should be set. This is within the wider context of consideration of net zero by 2050 and that all electricity in the UK should come from clean sources by 2035. In the context of the climate emergency there is support for increasing renewable and low carbon development to decarbonise our electricity supply. However, it is also recognised that this has to be balanced against any potential unacceptable adverse impacts on the local environment and communities.

Question 1: How should future strategic planning policy continue to help NI achieve any new targets for increasing energy from renewable and low carbon sources arising from the emerging Energy Strategy and in doing so assist in addressing the climate emergency?

One of the most widespread recent consultations on renewable energy implementation in both Ireland and Northern Ireland specifically has been the SONI/Eirgrid "Shaping our Electricity Future" available at soni.ltd.uk. A key recommendation emanating from this consultation was that communities must take part directly in the energy transition and that if they are enabled to build a sense of

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local ownership of the transition, then the importance of new grid infrastructure will be better recognised.

During recent energy auctions run by EirGrid as part of the Renewable Electricity Support scheme seven community- owned projects were successful and SONI in Northern Ireland are supportive of a similar approach. Energy Saving Trust believes that significant future renewable developments should be required to engage more deeply with the communities proximate to the development and share in the financial benefits whether through a degree of shared ownership or a community benefit fund. We do not take a view on what the exact share should be, as this will likely differ dependent on circumstance.

There are lessons to be learnt from other nations that could be used to develop a system of shared ownership or community benefit suitable for Northern Ireland. The Welsh Government have recently published their 'Local Ownership of Energy Generation' (LOEG) policy statement (see: <https://gov.wales/sites/default/files/publications/2020-02/policy-statement-local-ownership-of-energy-generation-in-wales.pdf>). Welsh Government has an expectation that all future energy projects should include an element of community ownership and has a target for IGW of renewable electricity and heat to be in local ownership by 2030. Scottish Government's ambition was to ensure that, by 2020, at least half of all newly consented renewable energy projects would have an element of Community shared ownership (CSO). This ambition for CSO has recently been reaffirmed and reinforced in the current (28/10/21 – 21/01/22) Onshore wind – policy statement refresh 2021: consultative draft – gov.scot (www.gov.scot) onshore-wind-policy-statement-refresh-2021-consultative-draft-28-october-2021 (1).pdf as follows: "We also continue to encourage the renewables industry to consider, explore and offer shared ownership opportunities as standard on all new renewable energy projects including repowering and extensions to existing projects." CSO is currently a voluntary offering from renewable energy developers to communities in Scotland.

These policy ambitions send out clear signals to developers and communities alike that the local impacts and benefits of energy developments will be assessed by Government and local authorities when considering planning applications and funding support. It is important to stress that adopting similar approaches in Northern Ireland and requiring an element of shared ownership or financial benefit to be distributed to the community will benefit not only community groups and individuals but also developers themselves. If the right policy framework and government support is

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enacted there should be minimal risk of these measures hampering project development. In addition, by enabling local people and the public at large to have a greater stake in proximate projects and the energy transition more widely, there is likely to be a greater degree of public acceptance of new technologies and approaches, making developing projects easier.

The scale of change required to meet climate targets and safeguard our future necessitates strong public buy-in. This will not be achieved as easily without their consent and involvement. By considering and adopting measures which involve communities to a greater degree, the process of transition could be made considerably easier.

Question 2: What are your thoughts on introducing new provisions within strategic planning policy to provide for a more strategic spatial approach for the siting of wind and solar farm (or others types of renewables) development through identifying suitable and/or unsuitable areas in principle?

Energy Saving Trust would contend that both strategic and local development planning authorities, working together where required, should identify where there is strategic capacity for wind farms, and areas with the greatest potential for wind development, considering constraints and opportunities which exist across areas. Strategic development planning authorities should take the lead in dealing with cross-boundary constraints and opportunities and coordinate activity with constituent planning authorities.

Proposals for energy infrastructure developments should always take account of spatial frameworks for wind farms and heat maps where these are relevant. Paragraph 169 of Scottish planning policy outlines a range of considerations which should be reviewed. <https://www.gov.scot/publications/scottish-planning-policy/pages/6/> Planning authorities should be encouraged to set out ambitious Local Plans. These should designate all suitable areas as 'suitable for wind or solar generation' in the Local Plan to facilitate renewable development.

