Renewing the Focus
Re-energising Wales
Two Years On

Hywel Lloyd | Andy Regan

A plan for Wales’ renewable energy future:
Essential actions to re-energise Wales by 2035
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About Re-energising Wales

Re-energising Wales was a three-year project (April 2016 - April 2019) to deliver a plan to enable Wales to meet its projected energy demands entirely from renewable sources by 2035. It was led by Shea Buckland-Jones and Rhea Stevens, with the support of an advisory group of experts from academia, the third and public sectors, and the energy industry.

This report sets out our view of the progress made against our recommendations since April 2019.

This report has been kindly supported by the Friends Provident Foundation.

The IWA would also like to thank RWE Generation UK for their generous sponsorship of the stakeholder roundtable held as part of the research for this report.

The original Re-energising Wales project was funded by the Hodge Foundation, the Friends Provident Foundation and the Polden-Puckham Charitable Foundation.

About the authors

Hywel Lloyd is the founder of Facilitating the Future, an independent consultancy that promotes systemic and sustainable solutions to public policy challenges. He also works at the Active Building Centre, leading on government engagement in their mission to accelerate the UK’s drive towards net-zero carbon by transforming the way buildings are powered and heated. He is a previous Specialist Policy Advisor to UK Secretaries of State at DCLG and Defra, where he oversaw policy that included Zero Carbon Homes, while also supporting DECC in the creation of the first suite of Energy Planning Policy Statements. He is a non-executive board member of UK100, the local authority clean energy network, and a member of the IWA.

Andy Regan was Policy and External Affairs Manager at the IWA from September 2019 to October 2021. Andy previously specialised in energy policy in roles at Citizens Advice and Ofgem, including co-chairing the Fuel Poverty Coalition Cymru.

This report has been co-authored by Hywel Lloyd and Andy Regan.
When we look back at the 30 months since the March 2019 launch of A plan for Wales' renewable energy future: Essential actions to re-energise Wales by 2035, we can see momentous and meaningful changes to the landscapes of politics, work, life and play; and to the ways in which we could and should prepare for the future. Many of these meaningful changes will impact the fundamental challenge underpinning the original Re-energising Wales project: how can we grow a successful, clean, green and fair economy to provide sustainable, long-term economic and other benefits for the people of Wales?

Some routes to such an impact are clear and direct: if a Welsh community owns a wind turbine, there would be an economic benefit to them; just as there would for someone whose house was a ‘Home As Power Station’ (HAPS), or for a small business dedicated to upgrading homes to be properly insulated, and for a larger public or private organisation owning a solar farm. Some routes are less immediately obvious. Ofgem, for example, anticipates economic benefits coming to owners of electric vehicles as they play a new role as energy storage devices providing flexibility to the grid as well as pollution-free transport. Other routes may be more subtle still, yet over time have the potential to affect the Net Zero economic future of Wales. The 2021 Programme for Government contains at least two such commitments. The first is to ‘Seek a 30% target for working remotely’ for the Welsh workforce which, whilst it needs to be more clearly defined, would change the nature of commuting (and associated emissions), as well as offer a new work, life and play balance that the pandemic has shown to be possible for many. The second commitment is to ‘explore reform of the school day and the school year’. As both are essential features of the daily lives of many households, changes in either could meaningfully affect a wide range of economic and carbon-intense activity. For example, with fortnightly half-terms, some holiday traffic would be spread across two weeks instead of one, reducing associated congestion and pollution.

Clearly many of these observations are not about renewable energy, yet it is easier to reach a 100% renewable Wales if we ensure the demand for energy and energy services – warmth, hot water, electrical power, mobility – fit the future we want to have, and if these services are effectively and efficiently deployed. A system geared towards meeting Wales’ own needs and nothing more will look very different from a system aimed at maximising Wales’ contribution to global decarbonisation. We could achieve this through both exporting technology manufactured within our borders, or distributing energy generated here over the border and beyond. What kind of society will Wales be – one that looks in, or looks out? With a clearer idea of these demands we will collectively be more likely to be able to bring the future system into shape.

