NORTH OF TYNE COMBINED AUTHORITY

Delegated Decision Report

28th July 2020

Subject: Offshore Wind Supply Chain Innovation Programme
Report of: Principal Strategy & Economy Manager
Decision maker: Paul Hanson, Interim Head of Paid Service
Portfolio: Place and Productivity

Report Summary

The purpose of this report is to request the approval of the Subsea Supply Chain Innovation programme delivered in partnership with the Offshore Renewable Energy Catapult (OREC) to the total value £3,441,650.

Following the approval of the Delegated Decision Report - Investment Fund Update, Part B - Energy, Green Growth and Climate Change – a North of Tyne Blueprint on the 1st of April under standing delegation HPS11 in Part 2.9 of the Constitution, the Interim Head of Paid Service, in consultation with Investment Panel and Portfolio Holder, can approve the relevant call documentation and business case applications for the Offshore Wind Infrastructure and Innovation Programmes.

Recommendations

The Interim Head of Paid Service is asked to

i. Approve funding of £3,441,650 to the Offshore Renewable Energy Catapult for the Offshore Wind Supply Chain Programme subject to the conditions highlighted in paragraph 1.12.

1. **Background Information, Proposals and Timetable for Implementation**

Proposal Name	Offshore Supply Chain Innovation
Lead Organisation	Offshore Renewable Energy Catapult
Delivery Areas	North of Tyne only for technology innovation element North East for business support element
Timescales	July 2020 – March 2023
Project Value	£6,141,650
Grant / Loan amount requested	£3,441,650 (56%)
NTCA Budget Implications:	This forms part of the £12m Offshore & Subsea Programme So far £1.6m has been approved for the North Bank of the Tyne leaving £10.4m for the infrastructure call, the innovation programme and relevant programme costs.

Background

1.1 Energy is a major sectoral strength of the North of Tyne Combined Authority (NTCA), with the existing offshore energy, subsea & marine technologies supporting many jobs in the North of Tyne area. The majority of these companies are located in an 'arc' stretching from Newcastle along the Tyne and up the coast to Blyth and are part of a strong North East wide cluster. The strength of this cluster has been built on nationally significant quayside and port infrastructure, complemented by a deep skills base together with increasingly strong R&D and innovation capabilities.

1.2 Considering the current capabilities and competitive advantages of the North East's offshore wind industry, the Offshore Wind Sector Deal offers a major opportunity for the region, with the North East also recognised as a key region for delivery of the Deal's national ambitions. NTCA and the North East LEP recently commissioned a North East offshore wind supply chain study by Cambridge Econometrics which identified 130 companies currently active in the sector (80 of which are located in the North of Tyne) and estimated that 2000 to 3250 additional direct jobs could be created in the North East, with similar numbers in the associated supply chain. Although there will be competition for this jobs growth, with the right investment, their view was that the cluster will be able to deliver the upper end of this range of additional jobs and support the increase of UK content in the offshore wind supply chain.

1.3 NTCA Cabinet have approved a headline investment fund allocation of £25 million up to 2028 for Offshore and Subsea programme focusing on infrastructure and innovation, approving the initial £12m till 2022/23, with the remaining of the allocation to be confirmed following a review in 2022/23. This programme will unlock the potential for accelerated growth in our clean energy sector – building on already world-class assets in offshore wind, subsea technology and the associated supply chain.

Offshore Renewable Energy Catapult

1.4 OREC is a national facility engaged in technology innovation and research centre for offshore renewable energy. The Catapult is able to leverage its facilities, expertise and contacts to work in close partnership with offshore wind project owners and developers, as well as large industrial suppliers to trial new products and processes within its test facilities. OREC can introduce new suppliers and research activity into development / trial programmes to accelerate innovation and ensure that the UK extends its technology base in offshore renewables. OREC have a national remit and engage with business throughout the UK. This investment will amplify local impact in the North of Tyne and will establish dedicated project team capacity for specific North of Tyne engagement via both (a) the applied research

technical team which can support with North of Tyne project commercialisation and product optimisation and (b) through the business support programme.