The purpose of planning is to manage the development and use of land in the long-term public interest. Northern Ireland planning policy must embrace and deliver radical

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change so we can tackle and adapt to climate change, restore biodiversity loss, improve health and wellbeing, build a wellbeing economy and create great places. Each part of Northern Ireland can be planned for and developed to create sustainable places, where we reduce emissions and restore and better connect biodiversity; liveable places, where we can live better, healthier lives; productive places, where we have a greener, fairer and more inclusive wellbeing economy; and distinctive places, where we recognise and work with our assets. Energy Saving Trust would support the development of a Northern Ireland strategic spatial strategy within which wind and solar farm planning takes its place.

The Executive, together with the Utility Regulator, should also support and fund an approach to Local Area Energy Planning that sets out a core role for community energy groups. Lessons could be drawn from the COBEN programme (<https://civic-energy.eu/>) which, through a Scottish pilot, sought to develop an approach to Community-led Local Energy Plans which viewed communities' energy generation, energy efficiency, heat, transport, storage and future usage as a whole system. The Scottish pilot, led by Local Energy Scotland, developed a common local energy plan methodology and supporting toolkit (see: <https://www.localenergy.scot/resources/community-led-local-energy-plan-toolkit/>).

Question 3: What are your thoughts on introducing new provisions within strategic planning policy to require new wind farms to be capable of being sited in perpetuity.

Energy Saving Trust would support best use of land, wind resource, existing infrastructure, including grid connections in respect of a site once designated as being suitable for wind in perpetuity. This support is conditional upon local planning requirement reviews during repowering or upgrading as detailed further in our response to question 8

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Question 4a: How best should strategic planning policy provide for the consideration of such matters when plan-making and decision-taking?

Energy Saving Trust would recommend adherence to Good Practice Principles when considering issues around amenity. Current supplementary planning guidance to accompany Planning Policy statement 18 "Renewable Energy", takes into consideration many of the amenity issues specific to Northern Ireland. https://www.infrastructure-ni.gov.uk/sites/default/files/publications/infrastructure/Wind%20Energy%20Development%20in%20Northern%20Ireland%20Landscapes_0.pdf. Scottish Planning Policy paragraph 169 outlines a range of considerations to be considered during consideration of proposals for energy infrastructure among which are the "impacts on communities and individual dwellings, including visual impact, residential amenity, noise and shadow flicker impacts". This policy suggests an area not exceeding 2km around cities, towns and villages identified on the local development plan with an identified settlement envelope or edge.

In many cases visual amenity can be an issue however noise and specifically amplitude modulation (AM) in wind turbine noise can become a consideration. Given public concern over the issue, Institute of Acoustics have developed a robust procedure for measuring and assessing AM, to provide a consistent means of evaluating complaints and to form the basis of appropriate planning conditions that might be applied to regulate AM from new wind turbine developments. Most planning conditions, currently routinely applied to wind turbine installations, have had the effect of limiting overall noise levels and provide a means of controlling tonal noise characteristics, but have not directly addressed AM. This report recommends a metric to define the extent to which a sample of wind turbine noise exhibits AM.

https://www.ioa.org.uk/sites/default/files/AMWG%20Final%20Report-09-08-2016_1.pdf

Community shared ownership as outlined in our response to question 1 above also has a key part to play in acceptance or otherwise of a major development of this kind.

Question 4b: Do you consider strategic planning policy should require a mandatory separation distance for wind energy. If so, what distance and why?

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Currently paragraph 6.227 of the Strategic Planning Policy for Northern Ireland (SPPS) states " For wind farm development a separation distance of 10 times rotor diameter to occupied property, with a minimum distance not less than 500m, will generally apply" <https://www.infrastructure-ni.gov.uk/sites/default/files/publications/infrastructure/SPPS.pdf> In the absence of evidence within the consultation that the 500m limitation is causing difficulties, adherence to the status quo would appear to comply with current good practice principles.

In general, we believe that the 500m setback distance is acceptable, however current guidance of 10 times the rotor diameter will become increasingly restrictive as larger, more efficient turbines become available while smaller turbines are phased out of production. This limitation encourages the use of smaller, less efficient turbines which increases costs for consumers, which in turn will inhibit ability to achieve strategic renewable targets.

Question 5. What are your thoughts on the best approach to decommissioning and restoration of future wind turbine and solar farm development?