This follow-on report is based on desk research, observations and evidence from meetings and interviews with original members of the Re-energising Wales Steering Group, officials, and those who might well have been members of a Steering Group had we convened it in 2021. This work took place in the summer of 2021, with a September roundtable of stakeholders from across the Welsh and UK energy and economy sectors, kindly sponsored by RWE Generation UK. Hywel Lloyd, who worked on the original Re-energising Wales project, undertook these interviews and contributed to the writing and production of this report. We seek to assess progress against our 2019 recommendations, and identify areas where more focussed action would help further the IWA’s ambitions for Wales’ transition to an economically beneficial 100% renewable economy. In so doing, this report also points to potential new areas of action which our previous report had not highlighted. There is still time for Wales to take advantage of the opportunities of Net Zero, learn the lessons of the pandemic, make this part of the development of Wales’ four growth deals, and accomplish our plans and strategies. The new Welsh Government has signalled its political ambition through the creation of a dedicated Climate Ministry. Now we must deliver.

Auriol Miller  |  Director, IWA
With the economic impacts of the pandemic continuing to be felt, the impacts of Brexit still to work their way through the economy, and only two years since the launch of the Re-energising Wales report, with a Welsh election and UK general election in between, it might be unrealistic to expect a tangible GVA improvement in the intervening period. However, the urgency of Net Zero has ramped up the achievement of an 80% reduction in emissions (which was the extent of both the UK and Welsh Governments’ commitments at the time of the launch in March 2019) to essentially be brought forward from 2050 to 2035.

Politics has caught up with our ambitions, and we now feel it is fair to expect much more robust Net Zero plans at Wales and UK level, with the spending commitments to match. Yet we are fast approaching the point where some of these answers will be required if any government, UK or Welsh, is to make the necessary impact on emissions required by 2030: 58% for Wales and 69% for UK. This Welsh Government term to 2026 is key, and the clock is ticking. Indeed, as I write these words in late October 2021, the UK Government’s Net Zero plan is hot off the press, with commentators still poring over the details and drafting their responses.

We cannot ignore the fact that some of the powers needed to make the greatest impacts in Wales are reserved to the UK government. A key consideration for the 2019 report was which are the powers and levers among those the Welsh Government controls that can give the greatest impact, and in which areas it should spend more time on engaging UK institutions, such as BEIS and Ofgem, to maximise the benefit to Wales from the opportunities set out by the reserved framework.

Our original report set out ten recommendations (R1 – R10) which are summarised below. Given the changes we have all seen in the time since its publication in March 2019, it is only right to first examine whether they remain the right priorities. We then turn to look at the progress made to date, and at what Wales now needs to deliver by May 2026 to set the nation up to achieve its ambitions for 2035.

A lot has changed

Politics has caught up with our ambitions, and we now feel it is fair to expect much more robust Net Zero plans at Wales and UK level, with the spending commitments to match. Yet we are fast approaching the point where some of these answers will be required if any government, UK or Welsh, is to make the necessary impact on emissions required by 2030: 58% for Wales and 69% for UK. This Welsh Government term to 2026 is key, and the clock is ticking. Indeed, as I write these words in late October 2021, the UK Government’s Net Zero plan is hot off the press, with commentators still poring over the details and drafting their responses.

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Recommendations

1. Fund the future: through an immediate 12-18 month low carbon economic stimulus for Wales which accelerates action on renewable energy and energy efficiency.

2. Renew Wales’ homes: through improved building standards and a long term greener homes programme.

3. Retain the benefits in Wales: by requiring all new renewable projects above 0.5MW to have between 25 and 35% community and local ownership by 2020.

4. Use local land for local benefit: by ensuring that planning regulations and public land are used in support of new renewable energy schemes and create maximum local benefit.

5. Focus on delivery: by ensuring there is sufficient capacity and expertise in key public bodies to deliver the vision in practice.

6. Future-proof the grid: by getting the electricity grid ready to meet Wales’ energy aspirations.

7. Get SMARTer: by ensuring Welsh businesses, local and community organisations are supported to capitalise on and lead the shift to smarter energy technology and business transformation.

8. Get ahead in marine: by taking a coordinated approach between government, industry, academia and others to establish a global advantage over marine energy and floating offshore wind as niche Welsh services.

9. Harness the potential of bioenergy: enabling Wales to create a world class circular economy.

10. Decarbonise transport: through a comprehensive ‘Transport Decarbonisation Plan’ co-produced by key public bodies and the transport sector, backed up by a national travel survey.

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through improved building standards and a long term greener homes programme.

