

## Welsh Affairs Committee inquiry on renewable energy in Wales: Energy Saving Trust evidence

### Energy Saving Trust

Energy Saving Trust is an independent organisation dedicated to promoting renewable energy, energy efficiency and low carbon transport to address the climate emergency. Our work focuses on reaching net zero targets by encouraging reductions in energy consumption, the installation of new infrastructure and an acceleration to more sustainable, low carbon lifestyles. A trusted, independent voice, we have over 25 years' experience in these areas. We provide leadership and expertise to deliver the benefits of achieving carbon reduction targets: warmer homes, cleaner air, healthier populations, a resilient economy, and a stable climate. We empower householders to make better choices, deliver transformative programmes for governments and support businesses and community groups with strategy, research and assurance – enabling everyone to play their part in building a sustainable future.

### Key points made in our response are summarised below.

- **Collaboration:** supporting further rollout of renewables in Wales will require close collaboration between the UK Government and the Welsh Government in several devolved and reserved policy areas.
- **Advice:** underpinning these efforts must be a focus on effective, impartial, and expert advice provision across Wales with the ultimate goal of creating a 'net zero home' advice service.
- **Tackling grid constraints:** the UK Government and the Welsh Government should work with Ofgem and energy networks to identify and tackle grid constraints to enable faster renewable deployment.

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- **Skills and training:** building up the required skill base to meet the necessary future demand for renewables must be a priority.
- **Local generation:** support for local and shared renewable generation projects must be seen as a priority area in the transition to a zero carbon Wales.
- **Innovation:** pilot projects and ‘sandbox’ schemes should be encouraged and facilitated by both Governments as a means of testing new low carbon approaches.
- **‘Building Back Better’ and COP26:** Wales is well-positioned to benefit from a green recovery from the economic impacts of Covid while demonstrating to the rest of the world the ambitious climate action already underway in the UK ahead of COP26.

### **Welsh Government Energy Service**

Energy Saving Trust leads a consortium, along with the Carbon Trust, which delivers the Welsh Government Energy Service (WGES), funded by the Welsh Government and supported by Local Partnerships. WGES provides free technical, commercial and procurement support to help develop large scale energy efficiency or renewable projects, from concept stage through to completion. This involves working closely with public bodies, community groups and, where necessary, other stakeholders with an influence on project viability, such as district network operators.

All service users have support from a dedicated Energy Service development manager to coordinate and deliver support tailored to their needs, and a strategic lead to secure senior level commitment within their organisation and align project work with wider de-carbonisation and economic priorities at a regional and national level. It is a four-year programme funded by the Welsh Government, running from 2018 to 2022. Workstreams include:

- Energy efficiency projects in the public sector
- Renewable energy projects in the public and community sectors

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- Low carbon vehicles in the public sector
- Policy guidance on locally-owned renewable energy
- Regional energy planning for North Wales, Mid Wales, the Cardiff Capital Region and Swansea Bay City Region

We welcome this inquiry from the Welsh Affairs Committee and particularly its focus on how Westminster and Cardiff can collaborate in this crucial area in the future. We would welcome more details about how collaboration will work in the future from the UK Department for Business, Energy and Industrial Strategy and the Welsh Government's Department of Environment, Energy and Rural Affairs, drawing on the conclusions of this inquiry and focusing on how the renewables sector in Wales can be supported further.

We have responded to the inquiry questions of most relevance to our organisation, and which draw most on our expertise. We believe that collaboration will be essential for achieving deeper decarbonisation. We have made it clear throughout where the UK and Welsh Government can work in collaboration to improve the deployment of renewables in Wales.

*How can the UK Government best support the deployment of renewable generators in Wales?*

### **Green recovery and levelling up**

We believe that investments in renewables (and other 'green' sectors) in Wales must be a priority as these can play a significant part in the levelling up and 'building back better' agendas. The available evidence strongly suggests that investing in 'green' projects and programmes will return sizeable dividends, far above those which could

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be achieved through traditional stimulus programmes<sup>1,2</sup>. We think the UK Government must work with the Welsh Government to deliver this agenda and account for the Welsh context and its challenges when designing these programmes.