Scottish Natural heritage have produced recommendations on Decommissioning and Restoration Plans for wind turbines which provide a useful route map for this aspect of development planning. Despite this they acknowledge that there is relatively little experience in the UK of decommissioning wind farms. " We therefore encourage everyone involved in decommissioning to capture and share any lessons learnt as more wind farms are decommissioned over the coming years" <https://scotlandagainstspin.org/wp-content/uploads/2016/03/SNH-guidance-2016-on-decommissioning-of-windfarms-etc.pdf>.

Energy Saving Trust would conclude that Decommissioning and Restoration plans (DRP) in line with good practice must be included within planning applications and reviewed throughout the life of the project. Current approaches in Strategic Planning will inevitably be necessary to ensure site restoration within appropriate timescales is complied with. Planning conditions or legal agreements where appropriate will continue to be necessary in this regard.

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The SPSS should acknowledge that any decommissioning and restoration plan submitted at initial consenting stage would be subject to review and update in line with applicable regulations and best practice at the time of undertaking such works. Decommissioning is best linked to relevant environmental legislation pertaining at the projects end of life.

It has been suggested that, as wind farms get ever larger, smaller sites might become redundant and available for community purposes. Circular economy opportunities around refurbishing the current fleet of turbines for reuse could create an opportunity for local communities and businesses. These could be targeted in areas where turbine height restrictions are in place, where single turbines are appropriate or where industrial sites are connected to load. There are examples of communities using refurbished turbines already, for example Coigach (<https://localenergy.scot/casestudy/Coigach-wind-turbine/>). The practical issues for communities and business are likely to be around ensuring affordable operation and maintenance contracts, long-term warranties, confidence of funders and affordable insurance policies. Communities will require expert support and appropriate financial mechanisms to realise any such opportunities.

Question 6: Do you consider strategic planning policy should prioritise non-agricultural land for renewable energy development, such as solar energy. If so, how and why?

Key Issue: Co-locating renewable, low carbon and supporting Infrastructure

The term “non-agricultural land” would require to be accurately defined before that question could be answered fully. Clearly this is not a straightforward binary choice as it is not the case that only agricultural land could or should be used for renewable energy or only non-agricultural land could or should be used for renewable energy. For example, crops like oil seed rape can be used to provide not just biodiesel but also cooking oil and lubricants and these can have a much higher value than if that oil was used for biodiesel. Also, the ‘cake’ produced by squeezing the oil from oil seed rape seeds can then be used as a feedstock for cattle. Short Rotation Coppice willow is another example of a crop that could be used for renewable energy, and it is likely it will

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be grown on land that is either currently used for agriculture or is suitable for agriculture. There is also the role of any biomethane produced from Anaerobic Digestion (AD) from animal and plant waste as it is likely to be developed on existing agricultural land. It is therefore not always a clear or straightforward choice.

Energy Saving Trust would not necessarily seek the prioritisation of non-agricultural land for two reasons. Firstly, solar farming land normally continues in agricultural use, particularly with sheep farming, therefore it is not lost to agriculture. Secondly, non-agricultural land is in most circumstances is multiples of the price of agricultural land, resulting in fewer feasible solar farms or more expensive electricity. There is minimal loss of agricultural land on a solar farm given that the lands under the panels can continue to be used for small animal grazing among other agricultural practices. Solar farms bring added stable and diversified income to the rural community in addition to that from agriculture, therefore helping sustain the farming industry. A ban on agricultural deployment without any supporting evidence could be seen as an unwarranted imposition on farming communities.

It is important to note that when developing renewable energy sources, on land or in the seas, they should be subject to detailed ecological impact assessments to ensure that the right technology is deployed in the right place, in harmony with nature, to avoid any negative impacts.

Any such review should also include a life cycle analysis of each renewable energy source, to illustrate the overall impact of that energy source. This is particularly the case in relation to biofuels and biomass. For example, advice as to the sustainability criteria that are to be applied to biomass is available from several NGOs. WWF (https://wwfeu.awsassets.panda.org/downloads/forest_based_biomass_position_paper_finale.pdf) for example has argued for legally binding sustainability criteria for biomass for electricity, heating and cooling in order to ensure that:

- There is full accounting of carbon emissions from biomass to allow prioritisation of biomass based on their real GHG mitigation potential, as well as the efficient use of biomass.

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- There is zero use of valuable land to protect biodiversity and the ecosystem services of forests or restricted use in line with the management criteria for these areas.
- There is implementation of sustainability principles for forest management.
- Internationally proclaimed human rights are respected, including customary and statutory tenure and use rights, and the right to give free and prior informed consent.
- These principles are implemented in a credible way.

