

1. RWE Renewables UK Limited (RWE) is pleased to provide this note to inform the CCEIC's evidence session on renewable energy generation in Wales on 3 March, which RWE's UK Country Chair, Tom Glover, will be contributing to.
2. We would urge committee members to consider this paper in tandem with RWE's previous written response to the CCEIC's evidence session with Ministers on the Welsh Government's Net Zero Wales plan (attached again for reference).
3. RWE is the largest generator of electricity in Wales and the largest investor in renewable energy, currently operating four onshore¹ and three offshore wind farms², and a number of hydro plants. RWE also operates a Combined Cycle Gas Turbine (CCGT) power station at Pembroke, which is the most efficient in the UK. We have a pipeline of new projects in development across Wales in offshore wind (fixed and floating), onshore wind, battery storage and hydrogen.
4. We recognise the Welsh Government's (WG's) determination to meet its legally binding commitments, and the increased sense of urgency leading to a sharper focus in the last 12-18 months on the role that the generation of renewable and low carbon energy has to play. We welcome the setting up of a Climate Change Ministry by Welsh Government following the 2021 Senedd election.
5. RWE is always eager to respond positively to the development of Welsh energy policy and we have been grateful for the myriad of opportunities to do that recently during various evidence sessions, inquiries and consultations. With the increased focus on the key issues relating to the development of renewable and low carbon energy, we believe that progress can be made towards decarbonising our economy and meeting net zero.
6. The Senedd Committee's role is to scrutinise the Welsh Government, but in doing so, we would also urge committee members to take account of the useful work of the Welsh Affairs Committee, including their report into renewable energy in Wales³ and their current inquiry into grid capacity in Wales⁴.
7. The most recent initiative at a Welsh Government level is the Deputy Minister's Deep Dive into renewable energy, to which RWE contributed and the recommendations of which were published in December 2021. As requested, this paper, in part, provides our high-level thoughts on those recommendations⁵.
8. We would like the Committee to help ensure well-rounded membership and contributions to exercises such as the recent Deep Dive into Renewable Energy, to include both large and smaller-scale renewable energy developers. This will ensure that the challenges are better understood for all levels of generation and demand as well as the full range of benefits captured.

Strategy

(Linked to Deep Dive recommendations 1 & 2)

9. We would urge the Welsh Government to provide a more explicit statement about the commitments it believes Wales has made to be a net exporter of renewably generated electricity. Wales can be far more ambitious about its role in helping other parts of the UK and beyond tackle the climate crisis, and the language currently used is equivocal. Whilst it is sensible to map out local energy demand (to create a national energy plan), 'matching local

¹ Brechfa Forest West (57.4MW) (Carmarthenshire); Clocaenog Forest (96MW) (Denbighshire / Conwy); Mynydd y Gwair (32.8MW) (Swansea); Rhyd y Groes (7.2MW) (Anglesey)

² Gwynt y Môr (576MW); Rhyl Flats (90MW); North Hoyle (60MW) all off the coast of North Wales.

³ <https://committees.parliament.uk/work/833/renewable-energy-in-wales/publications/>

⁴ <https://committees.parliament.uk/committee/162/welsh-affairs-committee/news/160712/grid-capacity-in-wales-inquiry-launched/>

⁵ We have chosen the recommendations of most relevance and importance to us.

renewable energy generation with energy demand' ignores the critical role that Wales can play in electricity export and the benefits that can bring.

10. RWE welcomed the recent publication in 2021 of Regional Energy Strategies for North Wales, Mid Wales and the Cardiff Capital region which set out the scale and scope of the decarbonisation challenge. To reinforce the point above, we argue that these energy strategies should not be geographically limiting. For security of supply and affordability, import and export of electricity within and between regions within Wales (and across the UK and beyond) is critical, rather than balancing supply and demand purely at a local level. **A key strength of Wales is its ability and potential to both deliver its needs and export green electricity to others.**
11. We would therefore urge greater clarity and ambition regarding Wales's role as a net exporter of renewable electricity.

Grid

(Linked to Deep Dive recommendations 5 & 6)

