

## **New research highlights up to €82,000 million of opportunities in the wave, tidal and offshore wind energy supply chain.**

**February 1<sup>st</sup>, 2018**

Tackling corrosion issues and developing new materials in the wave, tidal and offshore wind sectors across Europe could save up to €84,000 million for developers and create up to €82,000 million of supply chain opportunities by 2050, according to two new reports published today.

Commissioned by the NeSSIE project, the reports investigated the economic potential of anti-corrosion solutions and the development of new materials in the offshore renewables market.

Corrosion is an important concern for offshore energy developers. All marine structures face corrosion problems impacting on the operations and maintenance (O&M) costs along the global lifecycle. In the case of offshore wind farms, the O&M costs are typically around 15 – 30 per cent of the total lifecycle, with corrosion issues a significant factor in these costs.

The reports found that based on offshore renewable deployment estimations, anti-corrosion solutions and new materials could see potential developers saving over €16,000 million for wave and tidal energy projects in the EU by 2050 and potentially over €68,000 million of savings for offshore wind projects. For the anti-corrosion supply chain, the wave and tidal energy markets could potentially lead to over €25,000 million of projects in the wider EU by 2050 and over €57,000 million for offshore wind projects.

**Jan Reid**, team leader in the energy and clean technologies team within **Scottish Enterprise**, said: “This early work is really encouraging. We can see there is a tremendous economic prize for the EU offshore supply chain in tackling this challenge and supporting the EU to decarbonise the energy sector. The key to unlocking this opportunity is developing investable demonstration projects that will prove the technological solutions. Working together with Stakeholders, we at NeSSIE are excited to be involved in the development of anti-corrosion solution demonstration projects.”

**Stefano Valentini**, **NeSSIE ASTER Project Manager**, who led on the state of the art study commented: “It’s clear from this early work, that there are a wide range of technical solutions that can be deployed to great effect in the offshore renewables sector. The EU supply chain is at the forefront of subsea excellence and we are confident this will bring forth excellent solutions that will see the cost of energy coming down in offshore renewables.”

**Henry Jeffrey of University of Edinburgh**, who led on the economic report observed: “The Policy and Innovation Group at the University of Edinburgh has been working in this sector for many years and has developed a range of models for assessing the economic potential for offshore renewables. This type of information is critical to get the wider value chain engaged



and this report presents a significant opportunity for the EU's world class subsea value chain to develop products and services leading to high value job creation."

The reports contribute to NeSSIE's overall objective of developing three investable demonstration projects in offshore renewables focused on corrosion and materials. The projects will utilise the existing EU subsea supply chain and their knowledge to develop commercial solutions.

Commenting on today's announcement, Scottish Government Minister for Business, Energy and Innovation, Paul Wheelhouse added: "Scotland leads the way in renewables, with the equivalent of 54% of our electricity consumption generated from renewable sources in 2016. The renewable energy sector currently supports around 26,000 jobs with a turnover of €6,000 million, however there is still considerable potential for expansion within the sector and I'm determined new technologies, developed in Scotland or in partnership with others, will play a central part in delivering this.

"We recently published Scotland's Energy Strategy, and this sets out our ambition to build a modern, clean, integrated energy system, with renewables at its heart. By collaborating with our European partners we are demonstrating the wealth of experience, expertise and natural assets Scotland has to offer, laying the groundwork for the continued growth of the offshore renewables sector."

#### Notes to editor:

Both reports are available online - <http://www.nessieproject.com>

- **State of the art study on materials and solutions against corrosion in offshore structures** This report maps the current research and standards in corrosion solutions and materials in the offshore sector.
- **Assessment of the Economic Opportunity Report** – This report assessed the market opportunity relating to corrosion solutions and new materials in the sector out to 2050. By assessing the savings in other offshore sectors in relation to corrosion and materials, future market projections and the current breakdown of costs in offshore renewables, this report put together a model that assessed the savings that could be made in the industry and subsequent value chain opportunities by adopting corrosion solutions and strategies currently

#### About the NeSSIE project

The NeSSIE project's main objective is to develop three investable demonstration projects in offshore renewables focused on corrosion and materials. The projects will utilise the existing subsea supply chain and their knowledge to develop commercial solutions. The project will establish strategic public-private cross-sectorial partnerships in the North Sea Basin to



develop and deliver these projects with the ultimate objective to delivering new business opportunities.

This project, co-funded by the EMFF programme of the European Union, started in May 2017 and will finish in April 2019 with the participation of 8 partners from 5 countries:

- Scottish Enterprise - UK
- Basque Energy Cluster - Spain
- ASTER – Società Consortile per Azioni - Italy
- Sirris - Belgium
- Svenskt Marintekniskt Forum - Sweden
- The University of Edinburgh - UK
- Fundación Asturiana de la Energía - Spain
- Lombardy Energy Cleantech Cluster - Italy

The project incorporates an Industry Advisory Group (IAG), which represents the wider supply chain and end users within the offshore sector from the regions of the Vanguard Initiative Energy Pilot. These are mainly focused around the North Sea and include the following organisations:

- Dalarna Science Park - Sweden
- Offshore Energy Cluster - Denmark
- MERINOVA - Finland
- Highlands and Islands Enterprise - UK
- SPRI Group – Spain

**During 2018, the NeSSIE project will move into the next stage of developing a Road Map, an investment plan and running the Demonstration Project Selection process.**