If biofuels are to play a part in decarbonising energy in NI, the supply of biofuel should be regulated to ensure it meets sustainability criteria and does not result in damage to important high value nature habitats or species and aligns with the fourth of the five key principles of the NI Energy Strategy <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/Energy-Strategy-for-Northern-Ireland-path-to-net-zero.pdf> to “replace fossil fuels with renewable energy”.

The Department for Infrastructure should consider adopting the approach proposed by Natural England relating to offshore wind developments, namely that each project builds in plans to actively enhance nature and mitigate any negative impacts on the marine environment

(Natural England Technical Information Note TIN181)

Question 7: Should strategic planning policy provide for the appropriate co-location of renewable, low carbon energy and supporting infrastructure? If so, how best might this be achieved and why?

Energy Saving Trust would support co-location of renewable, low-carbon energy and supporting infrastructure where possible. Development planning should identify areas capable of accommodating renewable electricity projects and have special regard to the addition of elements of a project which demonstrate a definite addition to project outcomes. Planning should identify areas which are weakly or unconnected to the NIE network and facilitate where appropriate, decentralised, and mobile energy storage installations, as these support the development of renewable energy and maintain

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network stability in areas where reinforcement is required to manage congestion. SONI/Eirgrid in their report "Shaping our Electricity Future" available at ([soni.lyd.ukhttps://www.eirgridgroup.com/sitefiles/library/EirGrid/Shaping_Our_Electricity_Future_Plain_English_Summary.pdf](https://www.eirgridgroup.com/sitefiles/library/EirGrid/Shaping_Our_Electricity_Future_Plain_English_Summary.pdf)) have reviewed many of these issues and have highlighted key areas for network infrastructure improvement.

Co-locating wind, solar, storage and/or electrolysers will reduce intermittency, reduce levels of 'Dispatch Down' (which occurs when EirGrid/Soni as the transmission system operator, instructs a renewable electricity generator to produce less electricity than it can or even to shut down entirely) and ultimately benefit consumers as greater efficiency will reduce costs. In addition, it can reduce the need to reinforce the grid and reduce transmission losses.

Question 8: Should strategic planning policy provide for and/or encourage the re-powering of wind turbines as they come to the end of their consented lifespan and require/allow that all new wind farms should be sited in perpetuity?

Energy Saving Trust supports the requirement that grid build-out needs to be simultaneous with the connection of new renewable generation. This invariably must continue to be 'developer led' as described in the " SONI Shaping Our Electricity Future proposals". Renewables Northern Ireland pipeline survey results show that the bulk of new renewable generation, up to 2030, will be sited in the north and the west of the province. Continued growth of onshore wind will be influenced to some extent by the repowering of the existing fleet alongside development of new farms. In the next decade, SONI have shown that Northern Ireland expect to grow onshore wind capacity to 2.4GW growth of approximately 1,100MW over the period, https://www.soni.ltd.uk/media/documents/Shaping_Our_Electricity_Future_Plain_English_Summary.pdf .

It remains vital throughout this development that developers act as 'good neighbours', working in tandem with local communities, communicating over the course of a wind farm's life and building good relationships. This should allow concerns to be addressed as they emerge, empower communities to engage positively with the development and

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secure community enhancements. Given the lifespan of renewable development, most wind farm sites, and their surrounding communities, may have changed markedly since the wind farm was originally considered and approved through the planning and consenting system.

Wind turbines are currently designed to be efficient and reliable for 25 years with possible extensions beyond that. End of life for turbines provides decision makers, developers, operators, and local communities with an opportunity to reconsider the development’s potential impact, including issues such as shadow flicker, landscape and visual impact, noise, community benefit, empowerment and engagement, while recognising that the development has been in place for a significant period. Clear planning guidance should be developed that is targeted and proportional and sets out agreed criteria for assessment of prospective applications for repowering and life extension, specifically recognising the existing use of the site as a windfarm represents the baseline.

We strongly support repowering in principle, as it allows for the re-use of certain elements of the existing infrastructure and means that existing sites and capacity can continue to make a vital contribution to the energy mix and net zero progress. Repowering offers an important opportunity to increase capacity at appropriate sites by installing more efficient and technologically advanced turbines with taller tip - heights. Repowering, and extending the operational life of wind farms, can take different forms, and the coming years are likely to bring advances in engineering, technology and environmental practices that will increase the opportunities to repower at sites.