12. The lack of availability of cost effective and timely grid connections throughout Wales, particularly in relation to onshore but also with increasing relevance to offshore, is a severe barrier not just to new renewable energy projects, but also to ambitions to decarbonise the entire Welsh economy, and to reach the Welsh Government's net zero targets.
13. Onshore, there is a lack of grid infrastructure in all parts of Wales, but the problem is most acute in Mid Wales, where the most abundant opportunities exist for the development of renewable electricity generation. In order for communities in mid Wales to decarbonise, and take advantage of heat pumps and electric vehicles, there is a need for grid infrastructure upgrades. Further onshore wind development will enable this much needed grid infrastructure upgrade, facilitating the decarbonisation of the mid Wales economy by bringing forward the necessary investment.
14. RWE welcomes the September 2021 announcement⁶ that the Welsh Government, Ofgem, and network operators had agreed to work collaboratively to develop a strategic approach to gas and electricity network planning. We have previously argued that industry be directly involved in meetings, and that the review was delivered speedily. At this stage – six months later - we are not aware that an industry representative has been invited to participate directly in meetings, nor are we clear what progress, if any, has been made. RWE alongside others in industry would welcome an update on this.
15. In recognition of the fact that powers over electricity transmission are reserved at the UK level, we urge the Welsh Government to explore all avenues to work even more closely with UK Government. As noted above, the Welsh Affairs Committee of MPs is shortly undertaking an inquiry into grid capacity in Wales which we expect the Welsh Government to provide evidence to. RWE will be contributing to this call for evidence with Tom Glover (UK Country Chair) providing evidence and Helen K Thomas (Senior Stakeholder and Supply Chain Manager for Wales) invited as a witness. We look forward to the outcome of the committee's deliberations.
16. We repeat a recommendation made previously on this matter, namely that to kick start grid infrastructure upgrades, particularly in relation to onshore in mid Wales - and give developers confidence to develop projects - RWE recommends that the Welsh Government explores ways to financially underpin the grid feasibility and consenting expenditure needed in parallel with attempts to secure anticipatory investment via Ofgem.
17. We welcome Welsh Government's recognition of the complexity of offshore electrical hubs (OTNR) and grid requirements, particularly for North Wales (Round 4) and in the Celtic Sea, and their commitment to press Ofgem to create a Wales Energy System Architect which will oversee a number of themes, including offshore network design and onshore reinforcements for offshore opportunities in the Celtic Sea. (We would also advocate, however, that there is more logic to pursuing a UK-wide System Architect, as this would allow new projects to be developed in Wales but not necessarily requiring grid development in Wales, for example, connecting projects in the Celtic Sea to the national grid in Devon). We have consistently argued that the Welsh Government should ensure its evolving policies link to the need for a more coordinated offshore grid approach, whilst ensuring that current projects progressing through development avoid delay – an important point to ensure momentum in the near-term, whilst the longer-term challenges are addressed. The need for a coordinated offshore approach to grid

⁶ <https://gov.wales/written-statement-evolving-energy-grids-net-zero-wales>

is particularly important in light of the Irish Sea being a key zone for the development of numerous fixed and floating wind projects in the Irish and Celtic Seas.

18. We would further recommend that the Welsh Government should explore ways to financially ‘pump-prime’ offshore electrical hubs so that floating and other offshore projects can connect too, to reduce the point-to-point problems associated with multiple export cabling brought to shore. There may be ways of releasing development and capital expenditure potentially through asset transfer to OFTO or grid. More broadly, Welsh Government should keep focused on the number of development opportunities in these technologies and work with developers and National Grid to arrive at the right innovative solutions that avoid similar connection issues (delays) to those that have occurred on the east coast of England, whilst ensuring that the timelines of existing projects that are progressing (e.g. Awel y Môr) are not negatively affected.

Consenting, licensing, and supporting advisory arrangements

(Linked to Deep Dive recommendation 7)

19. RWE is engaged with Natural Resources Wales (NRW) on a number of its projects both onshore and offshore.
20. We put the case forward to the Welsh Government that NRW is currently not appropriately resourced (either total resource or focus of that resource) to carry out its statutory and non-statutory functions in a timely way. This can cause long and costly delays to projects and is especially the case for the supporting advice that is needed from NRW for our onshore projects.
21. For offshore, we put forward the case that compared to projects in other parts of the UK, those in Welsh waters face increased consenting risk and a competitive disadvantage. Unlike in England, Welsh Marine Licenses are not deemed under a Development Consent Order (DCO) but are determined separately. Currently, **there is no clear timetable by which NRW must determine Marine Licenses for DCOs** and this issue is currently posing the greatest risk to the programme of delivery for RWE’s Awel y Mor project which has every potential to be one of the largest infrastructure investments in Wales for decades and to contribute towards Welsh Government targets ahead of 2030.
22. RWE is therefore pleased with the general thrust of recommendation 7 in the Deep Dive which has the potential to improve capacity and resource at NRW (7b) and provide confidence to developers on marine licensing timescales (7a). We note that the timescales set to complete this work/review are imminent; spring 2022 in the case of 7b and summer 2022 in the case of 7a.