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Reflecting on the 2019 final Re-energising Wales report

With R1 (A low carbon stimulus) and R5 (Capacity building in key public bodies), the report sought to emphasise the need for urgent investment to secure the best of emerging renewables opportunities for Wales, with greater capacity across public institutions as well as wider incentives to the whole economy.

R7 (Support business and civil society) recognised that citizens, communities and governments also need businesses and civil society to act and transform their own operations to Net Zero so there should be packages of support to help them do so. With R2 (Renew Wales’ homes), R8 (Get ahead on marine), and R9 (Harness the potential of Brecon Beacons), the report identified three areas where Wales had a clear potential first-mover advantage because of existing Welsh powers, activity and innovation.

With R3 (Retain the benefits in Wales) and R4 (Use local land for local benefits) the report sought to secure economic benefit through direct or land ownership. Recognising that fit for purpose infrastructure is fundamental to our Re-energising Wales ambitions, R6 (Future-proof the grid), for Wales and R10 (De-carbonise transport with a plan) sought to ensure the energy grids and the transport system are fit for this ambitious 100% re-energised future.

Reflecting on these, in light of the impacts of the past 30 months, suggests that while our Re-energising Wales plan was indeed sufficiently bold in ambition (see are delighted that governments have caught up with the IWA’s ambitions on Net Zero), our work could have placed more urgent and stronger emphasis on:

— The economic arguments to secure Welsh benefits – and clear Unique Selling Points for Wales to prioritise
— The capacity, capability and infrastructure to enable the ambition
— Skills and supply chains for delivery.

Identifying Wales’ USPs (Unique selling points) will be crucial. Wales will play more than its part in addressing climate change, not just by reducing its emissions from a higher level than other comparable nations (given our fossil fuel history), but also by making the necessary adaptations to extreme weather impacts, which now seem likely to be locked in. Yet there are choices between economically advantageous ways of achieving this, and ways that deliver no economic benefit, or at worst become or remain economically extractive. Any Welsh Government plan for Net Zero needs to be for Wales.
With R1 (A low carbon stimulus) and R5 (Capacity building key public bodies), the report sought to emphasise the need for urgent investment to secure the best of emerging renewables opportunities for Wales, with greater capacity across public institutions as well as wider incentives to the whole economy. In recognising that citizens, communities and governments also need businesses and civic society to act and transform their own operations, R7 (Support business and civil society) focused on the packages of support needed to help them take up smarter energy technologies.

Our reflection, two years on, is that this ‘capacity’ should be thought of in terms of both increasing the amount of resources for existing plans (our original emphasis), and now increasing the emphasis on developing the necessary breadth of knowledge, skills and experience in public bodies. We do not believe that simply increasing the amount of resources is sufficient. The renewables mission for Wales will require a wider and deeper knowledge base, continued innovation and development, as well as an updated approach to delivery which better responds to the different priorities for different parts of the country’s energy system. Capacity building should become capability building.

Our contributors had fewer observations on the nature of support for business on this transition – which in part reflects that many of them are both already heavily involved in activity to decarbonise, offer support and advice in their own roles, and in many respects reflects the business and organisational priorities being either micro or sizable entities. The wider work of the Welsh Government highlights a range of particular broader decarbonisation measures, for example on steel, on batteries, efficient industrial processes, yet their focus on larger firms and multinationals continues to suggest that SMEs are least supported in the transition.

Contributors noted that some elements of business support would now best sit with the teams within each of the growth deals, as a focal point for business support to meet local collective ambitions and priorities.

On capacity building, many of our contributors saw signs of improvements, yet also raised concerns at the cumulative impacts of austerity, Brexit and Covid on local government. There was concern that the restructuring of delivery of European Structural Funds and resulting acrimony between the Welsh and UK Governments were unlikely to be helpful to the renewables agenda both in terms of further constraint on Welsh powers, and bandwidth diverted to contesting powers rather than using them. Nonetheless, this is the new economic reality within which Wales’ ambitions must be delivered, at least in the short term.

Most interviewees identified issues of capability and the need for skills and procurement capacity, while also pointing out ‘breaks’ that could help renewables deployment even without a significant increase in resources, eg changing the rules of the Public Sector Decarbonisation Scheme (administered by Salix on behalf of the UK Department for Business Energy and Industrial Strategy (BEIS)) to reflect the longer asset life of many renewable technologies. At present the scheme design can render some projects unviable, as it only offers finance over an eight-year period, whereas renewables projects can have an operating period of twenty years plus.

