

Policy actions for
wind, wave and tidal
Energy in Wales



RENEWABLEUK CYMRU MANIFESTO —2011

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Introduction

RenewableUK Cymru is a part of the UK's leading renewable energy trade association and represents the wind and marine renewables industries in Wales.

Wales is blessed with an enviable wind, wave and tidal resource, a growing pool of expertise and an industrial heritage that can be tapped for manufacturing, assembly and construction. It has the capability to be a world-class centre of excellence for renewables.

Wind energy has been the world's fastest-growing renewable energy source during the last few years, and this trend is expected to continue with falling costs and the urgent international need to tackle CO₂ emissions to mitigate against climate change.

It is important that the embryonic renewable energy technologies designed to exploit the potential of wave and tidal energy resources are helped in their development towards large-scale generation and commercialisation. Pursuing wind energy developments, which are currently the most viable and mature technology that can deliver in the short to medium term, will have a positive knock-on effect for the long-term development of marine renewables.

The current Welsh Assembly Government has set ambitious targets to generate renewable electricity in its Low Carbon Revolution Energy Policy Statement.¹ The industry fully supports these aims and will work with any future Welsh Government and National Assembly to ensure that the shared desire for Wales to have more sustainable energy is fulfilled.

However, it will be crucial for the next Government to understand what have been the main obstacles to the delivery of previous targets. Above all, RenewableUK Cymru will be seeking clear leadership and determination by the Welsh Government as they pursue their renewable energy goals and obligations. It is up to the renewable energy industry, its stakeholders and the Welsh Government to find ways to surmount the challenges so that we all move forward.

This manifesto sets out what the industry believes is required to help achieve renewable energy targets, so that Wales becomes more sustainable.

1. For more information visit wales.gov.uk/topics/environmentcountryside/energy/renewable/policy/lowcarbonrevolution/?lang=en

Overview

In the 1990's Wales became a pioneer in renewable energy as it led the way in establishing some of the first onshore wind farms in the UK.

Key targets:

1. Meet (in full) 2010 renewable energy targets as soon as possible, by providing leadership and facilitating the removal of obstacles.
2. Commit to achieving new renewable energy targets set by the Low Carbon Revolution Policy Statement, by fully exploiting renewable energy technologies, including mature technologies such as onshore wind that are ready and waiting to be deployed.

Much effort and investment has been exerted by wind energy developers and the wider industry to try to meet these targets. It is unfortunate and frustrating that this additional capacity has not been delivered – particularly the additional 800MW onshore wind energy target. The reasons for this lack of progress have been varied and complex, and include the slow rate of determination from planning authorities, the lack of grid infrastructure and the perceived difficulties of transporting turbines to the allocated sites for construction.³

This encouraging start tapered off and the Welsh Assembly Government decided that a strategic approach was needed. Given that energy matters are not devolved, efforts by the executive in Wales have been focused on shaping the planning system to be more favourable to renewable energy planning applications. The national planning guidance that was produced in 2005 is known as Technical Advice Note 8 (TAN 8).

TAN 8

TAN 8 covered planning for all forms of renewable energy technologies and aimed towards delivering a target of 10% energy generated from renewable sources by 2010. In order to achieve this target, most weight was given to wind energy as it was recognised that “the only way, with technology as it is now, of reaching that target is to use wind power”.² Onshore wind was given a technology-specific target to generate an additional 800MW by 2010, whilst offshore wind was set an additional 200MW target. Seven Strategic Search Areas were identified to guide where large-scale onshore wind farm development should be developed.

Working together

Despite this, we can be positive about the future deployment of both onshore and offshore wind in Wales and the emergence of marine technologies. There are wind farms that have received planning approval that are waiting to be built, and there are many more that are being prepared or are already within the planning system waiting for a decision. Indeed, there is more than enough activity from wind energy developers both onshore and offshore to far exceed the old targets of 2010 and contribute a significant share to the new targets of 2020. To ensure that these projects make a contribution towards clean energy targets, then, commitment is needed from government, industry and stakeholders to overcome these current obstacles to delivery.

2. Carwyn Jones, Minister for Environment, Planning and Countryside, 13 February 2007

3. For more information visit www.bwea.com/wales/index.html

Economic, environmental and social contribution

Developing renewable energy technologies will have wide benefits for Wales. Since the formation of the National Assembly there has been a strong emphasis on sustainable development.

Key targets:

1. Commit funds and support to develop Welsh ports.
2. Focus business support on renewables investment.
3. Standardise Welsh route-of-entry for skills training.
4. Work with industry to establish minimum requirements for community benefit funds.