### **Advice provision for ‘net zero homes’**

The provision of independent, expert advice, consistently delivered across Wales (and the UK) must be the foundation of further efforts to increase the rollout of renewable generation and renewable heating, particularly for households, ‘self-funders’, and renters/landlords. Though the support provided to communities wishing to undertake renewable projects through the Welsh Government Energy Service is of a very high standard there is still more that can be done to support households.

We know from our work delivering advice programmes in Scotland that centrally managed, impartial and expert advice on a broad range of energy issues (eg renewables, heat pump installations and EVs) can have a positive impact on the rollout of these technologies. Around a third of those receiving advice through the specialist advice service, which is managed by the Energy Saving Trust and delivered regionally across Scotland through the Home Energy Scotland<sup>3</sup> advice network, have gone on to install renewable energy. Three quarters of advice customers had taken, or plan to take action, while more than 80% of advice recipients who had taken action attributed at least one action to the specialist support provided.

Given how effective advice can be in helping people to decarbonise their homes, we think the UK Government should see the provision of advice on renewable installations as a priority. A Wales-wide ‘net zero home’ advice service would be able to address questions related to renewables (as well as low carbon heat and low carbon transport) whilst continuing to provide excellent advice on energy efficiency retrofit and fuel

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<sup>1</sup> <http://transitioneconomics.net/wales-infrastructure-recovery-covid-tuc>

<sup>2</sup> <https://www.smithschool.ox.ac.uk/publications/wpapers/workingpaper20-02.pdf>

<sup>3</sup> <https://www.homeenergyscotland.org/>

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poverty alleviation. A greater understanding and recognition of the benefits of renewables and advice on their suitability will lead to an increase in their installation with benefits to jobs and employment in green industries across Wales.

### **Skills and training**

Building up the supply chain and skills base to meet growing demand will be a necessity. We believe that the UK Government should consider prioritising the skills and training needed to install renewable generation and heating systems at-scale by funding the creation of dedicated training courses in Wales (and ideally across the UK). This increase in the base of skilled labour will be of benefit to the rest of the UK as Wales exports its expertise, helping to meet UK-wide climate targets. We welcome the ongoing work from the Construction Industry Training Board and others in creating 'retrofit academies' in Wales<sup>4</sup> with Welsh Government support.

### **Tackling grid constraints**

Wales faces a significant challenge in further developing its share of renewable generation due to the constrained nature of the electricity grid. Constraints on the network and delays in connection hold back further progress in renewable deployment, particularly in rural areas<sup>5</sup> and for smaller projects which can struggle to address this barrier<sup>6</sup>. The UK Government should as a priority, together with the Welsh Government, work with the relevant distribution and transmission companies (Western Power Distribution, Scottish Power Energy Networks, National Grid Transmission, National Grid System Operator) and Ofgem to identify and tackle constraints in Wales. We think that particularly constrained areas and areas of strategic importance should be prioritised.

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<sup>4</sup> <https://gov.wales/written-statement-optimised-retrofit-programme-2020-21>

<sup>5</sup> <https://gov.wales/sites/default/files/publications/2019-10/energy-generation-in-wales-2018.pdf>, p.29

<sup>6</sup> <https://www.ofgem.gov.uk/ofgem-publications/91618/gridconnections.pdf>

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Taking a flexibility first approach should reduce the need to reinforce the grid, which will lower any costs for consumers. Addressing these constraints will benefit the whole UK. More than 50% of the electricity generated in Wales is exported to the rest of the UK<sup>7</sup>, with the likelihood being that an increasing quantity of electricity will need to be supplied from Wales as we transition to net zero.

### **Support local and shared renewable generation**

The Welsh Government has long made support for local renewables a priority policy area, most recently with the Local Ownership of Energy Generation' policy statement<sup>8</sup>, an approach we agree with. This sets out an expectation that all future energy projects should include an element of community ownership, with a target for 1GW of renewable electricity and heat to be in local ownership by 2030. UK Government should endeavour to support this progressive approach.