Opportunities to scale up Community and Local Energy in Wales

(Linked to Deep Dive recommendations 14 – 17)

23. The aim of supporting and encouraging community renewable energy projects is appropriate. The scale of the challenge for community renewable energy projects is significant, and some of the challenges faced by the sector are similar to those faced by large-scale development, most notably the lack of grid capacity and the costs and timescales associated with grid upgrade.
24. However, it is only through the rapid development of large scale renewable and low carbon energy projects that the ambitious targets to meet net zero will be achieved.
25. We have previously put forward the case for an ‘onshore wind sector deal’, and we are pleased to have the opportunity to repeat that here as a means of fulfilling the ambition for the public sector to own more renewable energy assets in Wales.
26. A public/private partnership approach could be achieved on the Welsh Government’s forestry estate with relation to onshore renewable energy projects. There is potential for such partnerships to deliver benefits that align to Welsh Government’s policy drivers, such as on local/community ownership, community benefit funding, skills and supply chain, support for Welsh Government climate mitigation actions in its partner countries, tree planting in Wales, commitments on gender equality, regard to the Welsh language, apprenticeships, agreement to pool resources and work with broadband operators to take high speed networks to remote rural locations (where, typically, onshore wind is sited), and support the delivery of EV charging points in remote locations. This could operate as an ‘Onshore Sector Deal’ between the industry and the Welsh Government.
27. Currently the frequency of tenders on the Welsh Ministers’ forestry estate is too slow and is driven by NRW resource rather than the urgency of climate change. Opportunities for onshore wind in Mid Wales are, as noted above, significantly constrained by grid and these projects are therefore unlikely to be operational until the 2030s.

Outside of Mid Wales, the vast majority of land suitable for large scale onshore wind projects is on the Welsh Minister's forestry estate.

28. This model potentially avoids many of the risks and difficulties of using valuable taxpayers resources to set up a Welsh energy company. We are particularly concerned that the priority should be focused on addressing climate change, and that setting up such a company would take time, resource and attention away from this crucial task and also risk reducing the attractiveness of Wales to private companies and delaying the build out of renewables. We also believe that there are a number of other key difficulties with this proposal, such as:

1. Securing the necessary skills: Typically, developers employ in-house development project managers, construction project managers, technical asset managers, commercial asset managers, grid specialists, lawyers, financial controllers, accountants, acousticians, property managers, stakeholder engagement professionals etc.
2. Attracting talent from the private sector into the Welsh Government: Currently the renewable energy market is very buoyant and skills are in high demand.
3. Costs: Typically, ~£100k/MW is spent on development expenditure and a further ~£1m/MW on capital expenditure.
4. Appetite for risk vs. return and appropriate use of public finances: Due to extreme competition in the renewables space, investment returns are at all-time lows and in the single digit area for most new projects. Commercial developers apply an attrition rate to their portfolios and accept that not all sites identified as potentially suitable will ultimately be consented, built and become operational. Indeed, the majority of development sites never end up progressing to investment. The Welsh Government need to consider whether this is an investment risk/return profile that would be an acceptable one for already stretched public finances.
5. Justification: At present, there is no market failure - there is a functioning competitive market, with multiple developers competing against one another.

Opportunities to maximise economic and social value in Wales

(Linked to Deep Dive recommendations 18 & 19)

29. RWE supports these ambitions (and has proactively helped shape) Welsh Government's thinking in these areas. We are committed to maximising benefits for Wales, matched to specific technology type and scale. We believe local/shared benefits and ownership models work best for onshore wind and solar and are progressing local/community ownership offers on our Alwen Forest and Pen March onshore wind projects.
30. Offshore wind on the other hand can offer local and regional benefits on a different scale, by incentivising investment, stimulating local supply chain and providing both direct and indirect job opportunities. For offshore wind projects, we believe that maximum benefit for Wales can come from a focus on expanding manufacturing, supply chain and port and infrastructure capabilities. We are currently progressing a study with Welsh Government and other offshore wind developers in the Irish Sea region to assess current capability and future opportunity in the north and wider Wales regions.
31. In relation to capturing benefits for Wales, RWE is supportive of ensuring local benefits are maximised wherever possible. For instance, with regard to furthering the development of the local supply chain, RWE has been the champion for establishing a brand new supply chain cluster for the North Wales region where our existing and new offshore windfarms are based. This cluster organisation – The Offshore Energy Alliance – 'flies the flag' for the local region, raising awareness of opportunities amongst local businesses, facilitating events, discussions and analysis to further build capabilities in: manufacturing, port infrastructure, supply chain, skills, innovation and exports.
32. RWE encourages WG to continue working with us and other regional partners to provide more formal support to The Alliance via local funding and resource, enabling the cluster to deliver full benefits.
33. RWE thanks the Committee for the opportunity to provide this note on renewable energy in Wales, and our thoughts on some of the recommendations in the Deep Dive. We look forward to contributing to the session on 3 March and to supporting the committee's work throughout the sixth Senedd term in whatever way we can - via contributions to inquiries and evidence sessions, or visits to our energy sites, where these may be deemed useful.