Indeed, the legislation that created the institution made the promotion of sustainable development a legal requirement, and many strategies since have focused on how to improve the overall quality of life, including social, economic and environmental aspects.

Climate change

Renewable energy lies at the heart of promoting sustainable energy. In environmental terms, it reduces the need for energy generated from fossil fuels, hence reducing greenhouse gas emissions that contribute to global climate change. This aim is consistent with the current Government commitment to reduce emissions by 3% per year and by 40% on 1990 levels by 2020. It is also consistent with efforts by the UK Government, European Union and international treaties to reduce greenhouse gas emissions.

Security of supply and affordability

The growth in renewables will contribute towards securing energy supply and the general affordability of energy. The increasingly limited supplies of traditional fossil fuels, such as oil and gas, will lead to rising costs and restricted global distribution. As a result, there will be more people and societies struggling to afford the cost of their energy requirements. Advancements in all forms of renewable

energy will ensure that the UK will become less dependent on the need for fossil fuels. Increasing the supply from other sources of energy will also help to stabilise the rise in cost and hence tackle the affordability issues, such as fuel poverty. Securing energy supply and affordability are both economic and social issues related to the need for renewables.

Employment and GDP

Renewable energy also provides economic benefits, by creating employment and in generating income for the local areas that host them. A survey in 2010 estimated that the wind sector would be employing over a 1,000 people on high average salaries in Wales by 2012.⁴

RenewableUK Cymru believes that there will be huge economic gains to Wales from embracing the development of renewable energy technologies. Our survey found that the sector already contributes £158 million per annum to the Welsh economy, and that this is forecast to grow to £1 billion per annum, or 2.2% of GDP, by the end of this decade. The challenge for all of us is to ensure that as much of this turnover as possible is retained in Wales, by supporting business opportunities up and down the supply chain.

It is necessary to stress the immediate contribution that the timely deployment of onshore wind would bring to the economy, which would do much to secure future investor confidence in other potential alternatives, such as marine technologies in the Severn Estuary.

Welsh ports

Offshore wind sites that are being developed off the west coast of Britain also present construction, manufacture, supply and service opportunities for Welsh companies and ports. To ensure that Welsh ports have the infrastructure to attract investment to develop manufacture, supply and service capacity, the Welsh Government must replicate the announcement of development grants made in England and Scotland. Although RenewableUK Cymru is aware that there is work going on behind the scenes to help Welsh ports, it will be vital to quickly announce the availability of assistance grants and a workable strategy, if investors are to be attracted.

Community benefits

Community benefit payments, which are usually paid by wind farm operators to the local community (for both onshore and offshore projects), are expected to contribute millions into local Welsh economies in the coming years – funds that will be made available for environmental and social programmes.

For onshore projects, community benefits are usually paid by the wind farm operators on a per-megawatt-installed basis. Recent discussions instigated by the wind industry in England have resulted in the creation of a voluntary protocol for onshore wind community benefits, which would be independently audited and adhered to by RenewableUK members.

The same principles for community benefits apply to Wales and include flexibility, transparency, and agreement to work with local government and the local communities affected. There could be some differences to the models of protocol in Wales as a result of strategically locating large-scale wind farms in search areas. RenewableUK Cymru asks for the Government of Wales and the National Assembly Sustainability Committee to work with the industry to identify the minimum requirements for community benefits and to discuss the regime in which they would operate.

For offshore projects, it is too soon to develop a protocol. This section of the wind industry is less mature and therefore there is no standard practice that can be formalised. Wave and tidal projects are at an even earlier stage and cannot fit into a prescriptive system. In addition, an offshore community can be determined in more ways than onshore, and individual projects need flexibility to identify and engage with their communities in the most appropriate manner.

Onshore wind

Onshore wind has been at the forefront of increasing renewable energy capacity in Wales during the last two decades.

Key targets:

1. Produce onshore delivery plan, with WAG taking a visible lead to deliver policy.
2. Revisit TAN 8, protecting existing development areas, whilst identifying new areas.
3. Show clear planning assumption in favour of proposed developments within SSA's.
4. Do not allow major changes to identified boundaries.
5. Provide resources and support tools from WAG (e.g. senior official) to help LPA's deliver "local" schemes.
6. Transfer any further devolved powers to WAG rather than LPA's.
7. Decision on associated development powers to be called in by WAG.