Since March 2019 there has not (yet) been the Wales-wide low carbon economic stimulus that our Re-energising Wales report called for. While many contributors highlighted that more could be done within existing devolved powers – from tweaking procurement and the public sector’s buying power, to reshaping the use of local government pension funds – they also all agreed more funding was required, and that more powers would help delivery too. This could, in turn, build on the Programme for Government commitment to ensure that each region in Wales has effective and democratically accountable means of developing their future economies.

Credit: only_kim, Shutterstock
What are Wales’ Energy USPs?

For ‘Get ahead in marine’, there are welcome commitments to raise Welsh ambition in these technologies, from a recent soft market test of a Tidal Lagoon Challenge, to exploratory work on Welsh ports as part of the supply chain development, as well as recent moves by BEIS to open up market opportunities to marine technology in the September 2021 Contracts for Difference Round Four announcement. If Wales is to maximise these opportunities, lessons should be applied from the work of the 2008/9 Industrial Strategy and subsequently to develop an off-shore wind sector on the east coast of England to serve the North Sea. The Celtic Sea and Western Approaches are already a competitive environment.

We should also aim for a clearer and more defined consenting process to ensure the timely deployment of marine renewables. Unlike in England, Welsh Marine Licences are not deemed under a Development Consent Order (DCO) but are determined separately. There is no clear timetable by which Natural Resources Wales (NRW) must determine Marine Licences for DCOs. This is a potential barrier to development, and risks making Wales less attractive than other parts of the UK, despite the underlying resource potential.

With regard to bioenergy, less activity was apparent to our contributors, which was put down to questions over the future of agricultural support in Wales and the UK post Brexit. It is worth acknowledging that there has been activity in related areas of policy such as wood production for bioenergy, the growing focus on tree planting for nature recovery and direct sequestration of carbon, and developing Welsh timber for use in low carbon buildings as part of the Welsh Government’s ambitions on low carbon housing.

With R2 (Renew Wales’ homes), R8 (Get ahead on marine), and R9 (Harness the potential of bioenergy) the report identified three areas for action where Welsh powers, existing activity and innovation offered first-mover advantage.

On ‘Renew Wales’ homes’, contributors highlighted a number of positive Welsh innovations, from Homes As Power Stations (HAPS), with 7,000 located in the Swansea Bay City Region, and related building and energy technologies, through to the Welsh Government’s Innovative Housing and Optimised Retrofit Programmes. The Programme for Government highlights a commitment to build 20,000 low carbon homes for rent. Yet there are also concerns, ranging from skills and workforce capabilities to the trajectory for building standards (particularly Part L) and, as importantly, building control to ensure what gets built does meet standards. Recognising that homes built now will have more than half their likely life after 2050, when Net Zero is expected to be achieved, standards of build need to rise with urgency, and be set in a plan that supports the sector to deliver. As one interviewee said ‘We can’t keep building poor stuff’. This suggests more of a sector-wide plan, and that such a plan could help make a market for Welsh firms, supporting them to transition to new skills and techniques of net zero and HAPS homes, for when markets elsewhere – ie England – catch up and need those capabilities.

For ‘Get ahead on marine’, there are welcome commitments to raise Welsh ambition in these technologies, from a recent soft market test of a Tidal Lagoon Challenge, to exploratory work on Welsh ports as part of the supply chain development, as well as recent moves by BEIS to open up market opportunities to marine technology in the September 2021 Contracts for Difference Round Four announcement. If Wales is to maximise these opportunities, lessons should be applied from the work of the 2008/9 Industrial Strategy and subsequently to develop an off-shore wind sector on the east coast of England to serve the North Sea. The Celtic Sea and Western Approaches are already a competitive environment.

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Securing economic benefits

With R3 (Retain the benefits in Wales) and R4 (Use local land for local benefits), the report sought to secure economic benefit through an element of direct community or local ownership of renewable ‘projects’ (between 5% and 33%) or opening up the availability of public land to support new schemes and create maximum local benefit.

Contributors noted the publication of the local ownership of energy generation policy statement, in February 2020; they also noted that work is underway between various agencies including Natural Resources Wales, local authorities and the Welsh Energy Service to explore how best to deploy public land for renewable opportunities.

Regarding the local ownership target, we agree with the Welsh Government’s estimate suggesting that the equivalent of between 6-10% of Welsh GVA leaves the Welsh economy every year through the payment of energy bills. The policy statement also highlighted the tension between the ambition of the equivalent generation target (70%) and the local ownership target (15GW) and concluded that aiming for 100% local ownership of renewables might present a barrier to development.

