Iarnród Éireann
Irish Rail

Rosslare ORE Hub

EIAR Introductory Chapters

Chapter 3:

Need for the Project

venterra | GDG GAVIN & DOHERTY GEOSOLUTIONS | NICHOLAS O'DWYER an RSK company

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ACP	An Coimisiún Pleanála
CAP25	Climate Action Plan 2025
EIAR	Environmental Impact Assessment Report
GW	Gigawatt(s)
MAP Act	Maritime Area Planning Act (2021
MW	Megawatt(s)
nm	Nautical miles
NMPF	National Marine Planning Framework
O&M	Operations and Maintenance
ORE	Offshore Renewable Energy
ORESS	Offshore Renewable Energy Support Scheme
RoRo	Roll-On, Roll-Off
SC- DMAP	South Coast Designated Maritime Area Plan
DMAP	Designated Maritime Area Plan

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3 NEED FOR THE PROJECT

3.1 INTRODUCTION

The proposed Rosslare ORE Hub is part of Iarnród Eireann's strategic plan for Rosslare Europort. It is designed to support the offshore renewable energy (ORE) sector by enabling efficient handling and storage, marshalling, staging and integration of ORE components for offshore wind farm projects. As outlined in EIAR Chapter 2: Legislation and Policy Context and in the Planning Report submitted with the application for development permission, the proposed ORE Hub aligns with policy frameworks across all governance levels and is critical to meeting Ireland's climate and energy security goals.

There are currently five applications for consent for offshore wind farms in the Irish Sea (Ireland's east coast) targeting for deployment by 2030. Further developments are planned for the Celtic Sea (Ireland's south coast) under the South Coast Designated Maritime Area Plan. The Proposed Development seeks to make an important contribution by facilitating construction of such developments.

Offshore wind farms being progressed in Ireland are proposed in direct response to Ireland's Climate Action Plan 2025 target to have 5GW of offshore wind operational by 2030, with further aims of 20 Gigawatts (GW) of ORE generation by 2040 and 27GW by 2050 set out in the *Future Framework for Offshore Renewable Energy* (Department of Climate, Energy and the Environment, 2024) and in *Powering Prosperity Ireland's Offshore Wind Industrial Strategy* (Department of Enterprise, Trade and Employment, 2024).

In 2021, the Minister for Transport undertook an assessment of the options for Irish State ports to facilitate the ORE sector, and published its *Policy Statement on the facilitation of Offshore Renewable Energy by Commercial Ports in Ireland* (Department of Transport, 2021) wherein it is stated that a multiport approach will be required to address the needs of the ORE industry, to deliver on the ORE targets set out in national policy, and to take advantage of the economic opportunity created by the roll out of fixed and floating offshore wind in Irish waters.

By providing the facility to enable offshore wind development in the Irish Sea and Celtic Sea, the proposed Rosslare ORE Hub will support the achievement of the climate action objectives and will contribute to energy security. The proposed Rosslare ORE Hub is therefore considered urgent and in the public interest.

The Rosslare ORE Hub was granted funding for planning stage activities under Connecting Europe Facility, granted in 2023. This further demonstrates the need for the project.

3.2 OFFSHORE WINDFARM DEVELOPMENT

As discussed in Chapter 2: Legislation and Policy Context, support for offshore renewable energy is set out in the Ireland's Climate Action Plan 2025 (Department of Climate, Energy and the Environment, 2025) with ambitious targets to increase the share of renewable electricity to 80% by 2030. This includes ambitious targets of deploying 9GW of onshore wind, 8GW of solar power, and at least 5GW from offshore wind projects by 2030.

Additional policy measures outlined in the current Programme for Government include the gradual phase-out of fossil fuel-based electricity generation in Ireland to achieve net zero emissions by 2050. The need for offshore wind developments and the associated infrastructure, including ports to facilitate their installation, continues to increase.

3.2.1 PHASE ONE ORE PROJECTS

The first phase of offshore wind development will be in the Irish Sea, off the coasts of Dublin, Meath, Louth and Wicklow. The Phase One ORE Projects (Oriel Wind Farm, North Irish Sea Array, Dublin Array, Codling Wind Park I & II, and Arklow Bank Wind Park 2) (listed in Table 3.1) with a combined capacity of 3,800MW. have been in development for a number of years. Each project was granted its Maritime Area Consent in December 2022 and has submitted development permission applications to An Coimisiún Pleanála (ACP).

