

ENQEIR888: Market Consultation - Offshore Operations and Maintenance

Information Memorandum

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Notice:

This Information Document relates to the market consultation for the procurement of operations and maintenance services associated with EirGrid's offshore wind grid infrastructure to be developed as part of the Phase 1, Phase 2 and future Phase projects off the coast of Ireland.

It presents a perspective of what EirGrid have currently identified as the key components of the operations and maintenance services for the offshore grid infrastructure associated with typical offshore wind farms.

EirGrid wishes to receive feedback from interested parties for the purpose of understanding market trends, supply chain maturity and preparing its contracting strategy, project schedule and subsequent procurement. The market consultation may contain an opportunity for meetings with EirGrid representatives.

Suppliers are invited to express their interest by responding to our Questionnaire.

Any information received as part of this market consultation may be shared with EirGrid's Supply chain partners who are engaged in assisting EirGrid with this market consultation.

Participants are advised that this Market Consultation document does not purport to contain all information relevant to the operations and maintenance services associated with EirGrid's offshore wind grid infrastructure off the coast of Ireland and is merely a market sounding exercise. It is emphasised that this is not a call for competition and therefore no tender documents are available. The market consultation does not form part of a formal procurement process. Participation in the market consultation process does not in any way serve to prequalify participants for any future tender process.

Following this market consultation, EirGrid may publish a call for competitive tender at the appropriate time. Any future competitions may be subject to advertisement via the official journal of the European Union (OJEU) and other platform(s) as appropriate, including Achilles (www.achilles.com), Achilles Supply-line).

Any expenditure, work or effort undertaken by organisations or service providers is a matter borne solely by each supplier, and costs will not be reimbursed. Interested parties will not be prejudiced by any failure to register nor participation in future market consultations. EirGrid will not pay any compensation or fees for registration and attending at any meetings or engagements.

EirGrid, their respective directors and their professional advisers do not accept, individually or collectively, any responsibility or liability (1) in respect of the accuracy, adequacy, or completeness of the contents of the Information Memorandum document and (2) for any opinion, statement or conclusion contained in the Information Memorandum document. Nor do they make any representation or warranty in respect of any such opinion, statement, or warranty.

Participants must, when providing the information, clearly identify any specific information they consider to be confidential and the reasons why they believe the information is confidential. It is not sufficient for a Participant to include a statement that all its information is confidential.

1. Shaping our Offshore Energy future

The Government of Ireland target at least 5 GW of grid connected offshore wind to be delivered by 2030 and Ireland's offshore wind targets will increase to 20 GW by 2040 and at least 37 GW by 2050.

All offshore grid infrastructure delivered as part of achieving the target of 5 GW by 2030 will be operated and maintained by EirGrid. This new infrastructure will bring the power generated by offshore windfarms into our national electricity grid.

Developing the offshore electricity grid is key to harnessing Ireland's offshore wind energy potential and providing greater security of electricity supply from a clean renewable source.

Further information on the programme can be found at:

<https://www.eirgridgroup.com/the-grid/offshore/>

2. Who are EirGrid?

EirGrid develops, manages, and operates Ireland's electricity grid. We are responsible for the safe, secure, and reliable transmission of Ireland's electricity. Our job is to bring power from where it is generated to where it is needed throughout Ireland, onshore and offshore.

EirGrid is also leading the secure transition of the electricity grid to a sustainable low-carbon future. Strong electricity grid infrastructure supports the development of our society and economy. But just as importantly, work carried out now to improve the grid will help to create a more sustainable energy future.

While EirGrid is not responsible for generating electricity or building windfarms, we are responsible for connecting electricity generation infrastructure, such as offshore and onshore windfarms, into our national electricity grid. EirGrid has also been designated as the system operator and asset owner of Ireland's Offshore electricity transmission system.