In its formal response to the final Re-energising Wales report, the Welsh Government also expressed concerns that setting a maximum level of direct community or local ownership (reflecting our recommendation of between 5 and 33%) might ‘inhibit ambition’. We should note that our recommendation was not intended to set a mandated maximum percentage ownership, but rather to indicate a realistic range that might be achieved.

Contributors noted progress on planning and planning policy that supported renewable deployment, yet also noted high carbon options still appear to be allowed. On both recommendations, many interviewees thought more could be done with greater urgency.

In addition interviewees identified the need to work through issues with the Crown Estate’s land ownership role in a devolved settlement, associated revenue flows; and the practical implications for offshore renewable deployment in the seas around Wales.

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In establishing the Local Ownership Working Group, the Welsh Government should publish its work as well as seek to show how local and community ownership is growing, year on year, in its annual energy report. What risks being lost in the approach to the working group are the opportunities for specific Welsh-owned firms bringing wealth into Wales by designing and/or manufacturing essential decarbonisation technologies, not just for Wales but for the world.

Policy to nurture such firms (in the sectors we have highlighted as having potential first-mover advantage) will help drive a more prosperous and globally responsible Wales. Rooted, Welsh-owned firms, creating world-leading technology, would contribute to both the local ownership target and the Re-energising Wales ambitions for stimulus. Percentage contributions from major developers do both less successfully.

Credit: Keith Jones, National Trust
Fit for purpose infrastructure is fundamental to our Re-energising Wales ambitions. R6 (Future-proof the grid, for Wales) and R10 (Decarbonise transport with a plan) sought to ensure the electricity grid and the transport system are fit for this ambitious 100% re-energised future.

On the latter, the majority of contributors noted some good progress on transport decarbonisation policy, with some key steps already in place, and further commitments in the Programme for Government – ranging from the Roads Review to plans for regional transport and integrated active travel, along with the aspiration to support remote working and introduce a Clean Air Act for Wales.

With regards to our recommendation for a fit for purpose electricity grid, progress has been slower, though we recognise that policy in this area suffers from the twin disadvantages of a lack of direct levers of influence and little track record of policy development and delivery comparatives; for example, housing and transport. Issues raised reflect some of those already apparent during the work of the Re-energising Wales project; namely: the constraints and high costs of connection; the need for greater capacity in public institutions, while acknowledging building blocks were being put in place, ranging from energy leads, ambition and projects in all four growth deal areas; the work of the Welsh Energy Service; the energy mapping for all four regions, and now the piloting of local area energy planning in Newport and Conwy. All point to the value of improved knowledge of what the electricity grid can do, and may need to do.

The creation of a ‘Grids’ group, recently announced by the Climate Change Minister and her Deputy, should create an opportunity to understand the shared priorities of the Welsh Government and network operators better, and to inform their business planning to support the development of projects in Wales; recognising that many will be led by other actors, e.g. local government, who should have a role.

The challenge from many contributors is the urgent need for the Welsh Government to set an agenda for the electricity grid companies to meet. Key to success will be moving beyond chicken and egg debates around anticipatory investment, to bringing together specific, deliverable projects in Wales, supporting Welsh USPs, with proactive solution-finding by network operators – in line with their obligations under the Incentive on Connections Engagement from the regulator Ofgem.

For its part, the Welsh Government will need to be clear and specific about what it expects of the energy system (more than just reliable supply), potentially along the lines of how to reduce demand, remove fossil fuels from supply, and get the best benefits for Wales at all levels, in an electricity world where efficiency, flexibility and optimisation are becoming the watchwords.
Overall, our contributors observe only limited progress against our original 2019 recommendations—though we all acknowledge the unforeseeable challenges all governments have faced during the period since publication.

New recommendations for 2021
We stand firmly by the ten original recommendations of the final Re-energising report, and feel that politics and policy—not just in Wales—have caught up with our ambitions. If we were to publish our report today, we would make two additional recommendations of areas for more detailed research and policy development.

**Recommendation 11**
would be to better reflect the challenges and opportunities available to a Welsh workforce with the right green skills (on this topic, recent announcements on new courses in the green economy are welcomed and encouraged). In 2022, the IWA will be scoping a piece of work on the topic of skills, recognising the increasing interest across sectors, trades and interest groups, and the need for an independent convenor to identify the core issues, and collaborate to find the best way forward.