Developer interest remains high and there is a significant amount of effort and investment in developing new wind farms that will contribute to overall renewable energy targets. The total capacity that is currently waiting for approval is three times the capacity already operating on the ground. Other projects have received planning permission and are awaiting construction, and there are many potential wind projects that are being prepared for submission to the planning system. If we consider all these projects together, then the contributing potential to renewable energy from onshore wind is already close to the 2GW that is the current Government's Low Carbon Revolution Policy Statement target. There are clear benefits, environmental, economic and social, to harnessing this potential in full.

There are several obstacles that currently delay the delivery of onshore wind energy potential, as was mentioned in the Overview section. RenewableUK Cymru believes that all of these obstacles are surmountable and the potential can be delivered. In overcoming some obstacles, however, a proactive approach by the Welsh Government is needed.

Leadership

As meeting renewable energy targets is ultimately the responsibility of government, we believe the Welsh Government must take the initiative and provide clear and visible leadership. The Government has the authority and ability to take an active role in tackling many problems, which will increase the rate of delivery, as has sometimes been shown in regard to some of these challenges.

Onshore wind farms in Wales:

Operational	32	380 MW
Under construction	17	271 MW
In the planning system	24	1279 MW
Total	73	1930 MW

Helping to increase the rate of delivery will ensure that the Government's own targets are met by the industry. The Government should look at the question strategically and draw up a detailed plan on how to achieve its targets.

Grid and transport issues currently present an obstacle to the delivery of 2010 onshore wind targets, and RenewableUK Cymru is working with key stakeholders to ensure that they are overcome. The Welsh Government has an important role to ensure that all partners work constructively together to find timely solutions. In particular, WAG has a role in communicating to the public the need and role of grid upgrades and new lines in order to deliver Wales' renewable energy objectives.

New areas

The defining document for the onshore wind industry during the last few years has been TAN 8. The industry accepted the adoption of a strategic, as opposed to a criteria, approach to the location of large-scale wind farms. However, directing all significant developments to only seven Strategic Search Areas (SSAs) has resulted in cumulative impacts, because of the concentration of a number of wind farms in the same vicinity. Developers have followed the policy guidance set out by TAN 8 and concentrated their efforts and investment on the existing identified areas. The status of these must now be maintained as areas for the potential development of large-scale wind farms. However, in order to increase the capacity of onshore wind in a way that would limit turbine density and additional cumulative impacts, RenewableUK Cymru has called for TAN 8 to be revisited, to identify new areas suitable for development. This might take the form of identifying additional SSAs, extending existing SSAs or adopting a criteria-based approach for sites beyond the existing SSAs.

Local authorities

TAN 8 clearly establishes the principle that large-scale wind farms should be developed within the SSAs, and a presumption in favour of wind farm applications in these areas. This guidance is not consistently applied by Local Planning Authorities (LPAs) in Wales. Some LPAs have made decisions that are contrary to the recommendations of their own planning officers and to national planning policy. Some statutory public bodies have also been inconsistent when commenting on proposals. RenewableUK Cymru asks the elected Government to use its authority and legitimacy to underline the urgency and need to deliver renewable energy projects. It is suggested that the Welsh Government actively monitors progress towards the targets and uses its call-in powers where appropriate to determine planning applications itself.

The TAN 8 document did make provisions for LPAs to make minor adjustments to SSA boundaries. However, this has been misused and some LPAs have undertaken a lengthy “refinement” process. These have resulted in some authorities suggesting major revisions that significantly reduce the size of the original areas. RenewableUK Cymru welcomes the recent emphasis in the consultation of Section 12 of Planning Policy Wales (PPW), which cautions against local alterations to TAN 8 boundaries through development plans.

The industry recognises that wind farm planning applications are often complex and attract significant public interest. Within the SSAs, many LPAs are under-resourced and are currently dealing with a significantly large number of wind farm planning applications. This pressure is likely to increase, particularly if, as is suggested in the PPW consultation, local authorities will be responsible for identifying opportunities and sites for renewable energy projects of up to 25MW in their areas. RenewableUK Cymru appreciates the introduction by the current Government of a “Tool Kit” pamphlet and the availability of a grant scheme that will assist local authorities. However, it is considered that LPAs do not have the resources and expertise to support assessment exercises designed to identify the renewables capacity in their areas. In order to further assist the required work, we call for greater and permanent assistance grants and other innovative ways to assist LPAs, such as establishing a wind farm expertise capacity within WAG that can be made available to advise appropriate LPAs, in addition to allocating senior officials to help deliver local schemes.