Through our work with the Welsh Government Energy Service, which supports community-led renewable generation projects in Wales, we know that the business cases for these projects can be challenging. One approach that has proven effective (and which we believe could be scaled up to increase the deployment of renewables and produce greater public benefit) is the use of Power Purchase Agreements (PPA) for small scale renewables. This approach has been pioneered very successfully by *Egni Coop* in south Wales which has amassed a strong portfolio of small-scale community solar projects<sup>9</sup>. Energy Saving Trust and the WGES played a significant role in enabling this programme of work.

Public buildings and assets such as hospitals, council offices, and schools should be encouraged to host renewable assets (particularly in Wales where the Welsh

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<sup>7</sup> <https://gov.wales/sites/default/files/publications/2020-11/energy-generation-in-wales-2019.pdf>

<sup>8</sup> <https://gov.wales/sites/default/files/publications/2020-02/policy-statement-local-ownership-of-energy-generation-in-wales.pdf>

<sup>9</sup> <https://egni.coop/our-sites/>

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Government has set out an ambition for the entire public sector to decarbonise by 2030<sup>10</sup>). These could be wholly or partly owned by local people, with a contract in place to supply the host site with the generated electricity at a fixed rate through a PPA. This has the potential to benefit each of the stakeholders involved, with the public estate contributing to decarbonisation and paying a fixed rate for their electricity which is often below the market rate and the community in question receiving a fixed amount for the production of the electricity, which can then be reinvested to create additional value. Another project to which Energy Saving Trust is contributing that is already employing elements of this approach in Wales is the *Riding Sunbeams Green Valley Lines* project<sup>11</sup>. Energy Saving Trust was also a partner in the recent EU HEROES Horizon2020 project which brought together seven European nations with the overall aim of enabling the continued development of community-owned solar systems without the direct use of subsidies. This PPA approach was one of the key recommendations of the project<sup>12</sup>. This approach offers an excellent opportunity for the UK and Welsh Governments to collaborate, as the host sites will likely be a mix of both UK and Welsh Government-controlled assets.

While there can be challenges on a building-by-building basis, the UK and Welsh Governments could set a strategic priority to develop a standardised approach to setting up PPAs for public buildings using locally-owned renewable assets, creating template agreements which are still customisable to reflect the complexities of individual buildings and sites. The specific architecture of such a policy would determine the extent to which oversight and administration were devolved or not. It seems likely that the Welsh Government could undertake this work with existing devolved powers but we believe that close collaboration between the UK and Welsh Governments should be a priority to ensure that as many public assets as possible can benefit and the lessons learned can be more easily applied to other UK regions.

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<sup>10</sup> [gov.wales/sites/default/files/publications/2019-04/decarbonisation-of-the-public-sector-call-for-evidence-2017.pdf](http://gov.wales/sites/default/files/publications/2019-04/decarbonisation-of-the-public-sector-call-for-evidence-2017.pdf)

<sup>11</sup> <https://www.ridingsunbeams.org/ourwork/greenvalleylines>

<sup>12</sup> <https://www.euheroes.eu/project-findings-2/>

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Drawing on the expertise of the Welsh Government Energy Service in this area must also be a priority given their extensive experience assisting *Egni Coop* and the *Green Valley Lines* project.

At this small scale, relatively minimal Government support can tip the balance towards project viability. In the example of the PPA approach, a Government or Development Bank of Wales ‘top up’ of 1p/kWh generated could help guarantee project viability and incentivise public and private actors to participate. This kind of strategic ‘top up’, which aims to leverage greater private investment, should be a priority of the UK Shared Prosperity Fund, on whose distribution we believe the UK and Welsh Governments should work collaboratively.

### **‘Sandbox’ pilot schemes**

The transition to net zero will require the deployment of not just new renewables but innovative financing models and as-yet untested combinations of technologies and approaches. The UK Government should work with the Welsh Government to consider the suitability of communities in Wales to become ‘sandbox’ test sites for these innovative approaches<sup>13</sup>, allowing them to be piloted at sufficient scale. Financing large-scale or whole-house retrofit has proven a persistent challenge. Small-scale pilots in Wales<sup>14</sup>, funded by the UK Government, could test the viability of alternative financing models such as long-term low-interest Government or Development Bank of Wales loans tied to individual properties, PACE financing<sup>15</sup>, and green mortgages. Our electricity systems will become increasingly smart, and again, Welsh communities could test the efficacy of vehicle-to-grid charging, dynamic time-of-use tariffs, models of local supply and trading within communities, or combinations of different renewable technologies.