Question 9a: What do you consider to be the emerging technologies and how best should strategic planning policy provide for their consideration by relevant planning authorities when plan-making and decision-taking?

Current planning and environmental considerations set out in PPS18 and SPPS provide a sound policy context against which new technologies can be judged, such as public safety, human health, visual impact, residential amenity, environmental, built and cultural heritage, noise, air quality, water quality, public access etc and all will remain key considerations.

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Recent publication of the Path to net Zero outlines "creating a flexible, resilient and integrated energy system" as one of the strategic aims. Key to this will be a robust infrastructure, storage in terms of hydrogen or batteries, enabling flexible access to low carbon energy when renewable production is low and data and digitisation which ensures access to real time data for system operators. <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/Energy-Strategy-for-Northern-Ireland-path-to-net-zero.pdf>. New technologies and grid issues requiring longer term consideration will include storage, wind, solar, HVDC and specific technologies that help the functioning of grid operation such as synchronous condensers. Other technologies may emerge, such as various forms of synthetic inertia and hybrid connections with a mix capability from storage, demand, wind, and other generation.

Question 9b: How best should strategic planning policy provide for the consideration of battery energy storage systems by relevant planning authorities when plan-making and decision-taking?

The development of BESS in our view is vital to facilitate more renewable energy development on the grid, but the projects are not in and of themselves regionally significant developments. Our comments would be like those above in Q9a

Question 9c: What do you consider to be any other issues relevant to renewable and low carbon energy development and how best should strategic planning policy provide for their consideration by relevant planning authorities when plan-making and decision-taking?

Energy Saving Trust would outline the vitality of strategic policy being accompanied by a duty on local government to contribute to the achievement of net zero and energy strategy targets.

A strategic review of renewable energy as referred to in response to Q6 is also essential.

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The sequestration of carbon using nature-based solutions as an important part of the overall effort to reduce GHG emissions. There is also a role for agricultural land in particular to be used for nature-based solutions (NbS) to help remove carbon from the atmosphere including through habitat restoration and creation, for example, appropriate tree planting, wetland restoration, especially peatlands, the protection and creation of blue carbon habitats (the carbon stored in coastal and marine ecosystems <https://www.thebluecarboninitiative.org/>) and careful soil management. Unfortunately, many of our ecosystems are in poor condition. These NbS have already been proven and are necessary because in NI the land use change sector acts as a net emitter of GHGs rather than a sink. (DAERA Northern Ireland Greenhouse Gas Emissions 2018 https://www.daera-ni.gov.uk/sites/default/files/publications/daera/NI%20Greenhouse%20Gas%20Statistics%201990-2018%20-%20Report%20%28web%20version%29_0.pdf (page 8)).

Using nature-based solutions would also reflect the recommendations of the CCC in its Sixth Carbon Budget report (<https://www.theccc.org.uk/publication/sixth-carbon-budget/>) which outlined some of the main policies for reducing emissions from land use and agriculture including afforestation, restoring and protecting peatlands and growing energy crops. Nature based solutions can help biodiversity while creating jobs and so should be the priority for carbon sequestration. In their 2020 report, the RSPB, WWF and the Nature Based Solutions Initiative (https://www.naturebasedsolutionsinitiative.org/wpcontent/uploads/2020/12/NbSinUKPolicy_Dec2020.pdf) outlined how nature based solutions can deliver multiple benefits for climate change adaptation, mitigation, biodiversity, health and the economy supporting affair and resilient economic recovery from the Covid-19 crisis with significant potential for creating green jobs. The sequestration of carbon using nature-based solutions is an important part of the overall effort to reduce GHG emissions.

Other issues requiring consideration include the need to reduce energy consumption, as well as energy efficiency, the role for decentralised energy and greater battery storage together with solar developments at individual homes and businesses. Hydrogen is increasingly promoted as an attractive option but if hydrogen is to be used, the clear choice should be renewable sources of hydrogen produced from splitting water (referred to as 'green' or 'yellow' hydrogen)

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<https://www.nationalgrid.com/stories/energy-explained/hydrogen-colour-spectrum>
using renewable electricity as it will have a lower emissions footprint (close to zero) and offers a possible use for renewable electricity that might otherwise have to be curtailed.

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