

**OFFSHORE RENEWABLE ENERGY STRATEGIC  
ACTION PLAN 2012-2020**

**PROGRESS REPORT 1 APRIL 2016 TO 31 MARCH  
2018**

## Introduction

1. Chapter 5, paragraph 3 of the Offshore Renewable Energy Strategic Action Plan (ORESAP) 2012-2020 commits the Department for Enterprise Trade and Investment (DETI) – now the Department for the Economy (DfE) – to produce an annual report on progress against the actions within the ORESAP.
2. To date two reports have been published, the first covering the period March 2012 to September 2013 and the second covering the period October 2013 to March 2016. The previous reports can be found at <https://www.economy-ni.gov.uk/publications/oresap-progress-reports>.
3. The purpose of this (third) report is to cover progress made in the period April 2016 to March 2018.
4. Reports were to be considered by the Sustainable Energy Inter-Departmental Working Group (SEIDWG)<sup>1</sup> and shared with the Enterprise, Trade and Investment Committee of the Northern Ireland Assembly. The SEIDWG is no longer in operation. However, the reports will now be considered by the Electricity Stakeholders Group (ESG)<sup>2</sup>. They will also be shared with the Economy Committee of the Northern Ireland Assembly once it is re-established.

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<sup>1</sup> The SEIDWG was chaired by the DETI Minister and membership was made up of senior officials from all NI Government Departments and representation from the NI Authority for Utility Regulation. SEIDWG had three sub-groups looking at economic opportunities, energy efficiency and communications.

<sup>2</sup> The ESG is chaired by the DfE Permanent Secretary and consists of membership from the NI Utility Regulator, SONI, NIEN and DAERA

Actions	Action / Status
<p><b>Publish SEA Post Adoption Statement</b></p>	<p><b>Action Completed.</b> The Strategic Environmental Assessment (SEA) Post Adoption Statement was published in July 2012 and is available on <a href="http://www.offshoreenergyyni.co.uk">www.offshoreenergyyni.co.uk</a> along with all the other SEA related documents.</p>
<p><b>Continue to work closely with The Crown Estate (TCE) to ensure the optimum benefits for Northern Ireland through successful offshore renewable energy leasing in Northern Ireland waters.</b></p>	<p><b>Ongoing.</b> Since TCE awarded development rights in October 2012 to one offshore wind and two tidal projects, all three had been working closely with The Department for Agriculture, Environment and Rural Affairs (DAERA), DfE, TCE and other stakeholders through the Environmental Impact Assessment (EIA) process.</p> <p>In December 2014, <b>First Flight Wind</b><sup>3</sup>, the consortium involved in the offshore wind project off County Down, announced that it had taken the commercial decision not to proceed. TCE confirmed that with the withdrawal of this project, the Offshore Wind Resource Zone off the east coast of Northern Ireland no longer held any formal status and the re-leasing of this area was not envisaged in the short to medium term.</p> <p><b>Fairhead Tidal Array</b>  DP Marine Energy on behalf of Fair Head Tidal Energy Park Ltd<sup>4</sup> submitted a marine licence application for the proposed development of a 100MW tidal array off the Antrim coast at Fairhead in January 2017. Following a statutory 42 day public consultation, DAERA has assessed the consultation responses, and is in the final stages of drafting a marine licence. If a licence is granted, this will open the way for DfE to consider an application for consent to construct and operate a generating station under Article 39 of The Electricity (Northern Ireland) Order 1992.</p> <p><b>Torr Head Tidal Array</b>  A marine licence was issued to Tidal Ventures Ltd<sup>5</sup> in December 2016. A DAERA-led science group will oversee the implementation of the licence and the project's environmental management. The project subsequently received Article 39 consent from DfE in June 2017. A</p>

<sup>3</sup> First Flight Wind Ltd was a consortium comprising B9 Energy, RES and DONG Energy (now Ørsted)

<sup>4</sup> Fair Head Tidal Energy Park Limited IS A Special Purpose Vehicle established to develop the Fair Head tidal energy site. The SPV is jointly owned by DP Marine Energy Ltd and Bluepower NV.