3. Market Consultation

3.1 Objective

EirGrid are currently developing the procurement and contracting strategy relevant to delivering the targets set in *Shaping Our Offshore Energy Future* and the development of the Phase 2 South Coast Offshore Transmission Project and, in conjunction with this, are keen to seek your views and opinions to inform and shape our strategy with regard to how the operations and maintenance of the offshore grid infrastructure could be delivered. We understand that there will be a number of other offshore wind projects coming online in Europe coincidentally with the Phase 1 and Phase 2 projects in Ireland, and we would like to develop a procurement and contracting strategy through engagement with the market and its supply chain.

3.2 Step by Step

1. Review this Information Memorandum.
2. Respond to the questionnaire attached before deadline 01st July 2024.
3. A further detailed questionnaire may be issued, and/or prospective suppliers who submit the completed questionnaire may be invited to a 1-to-1 meeting with EirGrid and its Supply chain partners in June/July/August 2024.

4. Scope of Work

EirGrid is interested in supplier capabilities relevant to the provision of Operations and Maintenance services required for the offshore Operations and Maintenance of the offshore grid infrastructure to be delivered initially as part of the projects that have been successful in the Phase 1 development round and then as part of the Phase 2 South Coast Offshore Transmission Project.

The questionnaire is also intended for the various Operations and Maintenance services that EirGrid may require for any future Offshore Transmission Projects.

It is envisaged that the Offshore Transmission infrastructure shall include high-voltage offshore sub-station platforms, submarine and underground transmission cables, onshore power compensation compounds, and associated communications and monitoring infrastructure”.

Health and Safety, and Sustainability will be key considerations throughout each step of this process. The Operations and Maintenance services include but are not limited to the following indicative and preliminary list of 12 elements.

1. Inspection & Maintenance Support (excluding submarine cables)
 - a. Inspection & Maintenance Planning & Programming.
 - b. Spares strategy development and procurement support.
 - c. Provision of authorised persons.
 - d. Plant Maintenance.
 - e. Plant inspection and NDT.
 - f. Access: Rope access & scaffolding, industrial cleaning and fabric maintenance.
 - g. Equipment statutory calibration, inspection, certification, and testing.
 - h. Rigging, mechanical handling and lifting equipment (incl. crane ops).
 - i. Provision of maintenance tools and equipment.
 - j. Fire-fighting and life-saving appliances inspection, testing and certification.
2. Engineering and Repair (excluding submarine cables)
 - a. Civil engineering, civil contracting and excavation support.
 - b. Electrical engineering, electrical equipment repair and replacement.
 - c. Heating ventilation and climate control, engineering, and repair.
 - d. Instrumentation and control, engineering, and repair.
 - e. Telecommunications equipment engineering, repair, and modification.

- f. Metalwork design, fabrication, and repair.
 - g. Mechanical access, excavation, and provision of handling/excavation equipment.
 - h. Traffic management & traffic control.
3. Logistics (Marine logistics, Quayside support, Light goods vehicles, Heavy goods vehicles)
- a. Crew transfer vessel (CTV) for personnel and goods transportation.
 - b. Service operations vessels (SOV) for personnel and goods accommodation (offshore).
 - c. Quayside services including vessel servicing, cargo handling, agency support, crew support.
 - d. Light goods vehicles and/or vehicular transportation, fleet vehicle provision and management.
 - e. Heavy goods vehicular transportation: including heavy goods/equipment movement.
4. Warehousing (cable storage & capital spares)
- a. Cable & Cable repair spares storage facilities -Deepwater Port Based.
 - b. Cable storage carousels, cages, drums & cable handling equipment.
 - c. Capital spares storage facilities (for long-lead, bulk and procured spares holding).
 - d. Goods receipt/storage/dispatch and inventory management support.
 - e. Equipment/goods storage racks, and material handling equipment, e.g. forklifts, pallet transport.
5. Subsea Inspection Maintenance and Repair (including Offshore structures, Submarine Cable, Survey vessel & survey equipment provision)
- a. Submarine cable survey services, i.e. vessels, personnel and/or autonomous marine technology.
 - b. Offshore structures underwater survey services i.e. vessels, personnel and/or autonomous marine technology.
 - c. Inshore/inter-tidal zone submarine cable survey services, i.e. vessels, personnel and/or autonomous marine technology.
 - d. Associated equipment supporting the subsea IRM services provision, e.g. launch/recovery systems, ROV's, sidescan sonar, sub bottom profilers, etc.
 - e. Seabed stabilisation and cable protection remedial works support.
 - f. Air diving services.
 - g. Saturation diving services.