Table 3.1: Planned Offshore Wind Projects in the Irish Sea

Project	Generation capacity	Status	Target operation[1]
Oriel Wind Farm[2]	375MW	Planning application submitted and RFI issued by ACP	2028
North Irish Sea Array[3]	500MW	Planning application submitted and RFI issued by ACP	2029
Dublin Array[4]	824MW	Planning application submitted	2030
Codling Wind Park I & II[5]	1300MW	Planning application submitted and RFI issued by ACP	2029
Arklow Bank Wind Park 2[6]	800MW	Planning application submitted and RFI issued by ACP	2030

Three of the Phase One ORE projects were successful in attaining a route to market through the first auction under the Offshore Renewable Electricity Support Scheme, determined in June 2023. The remaining two are seeking an alternative route to market, likely through a corporate Power Purchase Agreement. All of the Phase One ORE Projects are targeted to be operational by 2030.

[1] This is the target year for delivery per the application documents / project website for Phase One ORE Projects.
[2] https://www.orielwindfarm.ie/news/oriel-windfarm-to-lodge-planning-application
[3] https://northirishseaarraysid.ie/ (accessed 7th October 2025).
[4] https://ie.rwe.com/press-and-news/2025-02-26-dublin-array-offshore-wind-farm-to-submit-planning-application/ (accessed 7th October 2025).
[5] https://codlingwindpark.ie/project-delivery/ (accessed 7th October 2025).
[6] https://www.sserenewables.com/offshore-wind/projects/arklow-bank-wind-park/ (accessed 7th October 2025).

3.2.2 The South Coast Designated Maritime Area Plan Projects

The next phase of offshore wind projects to be developed in Irish waters will be within the area off the coast of Waterford and Wexford, within the areas identified under the South Coast Designated Maritime Area Plan for Offshore Renewable Energy (SC-DMAP), Ireland's first spatial plan for offshore renewable energy (Department of Climate, Energy and the Environment, October 2024).

The SC-DMAP has identified four Maritime Areas in the Irish part of the Celtic Sea within which proposed future ORE projects may be located, which in this instance relates to fixed offshore wind technology. The four areas identified under the SC-DMAP as suitable for fixed offshore wind development have a combined capacity of approximately 3,900MW. Refer to Table 3.2.

The first area, known as Tonn Nua or Maritime Area A, with a generation capacity of 900MW, has been identified by the Irish Government for development by the winner of Ireland's second offshore wind auction to be held at the end of 2025. A second area (Li Bann) with a capacity of 1,000MW is expected to be auctioned sometime in 2026, subject to State Aid approval of an extension to the Renewable Electricity Subsidy Support scheme by the European Commission.

Table 3.2: SC-DMAP offshore wind development areas

Area	Generation capacity	Status	Target operation
Tonn Nua	900MW	Competitive auction under Offshore Renewable Electricity Subsidy Scheme scheduled for Q4 2025	2034
Li Bann	c.1000MW	Auction expected in 2026 subject to State Aid Agreement from European Commission	To be confirmed
Manannán	c.1000MW	Auction date to be confirmed	To be confirmed
Danu	c.1000MW	Auction date to be confirmed	To be confirmed

The SC-DMAP includes a suite of policy objectives which will collectively support and guide its implementation. As a statutory plan established under provisions in the Maritime Area Planning (MAP) Act 2021, as amended, the SC-DMAP, together with the National Marine Planning Framework, will inform future decision-making processes and assessments by relevant competent authorities regarding the award of Maritime Area Consents and development permissions. The SC-DMAP was adopted by the Minister for the Environment, Climate and Communications on 24 October 2024.