<sup>5</sup> Tidal Ventures Ltd is a joint venture between Brookfield Renewable and OpenHydro (a DCNS company) to deliver a tidal array project at Torr Head, Antrim

Actions	Action / Status
	<p>planning application has not yet been submitted for any onshore elements of the project. The grid connection through System Operator Northern Ireland (SONI) will take at least five years. No work on the marine element of the array is likely until planning permissions and grid connections have been agreed.</p> <p>DfE continues to liaise with TCE on the latter's ongoing policy development for offshore renewable energy commercial and test/demonstration opportunities across the UK. In recent months, this has included discussion around the potential for a further seabed leasing round in UK waters in 2019, information on which can be found at <a href="http://www.thecrownestate.co.uk/energy-minerals-and-infrastructure/offshore-wind-energy/working-with-us/potential-new-leasing/">http://www.thecrownestate.co.uk/energy-minerals-and-infrastructure/offshore-wind-energy/working-with-us/potential-new-leasing/</a>.</p>
<p><b>Actions arising from the Strategic Environmental Assessment and Habitats Regulations Appraisal</b></p> <p>(i) consider a cross departmental approach to filling strategic data and knowledge gaps and increasing the collection and availability and accessibility of current data sets.</p>	<p><b>Action Completed.</b> DAERA completed a gap analysis. Many of the identified gaps have now been filled at project level through the EIA process and so many of the gaps and knowledge identified at SEA stage have now been filled through EIAs in both Northern Ireland, and through the Scottish MEYGEN tidal array<sup>6</sup>.</p> <p>In addition, TCE, the UK Department for Business, Energy and Industrial Strategy (BEIS) and Marine Scotland<sup>7</sup> are taking forward a key strategic research programme to de-risk the consenting of UK-wide offshore wind projects through the Offshore Renewable Joint Industry Programme (ORJIP)<sup>8</sup>, on which DAERA is represented (and to which DfE is an observer). The work is focussed around four projects examining bird collision risk and avoidance rate monitoring; population consequences of acoustic disturbance; underwater noise mitigation technologies and measures. DAERA is also represented on ORJIP Ocean Energy which focuses on wave and tidal research (again, DfE has observer status to this group).</p>
<p>(ii) promote proposals for the adoption of a “<u>deploy and monitor</u>” approach to the</p>	<p><b>Action Completed.</b> DAERA has pioneered the ‘survey, deploy and monitor’ strategy through the MCT SeaGen tidal device in Strangford Lough, which was granted a marine licence in</p>

<sup>6</sup> The Meygen Tidal Stream project is located between the northernmost coast of Scotland and the Island of Storma and is being taken forward by developer Atlantis Resources Ltd

<sup>7</sup> Marine Scotland is responsible for the integrated management of Scotland's seas.

<sup>8</sup> ORJIP is a UK-wide collaborative programme of environmental research with the aim of reducing consenting risks for offshore wind and marine energy projects. Currently there are two ORJIP streams: [Offshore Wind](#) and [Ocean Energy](#).