**Recommendation 12**
would be to harness Wales’s renewable and natural resource wealth in longer term and more strategic ways. The Net Zero transition is likely to result in an intensive period of economic activity, and then settle into a more steady state. Wales should look to harness the wealth created during this period for the longer term, in a way which benefits future generations. We believe a Wales Wealth Fund is an idea whose time may have come.

Such a fund could be capitalised by a proportion of the £7.4bn additional GVA estimated in our original 2019 report. A long term fund, available to the Welsh Treasury, would complement smaller, local community benefit pots, or direct returns to individuals and businesses that are likely to be spent in the short term. We believe the starting point for this would be an inquiry by the Senedd Climate Change committee into how such a fund might work in Wales. The success of Norway’s sovereign wealth fund as a strategic vehicle for investing the country’s oil field profits for the public good has been widely reported. While the moment may have passed to replicate a success on the same scale as Norway, Wales could begin by exploring the experience of Shetland, following the Zetland County Council Act 1974, which allowed revenues to be captured in effect from parts of the supply chain from the then emerging offshore oil and gas industry.

**Conclusion—Prioritising the economic opportunities now, for the rest of the 2020s**

Looking at where most have observed the greatest progress—transport decarbonisation—it appears improvements were most obvious in areas where relevant powers were devolved, and resources had been put in place. Whilst we recognise that some observers might conclude more might be achieved with further devolution of powers, we again take the approach (as we did in 2019) of emphasising what can be done within current powers. This is in recognition of the political realities that further powers seem unlikely to be forthcoming any time soon, and of the urgent need for decarbonisation within the next decade. There is no time to wait for more powers.

The next stage therefore is for the Welsh Government to build on its successes in largely devolved areas, and expand its efforts on renewable generation regardless of the fact that some powers remain reserved to Westminster. There is still scope for action, some of which was explored during the Re-energising Wales programme of work particularly on renewable generation and marine opportunities, and on establishing a functioning framework for ownership benefits to be retained in Wales.

Both parties to the existing framework create opportunities for economic benefit in the form of incentives and direct subsidies.

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1 Six colleges have been awarded funding to deliver the courses, which will include areas such as electric vehicle maintenance, environmentally friendly heating systems and e-bikes. Press release, Education and skills, New college courses for jobs in the green economy, 8 July 2021
linked to flexibility and storage, future energy services, innovation in system management, heat, and smart networks. The Welsh Government should prioritise maximising the benefit to Wales from these opportunities using the tools it has, and recognising routes to these benefits can be both direct or indirect.

For better or worse, the rules of the game have been set. Wales risks losing out on the economic opportunities if we turn up to the football pitch holding a rugby ball.

Two years on, new ways of framing an economic approach are emerging (from foundational, everyday to circular to wealth building), and can offer a useful reference point. There may be risks in focusing on particular ‘frames’ of thinking only for them to fall out of fashion, become a victim of the political cycle, or lose their meaning.

More important is the urgency with which many of our contributors spoke of the need for delivery now, a need to move from strategies and plans to action, delivery teams, projects and outcomes. And from what we have heard and seen it is clear that Welsh renewable opportunities abound. We welcome the clear priority articulated by the Climate Change Minister to seek immediate areas for quick ‘no regrets’ actions.

Priorities for progress

We now also recognise a need to prioritise areas for immediate action through to 2026. Our observations and debate suggest the Welsh Government should prioritise:

- Making the most of Welsh USPs – marine, bioenergy and homes – with work on homes to both reduce demand, making 100% renewables more achievable, and provide some generation of their own; with bioenergy and marine as new sources of generation (R2, R8, R9).
- Setting out clearly the projects within these USPs that it will prioritise and support in the short to medium term for the energy system it wants in the long term. Only then can it hold DNOs and Ofgem to account for their role in delivering the electricity grid needed to maximise the opportunity of the USPs and to make them happen (R6).
- Developing a two-pronged approach to capability. Looking at building public sector capacity (R5) and the wider skills of the existing and future workforce (R11). Again making use of the levers it controls directly, such as planning and building regulations, to particularly promote the USPs.