- h. Provision of autonomous underwater survey support and/or equipment.
 - i. Marine growth removal support.
6. Asset Health, Security & Operational Monitoring
- a. Asset Management Centre - Design and configuration support.
 - b. SCADA overlay and data integration support.
 - c. Equipment and facilities condition monitoring.
 - d. Meteorological monitoring (Equipment, software & services).
 - e. Marine management software & services.
 - f. Control of work and work management (Permit to Work PTW) services.
 - g. Site physical security monitoring and facilities management.
7. Training and Training Support Services
- a. Global Wind Organisation (GWO) related accredited safety training.
 - b. Helicopter transit training - Heli-winch and Helicopter Underwater Escape Training (HUET).
 - c. Electrical site access training - Safe pass, HV/MV installation access.
 - d. Emergency response and crisis management training support.
 - e. Lifting operations, crane operator training and mechanical handling support.
 - f. HV/MV/LV Electrical and mechanical safety practitioner support.
 - g. Computer based training (CBT) package development and support.
8. Offshore & Marine Support - Campaigns and Interventions (including provision of jack-up support, SOV, OSV, Guard/Standby/Rescue/Recovery vessels)
- a. Jack-up Service Vessel support.
 - b. Service Operations Vessel (SOV) support.
 - c. Submarine cable intervention and repair support (vessels and expertise).
 - d. Guard and standby, rescue & recovery vessel support, including Fast Rescue Craft (FRC).
 - e. Offshore supply vessel (OSV) support
 - f. Accommodation vessel support (if not included above)
 - g. Provision of access gangways, intervention, excavation and handling equipment.

9. Health, Safety & Environmental Support

- a. Occupational health sampling, testing and laboratory services.
- b. Specialist technical safety engineering.
- c. Environmental sampling and monitoring.
- d. Ecological monitoring (marine mammals, flora/fauna, ornithology & land-based species).
- e. Provision of PPE.
- f. Statutory equipment calibration, inspection, certification, and testing.
- g. Weather forecasting.
- h. Metocean monitoring.
- i. Noise, EMF, and radiological monitoring services.

10. Helicopter Intervention Support (personnel winching and light cargo)

- a. Helicopter intervention support- airframes, pilots, winching and hoisting equipment.
- b. Heliport services, e.g., fuelling, ops base, maintenance and service personnel, helicopter transit/induction facility, transit PPE, etc.

11. Unmanned Aerial Vehicle (UAV) Survey and Management

- a. UAV survey support, vehicles, and pilots
- b. UAV survey data collection processing and interfaces
- c. UAV cargo/payload delivery support (if regulations allow)
- d. Image streaming and data management
- e. Equipment Logistics
- f. AL data/image interpretation, review, and innovation

12. IT Solution(s) (preferably delivered in a “Software as a Service, (SaaS) model) including the following:

- a. Asset & Work Management IT system
 - i. Asset Register Management.
 - ii. Preventative Maintenance and Work Instruction Management.
 - iii. Asset Performance Management & Predictive Maintenance.
 - iv. Supplier Integration with Asset Management.