Actions	Action / Status
<p>deployment of commercial scale development on a phased approach, to increase knowledge of possible impacts as well as building on information from other developments such as those being deployed in the Pentland Firth.</p>	<p>2008. This approach has been at the forefront of marine renewable device technology and deployment and continues to evolve both in Northern Ireland and in Scotland. SeaGen will be decommissioned in 2018-19.</p>
<p>(iii) develop a Project Level Mitigation Strategy to ensure that the necessary mitigating actions, as identified in the Environmental Report and the HRA are satisfactorily considered and addressed as individual projects come forward.</p>	<p><b>Action Completed</b> A Project Level Mitigation is incorporated into the Marine Licences.</p>
<p><b>Work with NIE, the System Operator (SONI) and the Utility Regulator of Northern Ireland (UREGNI) to facilitate the development of the NI Grid to handle the increasing renewable electricity generated offshore.</b></p>	<p><b>Ongoing.</b> The NI Authority for Utility Regulation (NIAUR) published the outcome of its offshore connection consultation in December 2013 and, in October 2014, NIE/SONI confirmed that offshore renewable energy developers could apply for grid connection on foot of agreement for lease / development rights from TCE, rather than having to await onshore planning permission. The Regulator has also set up an operationally focussed group (Renewables Grid Liaison Group<sup>9</sup>) considering grid matters which includes the NI Renewables Industry Group, NIE and SONI and which DfE attends in an observer capacity.</p> <p>In 2011 Eirgrid (which has owned SONI since 2009) launched the DS3 (Delivering a Secure, Sustainable Electricity System) Programme the aim of which is to meet the challenges of operating the electricity system in a secure manner while achieving the 2020 renewable electricity targets for Ireland and Northern Ireland. The DS3 Programme is designed to ensure that Eirgrid/SONI can securely operate the power system with increasing amounts of variable non-synchronous renewable generation over the coming years. Achieving this level of renewable integration on a synchronous system is unprecedented and presents significant challenges for the real-time operation of the power system.</p> <p>So far the DS3 programme has enabled EirGrid/SONI to increase levels of renewable</p>

<sup>9</sup> <https://www.uregni.gov.uk/renewables-grid-liaison-group>

Actions	Action / Status
	<p>generation possible on the system at any given time from 50% to 65%, with the aim of increasing this incrementally to 75% over the coming years.</p> <p>In January 2018, SONI and NIE Networks issued a joint consultation document on connecting further electricity generation in Northern Ireland. This included exploration of how further connection offers might be made in the future i.e. by adopting more innovative approaches rather than traditional network investment. The consultation closed on 9 March and responses are currently being reviewed with a view to publishing a decision paper in Q2 2018.</p>
<p><b>Consider, with Scotland and the Republic of Ireland, the initial findings of the joint Isles Project to assess the potential for an offshore regional marine electricity grid linking Ireland and Scotland.</b></p>	<p><b>Action Completed</b> The first phase of the ISLES (Irish-Scottish Links on Energy Study) project, in April 2012, concluded that a cross-jurisdictional, offshore, integrated network is feasible, under certain circumstances, and recommended a second project to achieve further action ‘towards implementation’. ”ISLES II” received INTERREG IVA funding in 2013 and involved three distinct work-streams: the Spatial Plan, the Network Regulation and Market Alignment Study and the Business Plan.</p> <p>The purpose of the project was not to commission any generation/construction projects but to undertake environmental studies, identify regulatory issues for potential investors and provide information that would prove useful in the event of developer interest. The project was delivered successfully in June 2015. Copies of the reports are available at the dedicated project website: <a href="http://www.islesproject.eu/isles-ii/">http://www.islesproject.eu/isles-ii/</a>.</p> <p>A third phase of the project was informally proposed but lost momentum when NI’s only offshore wind project was discontinued and no other “anchor” projects expressed an interest in NI or the other jurisdictions.</p> <p>The findings of the ISLES project have been fed into the discussions at British-Irish Council (BIC) Energy Sector Working Group meetings which includes representatives from NI, Ireland, Scotland, Guernsey, Jersey, the Isle of Man, the UK and Wales. Some of these jurisdictions have potential investors conducting feasibility studies into marine energy sources (tidal) and offshore wind and the group is exploring any areas with potential for collaboration between jurisdictions.</p>
<p><b>Continue to work with Invest NI, The</b></p>	<p><b>Ongoing.</b> Invest NI continued to promote supply chain opportunities in the offshore renewable</p>