These measures, suitably resourced, offer a speedy ramping up of action and hence greater urgency in impact. We are clear that this approach, building on and scaling up existing activity and capacity across Wales, offers the best route to economic success in this term of government. We are concerned that if the Welsh Government root their approach too heavily in detailed system planning for the very long term they will not maximise the opportunities available right now. That in the fear of backing the wrong technological horses, they will end up backing none, and see firms from outside Wales delivering, and profiting from, the implementation of its energy systems plan.

In turn that must mean some recommendations and other opportunities are not for immediate focus. That would include a lower priority for a distinct stimulus, local land use, and action on business support and transport decarbonisation, other than where they support the USPs. Beyond our recommendations it would definitely mean less attention in Wales to nuclear, blue hydrogen, or the ambitions of some for a publicly owned energy supply company. It is our view that none of these represent enough immediate opportunity for Wales, from Welsh action or Welsh convening power.

A new renewables mission for Wales

Professor Mariana Mazzucato has written of the opportunities created by economic missions. We propose that all of the actions outlined in our original report and in this one could converge on a simple point of focus; namely that Wales should aspire to be so successful in maximising the economic returns from the exploitation of our natural resources that we are able, within the period of our Net Zero targets, to begin capitalising a Wealth Fund which can invest our wealth, and make strategic, ethical investments to meaningfully complement Welsh Government’s taxation and consequential budgets in the long term. We fully accept that more thought would need to be given to the detail of this proposal.

The renewable economy is the economy of the future. Wales can show we are a small clever country. We can innovate by testing and scaling sustainable local bioenergy models, new approaches to energy efficient buildings, and world-leading marine renewables in all their forms. By doing this we can own, grow and earn a fair return by both driving the renewable opportunities available to our own communities, and also helping play a greater part in the global climate challenge.

That should be our renewed focus as we enter this crucial decade for the future of our planet.
### Appendix 1: List of individuals engaged with in developing this report

<table>
<thead>
<tr>
<th>Name</th>
<th>Organisation</th>
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<tbody>
<tr>
<td>Dr David Clubb</td>
<td>Afallen</td>
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<tr>
<td>Dan McCullum</td>
<td>Awel Aman Tev / Egw Coop representing Community Energy Wales</td>
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<tr>
<td>Ben Lewis</td>
<td>Barton Willmore, representing RenewableUK Cymru</td>
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<tr>
<td>Claire Cameron</td>
<td>Cardiff Capital Region</td>
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<tr>
<td>Robert D'Oyly</td>
<td>Cardiff Capital Region</td>
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<tr>
<td>Professor Calvin Jones</td>
<td>Cardiff University</td>
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<tr>
<td>Professor Phil Jones</td>
<td>Cardiff University</td>
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<tr>
<td>Rob Proctor</td>
<td>Community Energy Wales</td>
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<tr>
<td>Jack Wilkinson-Dix</td>
<td>Energy Saving Trust</td>
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<td>Indra Redrup</td>
<td>Energy UK</td>
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<td>Dr Eugene Powell</td>
<td>Future Generations Commission</td>
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<tr>
<td>Professor Gareth Wyn Jones</td>
<td>Independent</td>
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<tr>
<td>Huw Ineawa Davies M5</td>
<td>Member of the Senedd for Ogmore</td>
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<td>Tom Ye</td>
<td>Mid Wales Growth Deal</td>
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<tr>
<td>Thomas Rowley</td>
<td>Office of Delyth Jevell. Member of the Senedd for South Wales East</td>
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<td>Professor Martin Caw</td>
<td>Olsem</td>
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<td>Lisa Murphy</td>
<td>Olsem</td>
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<td>Dr Jan Baxter</td>
<td>Protium</td>
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<td>Rhys Wyn Jones</td>
<td>RenewableUK Cymru</td>
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<td>Tom Glaser</td>
<td>RWE Generation UK</td>
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<td>Helen Thomas</td>
<td>RWE Generation UK</td>
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<tr>
<td>Rachel Shorney</td>
<td>SP Energy Networks</td>
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<tr>
<td>Professor Ian Masters</td>
<td>Swansea University</td>
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<tr>
<td>Rebecca Emmett</td>
<td>Wales &amp; West Utilities</td>
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<tr>
<td>Neville Rookes</td>
<td>WLGA</td>
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In addition to our ongoing engagement with Ministers, advisors, and officials, a number of Re-energising Wales Steering Group members and others involved in renewables sector activity were engaged on their views of the changing environment, progress and what next, as detailed here.