Further powers

RenewableUK Cymru recognises the long-standing policy held by the four main political parties at the National Assembly for planning decisions on projects above 50MW to be devolved. RenewableUK Cymru members will seek to work positively with any new regime. Nonetheless, because of the national importance and strategic need to deliver renewable energy, we would strongly oppose any change that saw these devolved decision-making powers being transferred to local authorities. Decisions on nationally significant infrastructure projects must be properly resourced and linked to the professional energy expertise available within Planning Inspectorate Wales. The devolution of further planning powers would give the Welsh Government an opportunity to demonstrate its commitment to the delivery of renewable energy, and any devolved planning powers should be used to increase the rate of deployment. If further powers were devolved in this regard it would be critical that the Government takes direct responsibility on consent for projects above 50MW, with the Minister taking a final decision based on an assessment provided by Planning Inspectorate Wales.

Associated developments

Currently, local authorities determine planning applications for “associated development” that are linked to nationally significant infrastructure projects, which are determined by the Infrastructure Planning Commission (IPC). This is unlike the regime in England, in which the IPC can consider associated developments alongside decisions taken on nationally significant infrastructure projects. In Wales, the IPC will determine the application for wind farms above 50MW and new grid lines above 132kV; however, the essential grid substations will be determined by the LPA.

Given the strategic importance that associated developments have in significant infrastructure projects, it is RenewableUK Cymru’s view that the Assembly Government should use its call-in powers to determine these applications. This is particularly relevant in the case of renewable energy proposals, which are vital to meeting government renewable energy targets.

Offshore wind

In 2009, the UK became the global leader in terms of installed capacity for offshore wind energy.

Key targets:

1. Produce offshore wind delivery plan showing how WAG can assist the commissioning of offshore wind farms.
2. Sustainability Committee to scrutinise Minister and industry as to the rate of offshore energy delivery.
3. Ensure that MCZ's do not unnecessarily impair or restrict capacity of marine renewable energy sites.
4. WAG Marine Unit to be adequately resourced and have the necessary expertise.

Offshore wind is a rapidly growing source of energy that will make a significant contribution to the European Union targets set for 2020. There is currently a potential programme for 47GW of offshore wind to be developed, which would amount to more than one third of the UK's electricity consumption. The total seabed-mounted offshore wind capacity for the UK has been estimated at 116GW.⁵ If developed, this would see the UK become a net electricity exporter.

Wales took an early lead in regards to offshore wind farms with North Hoyle becoming the first major UK offshore renewable energy project, commissioned in 2003. Rhyl Flats followed in 2009, and there is now great expectancy for the Gwynt y Môr project, which will be one of the largest offshore wind farms in the world when it comes online in 2014.

Offshore wind has developed in a series of competitive leasing rounds, administered by The Crown Estate, which is the landlord and steward of the seabed in the UK. Two rounds have been issued and a third was finalised at the start of 2010. As a result of Round Three, two additional sites have been identified for potential energy development off the coast of Wales – the Atlantic Array site with a capacity potential of 1.5GW, and the Irish Sea site with 4GW. Together they have the potential to power up to four million households. The cumulative contribution from existing, approved and planned offshore wind farm sites goes far beyond the current Welsh Government targets, set in the Low Carbon Revolution Policy Statement, to be reached by 2015/16.

Delivery plan

RenewableUK Cymru welcomes the growth and support shown to offshore developments by the Welsh Government. However, in order to turn potential into

fruit, RenewableUK Cymru calls for a detailed Offshore Delivery Plan to be drawn up, outlining clearly what can be done on a Welsh level to assist the timely commissioning of these offshore wind projects.

Scrutiny

The success or failure of delivering future renewable energy targets should be thoroughly scrutinised. Although determination for offshore wind farms will be outside the responsibility of local authorities and usually outside the responsibility of the Assembly Government, they will maintain an influential role in decision-making.

RenewableUK Cymru asks that the next Sustainability Committee of the National Assembly (or its successor) regularly scrutinise the Minister and industry as to the current progress towards achieving renewable energy targets as set out in the Low Carbon Revolution Policy Statement.

Marine Planning

There is currently an on-going process to identify designated Marine Conservation Zones (MCZs) around the coast of Britain. The current Welsh Government has indicated that it prefers the establishment of a small number of highly protected areas – which would have far greater restrictions on potential commercial activity than other MCZs. Whilst conservation is crucial to the marine environment, marine planning should balance all elements of sustainable development, including the need for renewable energy and socioeconomic activity. Planning shouldn't be overly focused on ecological conservation issues above all other activity. New MCZs shouldn't unnecessarily impair or restrict the capacity of sites designated for marine renewable energy development.