Actions	Action / Status
<p><b>Crown Estate and others in promoting the opportunities for local manufacturing and service sectors to secure offshore energy supply chain business in relation to projects considering investment in NI waters and also in the wider international and national market</b></p>	<p>sector to individual companies, through collaborative networks and also through the Local Economic Development measure with local councils. It also continues to work with the Department for International Trade (DIT) to promote the UK as a location for offshore wind investment and Invest NI's London-based office remains active in encouraging construction related opportunities in the renewables sector. The London team encourage inward visits to explore opportunities e.g. a visit in April 2017 from major French renewable energy company Ideol to explore opportunities from the established NI DONG supply chain and research at NI universities.</p> <p>Other notable highlights on supply chain development included:</p> <p><b>Harland &amp; Wolff (H&amp;W)</b>  In April 2017, H&amp;W secured an agreement with ST3 Offshore, a leading European manufacturer of offshore steel foundations, to manufacture and export 24 suction buckets to ST3's advanced serial manufacturing plant in Stettin, Poland, where they are to be fitted to the jacket foundations for the Borkum Riffgrund 2 offshore wind farm located in the German Bight (North Sea).</p> <p>In January 2018 MV Mega Caravan arrived at H&amp;W's Building Dock transporting the first batch of jacket components from Lamprell Energy Limited in Dubai for assembly as part of ScottishPower Renewables' £2.5 billion East Anglia ONE project in the North Sea.</p> <p>H&amp;W has also continued to support Scotrenewables and its new version of the SR2000 tidal turbine. The current SR2000, the world's largest operating tidal turbine, was launched from H&amp;W in May 2016 before being towed to Orkney. The project has been supported by Scottish Enterprise's WATERS II scheme along with investments from Scotrenewables' shareholders which include ABB, DP Energy, Fred Olsen, Total and the Scottish Government via the Renewable Energy Investment Fund (REIF).</p> <p><b>Graham Construction</b>  Graham Construction was involved in construction of the <u>Caithness Converter Station</u>, a new</p>

Actions	Action / Status
	<p>£15.2m HVDC 1200/800MW link which will connect the transmission network between Blackhillock Substation in Moray and Spittal Substation in Caithness, incorporating HVDC converter stations in Blackhillock and Spittal and interconnecting subsea and underground HVDC cables. This forms part of Scottish Hydro Electricity Transmission Ltd's Caithness Moray Shetland scheme to transfer generated power from renewable power projects in the north of Scotland to the UK electricity transmission grid.</p> <p>Graham Construction, working with Samsung, has designed and constructed of an offshore 7MW <u>prototype wind turbine in Methil, Fife</u> (£12m). It is one of the largest wind turbines in the world with a nacelle height of 110m and tip of blade height 196m from mean sea level.</p> <p>Working for Rolls Royce, Graham Construction has taken forward the <u>CPC Generation Project</u> (£40m). This project forms part of a redevelopment programme at Raynesway, Derby. The 3 year phased programme focuses on replacing time expired manufacturing whilst retaining existing manufacturing capabilities. With new buildings to include:</p> <ul style="list-style-type: none"> <li>• 2,400m<sup>2</sup> Reception Building;</li> <li>• 520m<sup>2</sup> Energy Centre;</li> <li>• 7,200m<sup>2</sup> Manufacturing Facility; and</li> <li>• 1,500m<sup>2</sup> Product Assembly Building.</li> </ul> <p><b>McLaughlin &amp; Harvey (McL&amp;H)</b>  McL&amp;H have secured various contracts totalling £6m in relation to the <u>Openhydro Test Platform Installation</u> at the European Marine Energy Centre (EMEC)<sup>10</sup>, Orkney. They have developed a method for the installation of gravity base structures onto the seabed and commissioned a bespoke installation barge. The team deployed the gravity base complete with tidal turbine directly onto the seabed at the EMEC. This ground breaking innovation reduces installation time on tidal sites from months to minutes.</p> <p><b>Cimpina</b></p>

<sup>10</sup> Established in 2003 and located in Orkney, The European Marine Energy Centre (EMEC) Ltd is the first and only centre of its kind in the world to provide developers of both wave and tidal energy converters – technologies that generate electricity by harnessing the power of waves and tidal streams – with purpose-built, accredited open-sea testing **facilities**.

