

02 August 2019

INVITATION TO QUOTE FOR “Next generation of materials for manufacturing of big components in offshore wind energy” Research report

You are invited by Fundación Asturiana de la Energía to quote for the provision of services detailed in this invitation to quote. Your quotation must be received before **23th August 2019** at 12:00. It is the responsibility of all suppliers to ensure that their quotation response is received no later than the appointed time. Fundación Asturiana de la Energía may undertake not to consider quotations received after that time.

Quotations must be submitted via mail to the address C/ Fray Paulino s/n – 33600 Mieres (Asturias) - Spain or via e-mail to the e-mail account faen@faen.es.

Prices quoted shall remain firm for the duration of the contract. Value Added Tax (VAT) should be shown separately.

Evaluation Criteria

All submissions from suppliers will be scored on both price and quality. The contract will be awarded to the supplier who receives the highest total score. The overall Price:Quality split for this tender will be **55%:45%** respectively.

Any mandatory requirements or thresholds identified in the specification must be met before the submission will be evaluated further. You must address each of the evaluation criteria in your submission in order to receive a score.

Please note that submissions will not be considered further if the above requirements are not met.

Price Criteria	Weighting %
This should be the total whole life cost of the product or service	Enter weighting %
Total	55%

Quality Criteria	Weighting %
Previous relevant experience. Relevant skills and qualifications of proposed team	10 %
Methodology and approach proposed	30 %
Delivery / Timescales proposed	5 %
Total	45%

Specification

About ADMA Energy

Led by Scotland and the Basque Country, the Vanguard Initiative pilot project in Advanced Manufacturing for Energy-Related Applications in Harsh Environments (ADMA Energy) brings together ten European regions (Scotland, the Basque Country, Navarre, Lombardy, Norte, Flanders, Asturias, Dalarna, Scania and Emilia-Romagna) whose work together is based on complimentary smart specialisation priorities, and whose aim it is for Europe to be the global leader in the manufacture of

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robust, high-integrity components and systems for marine renewable and offshore energy applications. The pilot, launched in June 2014, aims to create new business opportunities and increased growth for the sector; helping larger companies strengthen supply chains by working with innovative SMEs across Europe.

About Fundación Asturiana de la Energía

Fundación Asturiana de la Energía is the regional energy agency of Asturias and aims to improve the sustainability of the regional energy market and promoting the industrial activity in the energy sector. Our role is to help identify and exploit the best opportunities for harnessing the regional energy resources, to facilitate the technological development in energy saving and renewable energies technologies, to promote the regional cooperation in the energy market and to increase the awareness of the general public related to the sustainability of the energy.

Introduction and Background

Based on a road-mapping exercise undertaken between partners in 2016, the ADMA Energy partners identified several industrial challenges and technology opportunities commonly faced by companies in their regions:

- Corrosion
- Manufacturing and handling large-scale components
- Sensing, instrumentation and remote monitoring
- Reducing the operational and maintenance costs of offshore energy

In 2019 ADMA Energy partners undertook a revision exercise in order ascertain the ongoing relevance of the challenges and opportunities identified in 2016, and identified five further areas of interest:

- Power transfer in sea
- Anchoring and Mooring
- Joining of large components in harsh environments
- Decommissioning
- New materials and manufacturing methods

The decrease in the ratio €/kwh that is being achieved in the offshore wind technology could be improved with a optimization of the manufacturing process through a use of new materials and the improvement of the manufacturing methods. The use of new materials and their associated manufacturing process could reduce the weight of components, improve their reliability and make more resistant to the different loads and degradations that they are exposed in the offshore harsh environments. In this way, this implementation of new manufacturing methods and materials could mean a reduction of costs not only in the manufacturing phase but also in the logistic, installation and maintenance phases

On behalf of the ADMA Energy Pilot, Fundación Asturiana de la Energía is looking assess the state of the art to identify key issues and potential solutions (especially in manufacturing), existing projects, lessons learned and potential for future collaborations on research and demonstration projects related to the next generation of materials for manufacturing of big components of offshore wind turbines.

Objectives

Undertake desk-based research on all available reports and projects under the definition of next generation of materials and their manufacturing methods of big components of offshore wind turbines.

a. Scope of Services

- Provide a summary of state of art of next generation of materials and their manufacturing methods of big components in offshore wind, key findings and challenges (manufacturing process, operation and maintenance,...).
- Highlight key activities and initiatives happening in the challenge area

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- Consult with ADMA partners regarding areas of greatest interest and match with their regions strengths and opportunities
- Provide recommendations and conclusions for further action (demonstration cases) based on available demonstration areas linked to ADMA regions strengths and priorities.
- Assess and illustrate potential funding (including any longer-term investment) opportunities and opportunities for international linkages within wider ADMA Energy partnership for developing the demonstration case. The report should assess and identify (where appropriate) relevant financing opportunities:
 - At the regional level (including whether regional funding schemes allow for international collaboration or not), including European Structural and Investment Funds)
 - At the national level (including whether national funding schemes allow for international collaboration)
 - At the regional level (for example at the level of sea-basin or ‘macro-region’, through INTERREG funding streams)
 - At the wider EU level, including calls within programmes such as Horizon 2020.
- Assess the project’s strategic fit with strategies and policies at the regional, national, EU and international level with regards to the Blue Economy and related technology areas (including the future strategic direction of EU funding availability)

b. Outputs and Milestones

- | | |
|---|-------------------------------|
| • contract awarded | w/c 2 nd September |
| • Kick off Meeting | w/c 2 nd September |
| • Draft report presentation | 15 th October |
| • Revision and feedback | 22 nd October |
| • Final Report (in both PDF and Word formats) | 11 th November |

Contract is expected to commence on 02/09/19 and complete on 15/11/2019

c. Fees and Costs

Rates and prices shall be deemed inclusive of all additional expenses howsoever incurred. Please complete the pricing schedule below.

It is envisaged that the budget for this piece of work will be at a maximum of €12.500 **excluding VAT**.

Contract Management

Please include email address and phone number in ITQ documents as well as identified lead contact

Additional information

Pricing Schedule

Those quoting are required to complete the following proforma showing all of the costs associated with their quote. Any additional costs will not be considered.		
Pricing Element (A day rate is based on a 7 hour working day.)	Total No. hours/ element	Price (excl VAT)
Consultation	Hrs – Day Rate - Cost -	
Finalise report	Hrs - Day Rate - Cost -	
Any additional costs (e.g. meetings, travel and subsistence– provide a detailed breakdown below)	Cost	
Sub Total		€
	VAT	€
Total		€

Prior to any press release or publicity concerning this contract, agreement must be obtained from Fundación Asturiana de la Energía in writing.