Supply Chain Innovation Programme

1.5 The Offshore and Subsea Supply Chain Innovation programme, delivered in partnership with OREC, will accelerate new products and services from the North of Tyne to a huge global market, helping put North of Tyne companies ahead of the curve. The programme will focus on the development of regional companies' ability to address critical barriers to technology deployment in the offshore renewable industry and support them with market entry. The project will also provide technology transfer and supply chain advice to enable SMEs developing new products and processes to incorporate themselves into the emerging offshore renewables supply chain.

1.6 The technology demonstration component of the programme will accelerate new products and services specifically in the North of Tyne area. The major area of activity will be to run an innovation competition (£3m grant fund) which will work with 10 North of Tyne businesses to develop out new products / processes in fields such as next generation turbine subcomponent design; digitisation and application of digital clone technology; next generation predictive maintenance and smart O&M Robotics and AI . The programme will require in-kind industry match funds and the projects will be selected via a competitive EOI process based on industry challenges. Projects are intended to utilise the wider regional supplier base and the ORE Catapult engineering, testing and technology commercialisation capabilities.

1.7 The second part of the programme is a parallel specialist business support programme which supports the technology innovation element (Wind Expert Programme), enables greater existing supply chain development (Fit4Offshore) and provides a technology incubator/mentoring programme to support new SME entry into this sector (Launch Academy). £100k of NTCA funding will support the Launch Academy component with all outputs delivered in the North of Tyne area. This investment then leverages £100k from OWGP (for the Wind Expert Support element) and £100k from the North East LEP (for the Fit4Offshore element), which given the propensity of businesses linked to the offshore sector in the NTCA, the majority of the activity will likely take place in the North of Tyne area.

1.8 OREC will set up a steering committee comprising of key industry end users and stakeholders (including NTCA) whose guidance will provide critical benefits to the businesses who are supported through the programme. This programme is unique in that it specifically engages industrial end users for potential products and services developed. Both Equinor, the developer of Dogger Bank and EDF Energy which already owns and operates major offshore wind farms off the North East coastline have offered support to the programme and will provide a critical route to market for new products and processes, and a route to export opportunities.

1.9 Offshore Supply Chain Innovation Programme – Outputs

Measure	**Number**
No of SME supported	53
New product and services	10
New/improved processes	10
No for jobs safeguarded	10
New jobs created (including new apprenticeships)	10
Number of new businesses supported	3

1.10 OREC has significant experience of managing innovation programmes which lead to longer term job creation, investment and economic growth. It is estimated the baseline job creation targets could be increased 10-fold if even 50% of the new technology demonstration

innovations are taken forward by industry over the next 3 years as these major wind farms are developed.

1.11 An independent appraisal was undertaken which found that the proposal aligns with the objectives of the North of Tyne Combined Authority, the North East LEP, the UK Industrial Strategy and Clean Growth Strategy. The appraisal notes that it is clear that the UK Government target to increase offshore wind generation from 9GW to 40GW represents an opportunity for business. Of the next 19 planned UK offshore wind farms 12 are located in the North Sea and there are further Round 4 wind farms currently under consideration. As a result, the North of Tyne area is well positioned to provide construction, operation and maintenance support into the future. The growth in such a relatively early stage sector means that opportunities for new entrants and disruptive technologies remain. Innovation will be essential if more challenging offshore wind farm locations are to be able to generate power at a competitive rate.

1.12 Investment Panel considered this project on the 14th July and agreed that the Interim Head of Paid Service should approve the funding requested for the technology innovation element of the proposal and approve the funding requested for the business support element of the proposal subject to the following funding conditions

i. NTCA funding is subject to all match funding being confirmed.
ii. OREC to submit an operational delivery plan including the detailed businesses processes for the R&D grant scheme.
iii. At least 50% of the businesses supported through the business support component of the programme funded by the North East LEP and the Offshore Wind Growth Partnership to be located in the North of Tyne area.
iv. Independent state aid opinion to be provided for the entire programme.