3.2.3 The National Designated Maritime Area Plan

The Department of Climate, Energy and the Environment has commenced work on a National DMAP. The National DMAP, to be completed by December 2027, intends to designate areas for both fixed and floating wind across Ireland’s maritime area and is expected to designate further areas suitable for fixed offshore wind in the Irish Sea. Areas identified through the National DMAP process will

contribute to Ireland's mid and long-term targets of 20GW of offshore wind by 2040 and 37GW of offshore wind by 2050, with areas suitable for fixed offshore wind likely to be exhausted in the mid-term (i.e., out to 2040). These sites are expected to be auctioned following their designation in the late 2020s and into the 2030s.

3.3 LOCATION OF THE ROSSLARE ORE HUB

Table 3.1 and Table 3.2 together list the known fixed offshore wind development sites in the Irish and Celtic Seas (nine projects in total). The Phase One ORE Projects together with the SC-DMAP and National DMAP increase the expectations of fixed bottom offshore wind developments in the Irish Sea and Celtic Sea, making the proposed Rosslare ORE Hub an ideal installation port for such developments due to its proximity to these sites.

Unlike general port-to-port shipping, port use for offshore wind marshalling and assembly is sensitive to the sailing distance to the offshore windfarm site (ARUP, 2020). The sensitivity is due to the resulting increase in the construction phase costs of offshore wind projects due to time-sensitive offshore installation costs, as well as demanding project milestones associated with public financial support regimes, consenting, and the commercial need to start selling power. The potential cost of delays in installation is typically very high relative to a project's port costs. This difference creates a commercial rationale for the use of local marshalling/assembly ports holding significant buffers of components to isolate the offshore construction programme from transportation and widely geographically distributed upstream supply chains. In the ARUP report, it is recommended that marshalling and assembly ports should ideally be located within 108 nautical miles (nm) (200km) of the offshore windfarm site, which is a 13.5-hour transit time for a ship travelling at a speed of 8 knots. The proximity of a facility to the planned Irish offshore windfarm construction sites is key to minimising sailing distance associated project risks for offshore windfarms.

As can be seen in Figure 3.1, all but one of the offshore wind farm sites in the Irish Sea and Celtic Sea are entirely within 108nm of the Proposed Development (Oriel Wind Farm lies on the 108 nm limit). Therefore, for the offshore sites in the Irish Sea and Celtic Sea, the proposed Rosslare ORE Hub is in a prime location to efficiently and economically service the installation vessels that require to come ashore to pick up components and bring them to the construction sites, and for subsequent Operations and Maintenance (O&M) activities.