- v. Work Initiation and Requirements.
 - vi. Work Planning and Estimates.
 - vii. Work Order Scheduling and Prioritisation.
 - viii. Work Order Dispatch, Management and Tracking.
 - ix. Work Execution.
 - x. Work Closure.
- b. Health & Safety IT system
- i. Risk Assessment and Emergency Plan Creation & Management.
 - ii. Permits and Control of Work.
 - iii. Permits and Control of Work.
 - iv. Management of Change.
 - v. Safety Observation Management.
 - vi. Incident and Investigation Management/ Action Management.
 - vii. Audit and Inspection Management.
 - viii. Audit and Inspection Management.
 - ix. Action Tracking.
 - x. Environment Impact Assessment.
 - xi. Training, compliance & Induction.
- c. Inventory & Supply Chain Management
- i. Inventory & Warehouse Management
 - ii. Purchase Requisition Management.
 - iii. Parts and Service Receiving.
- d. Mobile Applications and Management/Development Platform
- i. Mobile applications for Asset Management.
 - ii. Mobile applications for Work Management.
 - iii. Mobile applications for Inventory Management.
 - iv. Mobile applications for Health & Safety Management.
 - v. Mobile application platform.

e. System Integrations

- i. Integration Development and Management Layer.
- ii. Asset & Work Management Systems Integration.
- iii. Operations & Remote Monitoring Systems Integration.
- iv. Weather Service Integration.
- v. Marine Co-Ordination & Logistics.

f. Digital Twin

- i. Real-Time Data Integration.
- ii. Predictive Analytics.
- iii. Simulation and Modelling.
- iv. Visualisation Tools.
- v. Integration with BIM.
- vi. Integration with GIS.
- vii. Operational Response.
- viii. Lifecycle Management.
- ix. Maintenance Planning and Management.
- x. Maintenance and Support Performance.

g. Contract Management

- i. System Administration and Configuration.
- ii. Creation of New Contracts.
- iii. Contract Interaction, Negotiation, and Review.
- iv. Contract Performance Measurement Framework.
- v. Contract Delivery and Payment Schedules.
- vi. Contract Review, Approval, and Signature.
- vii. Contract Document Storage.
- viii. Contract Performance Monitoring.
- ix. Contract Performance Reviews.
- x. Contract Update, Extension, and Modification.

- xi. Contract Termination.
- xii. Contract Management Dashboard.
- h. Provision of Managed Services to Support IT Systems
 - i. Level 1 and Level 2 Service Desk Support.
 - ii. Skills in the Supported Solution.
 - iii. User Administration.
 - iv. System Logging.
 - v. Security Monitoring.
 - vi. Capacity Planning.
 - vii. License Management.
 - viii. Vendor Platform Upgrade Planning.
 - ix. Incident Management.
 - x. Compliance and Audit.
 - xi. Performance and Quality Assurance.
 - xii. Reporting and Communication.
 - xiii. Business Continuity and Disaster Recovery.
 - xiv. SLA Management.
 - xv. Financial and Cost Management.
- i. Provision of IT Services for the implementation of the outlined IT systems
 - i. Offshore IT System(s) implementation expertise.
 - ii. Project management services.
 - iii. Data services.
 - iv. Business Process modelling services.
 - v. System configuration, integration, and testing services.
 - vi. Training and Change Management services.
 - vii. Reporting & Analytics services.
 - viii. Cutover and post go live support services.
 - ix. Asset Management implementation expertise.

5. Indicative Procurement Approach

EirGrid have undertaken preliminary research and industry benchmarking to identify the effectiveness of various procurement, packaging and contracting strategies that have been adopted during the operations and maintenance life cycle of other offshore wind projects, internationally.

It is to complement this research that EirGrid wishes to gain insight and feedback from the supply chain participants on the optimal packaging/bundling and contracting approach for the operation and maintenance of future offshore grid infrastructure, from the suppliers' perspective.

The output of the research may be shared with the interested parties who contribute with their response and attend any meetings.

This information is indicative only and provided to assist interested parties in responding to the Market Consultation Questionnaire and prepare for future stages of the market consultation.

It is not intended to represent a conclusive position on the final procurement, packaging or contracting approaches that will be adopted in delivering the offshore transmission system operations and maintenance.