Actions	Action / Status
	<p>A partnership fostered through the Ocean Power Innovation Network (OPIN) has resulted in Belfast-based firm Cimpina securing the contract to manufacture a Subhub for Scottish firm QED Naval, which will power tidal turbines in Orkney.</p> <p>While wave energy is currently at pre-commercial stage, tidal energy is more advanced and Northern Ireland has some of the best tidal resources in the world. Invest NI is keen to ensure its companies are closely involved in the marine renewable industry as they stand to benefit from access to future supply chain and provision of innovative solutions.</p> <p>The Centre for Advanced Sustainable Energy (CASE)<sup>11</sup>, supported by Invest NI, is an industry led enterprise to transform research into commercial success and, the marine renewable energy sector is a key target. In that regard they are offering support to an application from the EMEC under the Industrial Strategy Challenge Fund. CASE are supporting EMEC in this proposal to ensure that opportunities for Northern Ireland are fully described.</p> <p>DfE officials are seeking discussions with their BEIS counterparts to ensure that Northern Ireland interests are taken into account during the development of the Offshore Wind Sector Deal which was announced as part of the UK Industrial Strategy<sup>12</sup>.</p>
<p><b>Continue to work with the relevant authorities in the UK and Ireland to build on the progress achieved through the signing of the MOU for offshore renewable, as required.</b></p>	<p><b>Ongoing.</b> Invest NI has continued to liaise with DIT in relation to offshore/marine and with developers to increase awareness of supply chain capability and opportunities for NI companies to penetrate Irish and Scottish markets. Specifically to assist H&amp;W, Invest NI has worked with BEIS to try to develop relations and opportunities with the MoD.</p> <p>From 2016 onward the growing strength of networking and collaboration has been between Scotland, Ireland and Northern Ireland. The OPIN is facilitated by Invest NI, Scottish Enterprise and Sustainable Energy Authority Ireland (SEAI) with the aim of advancing the development of</p>

<sup>11</sup> Established in September 2013, CASE can access £5m of research grant to fund collaborative R&D projects in partnership with academics at Queen's University Belfast, University of Ulster and the Agri-Food and Biosciences Institute. It can also signpost companies to other grant support through Invest NI, UK Government, the EU and Internationally.

<sup>12</sup> Sector Deals are partnerships between the government and industry on sector-specific issues with the aim of creating significant opportunities to boost productivity, employment, innovation and skills. They are not about Government providing additional funding but are open calls to business to organise behind strong leadership to address shared challenges and opportunities through collaboration.

Actions	Action / Status
	<p>ocean energy and drive technology innovation. The network’s mission is to advance innovation by learning from experts in other industries, to push the boundaries of what’s possible in ocean energy and progress innovative ocean projects in a coordinated way. It focuses on collaborative initiatives, knowledge sharing, applied learning and creative thinking in ocean energy technology development.</p> <p>Northern Ireland has eight representatives from industry and three local research institutes involved in the OPIN network which is made up of over 60 members from Scotland, Northern Ireland and the Republic of Ireland. This is currently being expanded.</p> <p>60 – 80 participants have attended OPIN events in Dublin, Glasgow and Belfast (the last event hosted in Belfast in March 2017). This provided a forum for key influencers and businesses within the industry to get together to drive innovation and change.</p> <p>Other important industry groups in which Invest NI is active includes the Irish Wind Energy Association (IWEA), the Marine Renewables Industry Association (MRIA) and the Northern Ireland Renewables Industry Group (NIRIG).</p> <p>DfE officials participate in the BIC Energy Sector Working Group which seeks to encourage an approach to energy resources across the British Isles and, facilitates the exchange of information and sharing of best practice between the member administrations; encourages the cost-effective exploitation of the renewable energy resources available; promotes leadership in low carbon energy; increases integration of markets; and improves security of supply and affordability for consumers.</p>
<p><b>Participate fully in the DOE led Inter Departmental Marine Co-ordination Group (IMCG) to ensure that DETI’s offshore energy interests are effectively represented within the development of new marine environment policy and</b></p>	<p><b>Ongoing.</b> DfE has continued to participate fully in the DAERA-led IMCG meetings/ activities and contribute to consideration of the Marine Strategy Framework Directive, the ongoing development of the NI Marine Plan, the establishment of Marine Protected Areas/Marine Conservation Zones in NI waters and, NI responses to correspondence and research on wider marine-related issues e.g. the ban on micro-beads in cosmetics.</p>