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<sup>13</sup> <https://project-leo.co.uk/>

<sup>14</sup> <https://www.westernpower.co.uk/projects/freedom>

<sup>15</sup> <https://www.europace2020.eu/>

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*What mechanisms can ensure that subsidies for renewable generators are good value for money?*

We argue that transitioning to net zero (with all of the deep societal changes this will necessitate) requires us to think about ‘value for money’ in a broader sense. This is particularly true if we want to prioritise a ‘just’ transition that uplifts every Welsh community, allowing them to benefit from the transition.

This is already being recognised by the Treasury in their interim net zero report and consultation and as well as the proposals for an updated supply chain component to the next Contracts for Difference auction round<sup>16,17</sup>.

Value for money should not be treated as a narrow “MEAT” model<sup>18</sup> but as a wider consideration of benefits including local ownership and procurement and wider positive impacts on local communities, economies and the environment.

One tangible way that this could be achieved (and more robustly measured) would be to incentivise additional carbon savings or social benefit from local energy projects. Projects which can evidence the meeting of predefined additional targets (eg to invest in an EV car club, recirculate money into greater renewable deployment, fund the retrofitting of local homes) could receive additional funding (eg top ups on a PPA or match funding for additional projects). These mechanisms could also be designed to promote local procurement and skills training.

*In preparation for COP26*

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<sup>16</sup> <https://www.gov.uk/government/consultations/contracts-for-difference-cfd-changes-to-supply-chain-plans-and-the-cfd-contract>

<sup>17</sup> <https://www.gov.uk/government/consultations/contracts-for-difference-cfd-for-low-carbon-electricity-generation-new-supply-chain-plan-questionnaire>

<sup>18</sup> Most Economically Advantageous Tender, a method of assessing project value for money; [https://www.designingbuildings.co.uk/wiki/Most\\_Economically\\_Advantageous\\_Tender\\_\(MEAT\)](https://www.designingbuildings.co.uk/wiki/Most_Economically_Advantageous_Tender_(MEAT))

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Wales can play a leadership role as part of COP26 preparations and delivery. Wales is already viewed as a leader in several environmental fields, including renewables, the circular economy, and the prioritisation of well-being and just transition<sup>19</sup> having been the first country to declare a climate emergency<sup>20</sup>. The UK Government can help to facilitate further Welsh contributions by consulting and resourcing Welsh third sector bodies to produce new research and bodies of work ahead of COP26 which showcase the positive developments that have happened here in Wales and by extension the UK as a whole. COP26 has helped to push climate action to the top of the agenda, both in Wales and the UK. It will be crucial for both governments to capitalise on this renewed focus and pursue a green Covid recovery that prioritises a just transition, green jobs, and the creation of a low carbon economy. Government seed investment and top up funding will help to leverage considerable private funding for renewable projects and delivering this must be a priority ahead of COP26 and beyond.

*What opportunities are there for renewable energy to aid Wales post-COVID-19 economic recovery?*

We firmly believe that Wales is well placed to capitalise on a number of green recovery opportunities over the next 18 months and beyond that will address both the economic fallout of Covid-19 and the climate crisis in a manner that helps facilitate a just transition and which aligns with the well-being goals of the Well-Being of Future Generations Act.

Whilst having a significant impact on our carbon emissions, investment in renewable technologies in Wales could also create thousands of jobs and position Wales as a first mover in several emerging fields such as battery technology, ocean energy, floating wind, demand side response and flexibility markets, and new community energy business models. However, Governments need to be mindful of making this a ‘just’

<sup>19</sup> “We hope that what Wales is doing today the world will do tomorrow. Action, more than words, is the hope for our current and future generations.” - Nikhil Seth, Head of Sustainable Development, United Nations (2018)

<sup>20</sup> <https://gov.wales/welsh-government-makes-climate-emergency-declaration>

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transition, ensuring that all of the people of Wales are brought along and benefit from the opportunities the transition offers.

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