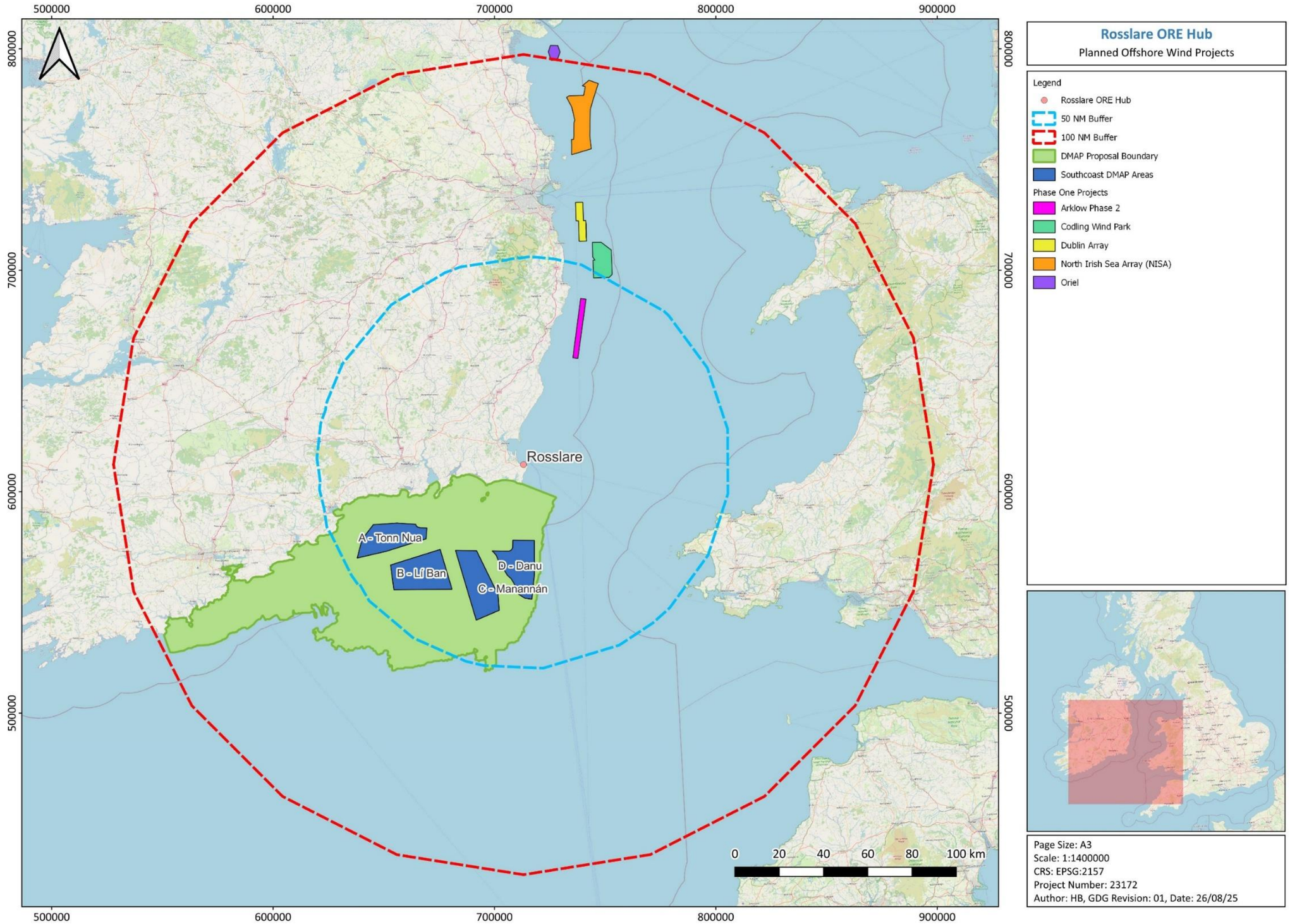

Figure 3.1: Location of Proposed Development in relation to Phase One ORE Projects and SC-DMAP Areas

3.4 CONSULTATION WITH THE ORE INDUSTRY

As outlined in Chapter 5: Consideration of Alternatives and Project Design, IÉ has engaged with the ORE industry to ascertain their needs for offshore wind energy development, to ensure the design would facilitate the sector. This engagement with the ORE industry is also evidence that a facility capable of supporting offshore wind construction at Rosslare Europort is strongly supported.

3.5 MAXIMISING INVESTMENT IN PORT INFRASTRUCTURE

The proposals for the Rosslare ORE Hub facilitate efficient use of port infrastructure well into the future, thereby maximising investment in the facilities. This is achieved by undertaking marine enabling works and installing services for anticipated future uses such as an operations and maintenance (O&M) base for offshore wind farms; by including the use of ORE berths for traditional port activities and concrete surfacing to facilitate Roll-on, Roll-off (RoRo) trailer parking; and by providing improved and safe facilities for existing users at Rosslare Europort at the new Small Boat Harbour and Sea Scouts facility.

By providing facilities that support various uses of infrastructure both currently and in the future, the proposed Rosslare ORE Hub meets the policy imperatives of the National Marine Planning Framework (NMPF) (Department of Climate, Energy and the Environment,2021) regarding maritime economic development and demonstrates alignment with overarching marine planning policies of co-existence. Refer to Chapter 2: Legislation and Policy Context for further information.

3.5.1 PROVIDING FOR A FUTURE ORE OPERATIONS AND MAINTENANCE BASE

The proposed Rosslare ORE Hub will continue to service the offshore wind farm industry beyond construction of the Phase One, SC-DMAP and any National DMAP offshore wind farms. The Proposed Development makes provision for future development of supporting infrastructure to provide the O&M facilities required by the ORE industry for major repairs and replacement of turbine components.