The Marine Unit of the Assembly Government should be adequately resourced and have the necessary expertise to conduct the same functions that the Marine Management Organisation (MMO) has been charged to do in England. As offshore wind expands, then the demands on officials will increase, and the Welsh Assembly Government must adequately plan for this.

As stated above, the investment in offshore wind farms stands to provide huge economic benefits for Welsh businesses and the workforce. RenewableUK Cymru will work with government to highlight case studies of Welsh businesses that are already benefiting and to identify what needs to be pursued for this trend to increase and continue.

Wave and tidal

In addition to offshore wind, there are other sources of marine energy waiting to be exploited.

Key targets:

1. Produce delivery plan showing how to achieve ambitious WAG targets for wave and tidal technologies.
2. Explore possibilities to introduce alternative marine technologies in the Severn Estuary.
3. Leasing round to be brought forward by The Crown Estate for wave and tidal areas.
4. Ensure adequate resources and expertise for WAG Marine Unit.
5. Maximise EU funds for R&D and for testing sites for marine renewable technologies.

The embryonic tidal stream and wave technologies do not currently generate grid-connected electricity in Wales. However, the Low Carbon Revolution Policy Statement has ambitious targets to generate up to 4GW of energy from these technologies by 2020/5. RenewableUK Cymru welcomes and fully supports the ambitions of the current Welsh Government, and calls for a detailed delivery plan to map out how these bold ambitions will be achieved.

The UK is at the forefront of the wave and tidal industry, through its research and development (R&D) programmes and test facilities. The successful transition of these technologies into the commercial phase will make a valuable contribution to renewable energy targets, whilst also providing new economic and business opportunities.

Severn Estuary

Areas identified as having a large potential for wave and tidal energy include the Severn Estuary, off the coast of Pembrokeshire and off the coast of Anglesey. The UK and Welsh Governments recently undertook a feasibility study into the options available for generating renewable energy in the Severn Estuary. Options for renewable energy developments in the estuary have been discussed for many years, culminating with the current UK Coalition Government decision not to pursue plans for a large-scale tidal range barrage. It is RenewableUK Cymru's view that this merited decision should not stop ideas and efforts to bring forward alternative technologies, including the possibilities of tidal fence technology.

With one of the largest tidal ranges in the world, the potential for the Severn Estuary to generate large amounts of renewable energy shouldn't be overlooked just because a single traditional tidal range technology has now been deemed unfeasible. RenewableUK Cymru calls on the next Welsh Government to identify the Severn Estuary as a major

area of interest for renewable energy generation and reassess the technical options available for project development.

Wave and tidal strategic areas

RenewableUK Cymru is aware that the current Government is considering infrastructure requirements needed to develop test, demonstration and commercialisation sites for the marine energy sector in Wales. We support this assessment and would encourage The Crown Estate to work with the next Government to bring forward a leasing round for wave and tidal projects, as has been seen in the Pentland Firth marine area in Scotland.

The designation of Marine Conservation Zones (MCZ) should not unnecessarily impair the potential for wave and tidal energy developments within or in the vicinity of designated areas. RenewableUK Cymru will continue to work with other marine stakeholders, through such bodies as the Welsh Coastal and Marine Partnership (WCMP), to ensure that the Welsh Assembly receives adequate advice on MCZ designations, and we look forward to responding to the "Approach to Marine Planning" consultation document.

Funding and resources

Marine renewable technologies are still in their infancy and far from being commercialised on a large scale. It is important to ensure that the Marine Consents Unit of the Welsh Government is adequately resourced and that it increases its marine energy expertise to enable it to take adequate actions that will support marine energy developments.

Developing marine technologies so that they can ultimately contribute to renewable energy targets will require continued R&D funding, academic research and the allocation of testing grounds. RenewableUK Cymru calls for academic research work conducted by the Low Carbon Research Institute (LCRI) group to be continued. The LCRI has secured £34 million over the next three years from European Structural Funds, which are administered by the Welsh European Funding Office (WEFO). We welcome that the focus of this funding will enable universities and their industry partners to lead the way in low-carbon energy research and would emphasise the agenda of marine energy technologies. RenewableUK Cymru would like to explore the possibilities of maximising European funding for R&D and technology development for the wave and tidal sectors with WAG, the LCRI and the WEFO, and call on the Welsh Government to instigate and lead in this process.

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