Actions	Action / Status
legislation.	
<p><b>With the Northern Ireland Environment Agency, develop during 2012-2013 streamlined administrative guidance for developers and officials on the licensing and consenting regimes for offshore renewable energy projects.</b></p>	<p><b>Complete.</b> A Memorandum of Understanding (MOU) between DETI and DOE was signed in June 2013 and project specific steering groups established for the ongoing offshore projects. A work programme was agreed to timetable key actions and regulatory requirements and also a delivery plan to achieve streamlined administrative aspects of the projects e.g. joint consultation and advertising to avoid duplication.</p> <p>The two tidal projects have almost completed survey/ research work as part of the EIA process and the companies have been working with stakeholders throughout. A marine licence and consent to construct and operate a generating station have been issued to Tidal Ventures (by DAERA and DfE respectively) for a 100 MW tidal project at Torr Head. Fair Head Tidal has submitted an application for a marine licence for a 100 MW tidal scheme at Fair Head, Ballycastle and this is currently under consideration. The Swedish company, Minesto, has completed the trials under licence of its Sea Kite tidal device in Strangford Lough.</p> <p>In light of the revocation of the Offshore Electricity (Environmental Impact Assessment) Regulations (Northern Ireland) 2008 and the May 2016 re-organisation of NI Departments, the MOU now needs to be reviewed and updated as a matter of urgency. This is currently ongoing.</p>
<p><b>Establish through legislation, the necessary offshore energy production and decommissioning regime, similar to that in force in GB waters, for offshore renewable energy installations in NI waters.</b></p>	<p><b>Ongoing.</b> The policy consultation is complete. The introduction of an Offshore Renewable Energy Bill will be a matter for the Executive to consider once it has been appointed.</p>
<p><b>Continue to support the generation of electricity from offshore and marine renewables through appropriate incentivisation mechanisms.</b></p>	<p><b>Ongoing.</b> DfE has continued to work with BEIS and other Devolved Administration colleagues on the development and implementation of UK-wide Electricity Market Reform (EMR). At the end of March 2015, DETI issued a Strategic Issues Paper on the implications of extending the implementation of Contracts for Difference to NI. Decisions have not yet been taken and will be a matter for the Executive to consider as soon as practicable following the re-appointment</p>

Actions	Action / Status
	of the Executive.
<p><b>Ensure that Northern Ireland benefits from the range of NI and UK wide regimes and groups supporting research, development and deployment of offshore renewable energy.</b></p>	<p><b>Ongoing.</b> DfE is seeking to re-invigorate its membership of and contribution to a number of UK wide groups related to the development and deployment of offshore renewable energy including the Offshore Wind Industry Council, which is currently going through a period of review. It also continues to receive information from and contribute to policy papers from groups such as ORJIP.</p> <p>In its lead environmental regulatory role, DAERA participates with counterparts in Marine Scotland and the Marine Management Organisation<sup>13</sup> in the Offshore Renewable Energy Licensing Group<sup>14</sup> to consider best practice/ consistent standards / shared research with regard to licensing and consenting offshore renewable projects across the UK. It also dials in and contributes to a number of offshore renewable groups such as ORJIP, OSCCA and Marine Industries Working Group.</p>
<p><b>Produce an annual report on progress on ORESAP actions.</b></p>	<p>This is the progress report from 1 April 2016 to 31 March 2018.</p>

<sup>13</sup> The Marine Management Organisation licenses, regulates and plans marine activities in the seas around England so that they are carried out in a sustainable way.

<sup>14</sup> The Offshore Renewables Energy Licensing Group (ORELG) was established in 2010 to address the strategic regulatory challenges associated with the consenting of offshore renewable energy projects. Membership is drawn from government organisations, industry and non-governmental bodies.