3.5.2 SUPPORTING TRADITIONAL PORT ACTIVITIES

Rosslare Europort is of one five ports of national significance which fall under the European Core and Comprehensive Trans-European Transport Network. All five ports of national significance are State owned commercial ports. Rosslare Europort has Tier 2 National Port status. Through the National Ports Policy (2013), the Government has expressed its commitment to *"ensuring that the full commercial and operational potential of Rosslare Europort is achieved"*. Rosslare Europort currently has three RoRo berths with total entrance, queuing, laydown and storage areas of approximately 22ha and maximum combined quay lengths of 940m. The Irish Maritime Development Office shows growth in RoRo freight trade nationally at an average of 1.24% annually over the last 8 years (2017 to 2024), with growth of existing RoRo freight traffic at Rosslare Europort assumed to be at the average rate of 1.24% annually into the medium-term.[7]

[7] Irish Maritime Development Office, Quarterly Industry Statistics, Quarterly Industry Statistics | IMDO Irish Maritime Development Office (accessed 7th October 2025).

While the primary use of the facilities in the Proposed Development will be for ORE, there may be times when the facility is not fully utilised for ORE operations, for example between ORE projects or due to ORE project delays. At such times, the proposed berths at the ORE Hub may be used for traditional port activities. The Proposed Development therefore includes provision of overflow trailer parking for RoRo cargo operations at Rosslare Europort to accommodate this potential occasional use, sufficient to cover a projected increase in RoRo trade out to 2040.

3.5.3 PROVISION OF A NEW SMALL BOAT HARBOUR AND SLIPWAY FOR THE SEA SCOUTS

The development of the Rosslare ORE Hub includes capital dredging to achieve navigable depths for vessels delivering ORE components; land reclamation to create a storage area for these components; and construction of two new berths to facilitate installation vessels for offshore wind. The land reclamation works include the infilling of the existing small boat harbour, which will be incorporated into the Rosslare ORE Hub at a new location in deeper water, and installation of a new slipway and facility for the Sea Scouts.

The new Small Boat Harbour will be in water depths of between -4 m CD and -5 m CD and will provide 64 No. berths of varying sizes for users of the existing small boat harbour as well as a new quay for existing users of Fisherman's Quay together with parking and storage for gear. The new Small Boat Harbour will be securely separated from the ORE Hub, providing safe access to the facility and the sea for its users and will be accessible at all tidal stages.

A new slipway for the local Sea Scouts, together with parking and a storage shed, will be installed between the Rosslare ORE Hub and the western shore, providing safe access to the sea away from the operations of Rosslare Europort.

The provision of these facilities has been designed in consultation with the various user groups and the local community (refer to Chapter 4: Project Scoping and Consultation) and will provide socio-economic benefits to the local community and the groups that will use the new facilities.

3.6 CONCLUSION

The primary purpose of the Proposed Development is to provide a facility for the efficient handling and storage, marshalling, staging and integration of ORE components to facilitate installation of offshore wind energy projects by ORE developers and operators. ORE is necessary for Ireland to achieve renewable electricity and decarbonisation targets, drive Ireland's response to the global climate emergency, and contribute to the security of energy supply for Ireland and Europe.

There are live and proposed future planning applications for offshore wind farm developments in the Irish Sea and Celtic Sea which could be constructed and supported from Rosslare Europort. Consultation with the ORE industry, which was undertaken early in the design process, has resulted in a project which is fit for purpose and can be ready for use in sufficient time to support construction and for future O&M of offshore wind farms in the Irish Sea and Celtic Sea.

Due to its prime location in relation to the offshore wind farm projects currently in the pipeline and planned for the future, the Rosslare ORE Hub can serve as the primary port in Ireland for storage, marshalling, staging and integration of ORE components, and is perfectly placed to support an entire offshore renewable energy project from construction through to operation and maintenance.

The need for the project is primarily driven by the requirement to service the ORE industry in the Irish Sea and Celtic Sea. By providing facilities that support various uses of infrastructure both currently and in the future (i.e., provisioning for further O&M, RoRo trailer parking, and new Small Boat Harbour and slipway and facilities for the local Sea Scouts) the proposed Rosslare ORE Hub fulfils *National Marine Planning Framework* (Department of Climate, Energy and the Environment, 2021) requirements for maritime economic development and aligns with overarching marine planning policies on co-existence and sustainable infrastructure.

3.7 REFERENCES

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