2. Potential Impact on Objectives

2.1 The Offshore & Subsea programme directly contributes to NTCA's strategic priorities and is identified as a priority sector in both the NTCA Economic Vision and the Devolution Deal. The proposals in this paper set out the next steps for the innovation component of the programme, which, as set out in the paper agreed by Cabinet in March, is aimed at supporting the wider ecosystem of firms surrounding the core offshore wind supply chain. Coordination of innovation occurring throughout the supply chain is important, to ensure that valuable technologies make it to the marketplace. High-value, bespoke engineering – including in sectors such as sub-sea, robotics and artificial intelligence is expected to play an important future role in applying new technologies to reduce the costs of offshore wind farms including in operations and maintenance – supported by innovations in big data and AI.

2.2 The purpose of this investment is to encourage the development of new SME capacity within the offshore wind supply chain in the NTCA area and to support innovation of new products and services which can ultimately lead to the longer-term generation of new commercial products, a significant uplift in jobs in the supply chain and strengthening of the North of Tyne capability in the offshore wind sector.

3. Key Risks

3.1 Risks associated the funding application have been considered as part of the application and appraisal process. The conditions associated with the funding approval relate to the mitigation of risks.

4. Financial and Other Resources Implications

4.1 The financial implications associated with the funding approval proposed in this Report are:

	2019/20	2020/21	2021/22	2022/23	Total
Offshore Wind Supply Chain Innovation Programme		£465,633	£1,493,783	£1,482,234	£3,441,650
Total		**£465,633**	**£1,493,783**	**£1,482,234**	**£3,441,650**

Resources are available in the NTCA budget to cover the proposed expenditure.

5. Legal Implications

5.1 The Interim Monitoring Officer's comments have been included in this report.

6. Equalities Implications

6.1 OREC has an equality policy which they adhere to.

7. Inclusive Economy Implications

7.1 The programme makes specific reference to the four target groups with the benefits to be accrued through the project:

- Residents who are out of work and in work, low income residents - Several new job opportunities will be created in the broader supply chain due to the innovation programme. Enabling residents to diversify and retrain into a new emerging sector.
- Individuals with low skills - The offshore and subsea sector require a range of both manual work force jobs as well as higher skilled engineering and design jobs. The technology projects will represent core opportunities for people to further develop their skills base. It is clear that if the project is successful that this will be a direct, attributable output from the programme.
- Young people not in employment, education or training - The innovation programme will also encourage businesses which invest in apprenticeships and NVQ schemes – encouraging engagement of new applicants for young people to increase their skills base. It is not clear from the application that businesses investing in apprenticeships and NVQ schemes will be specifically targeted as part of the application process.

8. Climate Change Implications

8.1 All three Local Authorities in the North of Tyne area and the North of Tyne Combined Authority have announced climate emergencies and have signalled the need to develop innovative approaches to decarbonisation. UK Government target to increase offshore wind generation from 9GW to 40GW represents an opportunity for business. Of the next 19 planned UK offshore wind farms 12 are located in the North Sea and there are further Round 4 wind farms currently under consideration. As a result, North of Tyne is well positioned to provide construction, operation and maintenance support into the future. The growth in such a relatively early stage sector means that opportunities for new entrants and disruptive technologies remain. Offshore wind will significantly contribute to meeting the UK carbon budgets and the decarbonisation of global energy supply. Building local supply chains and stimulating supply chain innovation for offshore wind and subsea in North of Tyne will also create green jobs.

9. Consultation and Engagement

9.1 The project has been discussed at Technical Officers Group meeting, Investment Panel, at Officer level in NTCA, and with North East LEP.

10. Appendices

10.1 None

11. Background Papers

11.1 Delegated Decision Report 1st April - Investment Fund Update, Part B - Energy, Green Growth and Climate Change – a North of Tyne Blueprint

12. Contact Officers

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