



***FINAL TERMS OF REFERENCE***  
FOR THE PREPARATION OF AN  
***ENVIRONMENTAL IMPACT ASSESSMENT***

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*July 2022*

- Note 1:** The Environment and Resources Authority (ERA) reserves the right to modify these Terms of Reference according to any relevant environmental and planning considerations that may emerge at any relevant stage of the EIA or the permit application process, as well as in the event of any changes or updates to the proposed development. ERA also reserves the right to request additional or amended studies should the findings of the EIA be insufficient to adequately inform the decision-making process or if the EIA identifies matters which should be subject to further investigation.
- Note 2:** Unless otherwise agreed with ERA, all requirements set out in these Terms of Reference are to be complied with. If there are any aspects that the consultants deem irrelevant to this study, or if at any stage the consultants discover any environmentally-relevant aspect (not included in these TORs) that needs to be studied, the consultants shall inform ERA immediately, justifying their reasoning.
- Note 3:** Difficulties, including technical difficulties and lack of information, encountered by the consultants in compiling the required information shall be made clear in the EIA. All references to published works and sources of information shall be duly acknowledged in a manner that enables tracing of the information source and verification. No material may be incorporated by reference unless it is reasonably available for inspection by potentially interested persons within the consultation period and thereafter, and for record-keeping and unhindered perusal by ERA. Any material which is based on unavailable proprietary data shall not be incorporated by reference.
- Note 4:** Any requirement for confidentiality of any section or detail of the EIA must be strongly justified and a formal request in this regard must be submitted to ERA. Should ERA grant confidentiality, alternative material that is still adequate for proper assessment, public consultation and decision-making must be provided.
- Note 5:** Agreement on method statements, and ancillary liaison with ERA, is not mandatory but is recommended. Nevertheless, ERA reserves the right to disagree with the methodology proposed, including proposed areas of influence, and with the EIA submissions in general, and to factor such disagreement in its critique of the EIA.
- Note 6:** During review of the EIA, ERA will submit comments for the consultants' consideration, as relevant. Following the consultants' response to ERA satisfaction, a revised second draft of the EIA, addressing the comments, will normally be required. This may take the form of a complete resubmission or of an Addendum detailing the revisions to the previous submissions, as deemed most expedient by ERA, taking into account continuity and traceability of the information, and overall user-friendliness vis-à-vis subsequent review, presentation, public consultation, record-keeping and decision-making. A complete resubmission will generally be required if changes are numerous or complex, whereas an Addendum may be preferred if changes are more limited.
- Note 7:** The consultants are not exonerated from obtaining any formal authorisation from ERA, and from other relevant entities, vis-à-vis any activity ancillary to the EIA (e.g. collection, sampling, capture, or waiver of access restrictions) wherever such authorisation is legally required.
- Note 8:** These Terms of Reference, and all ancillary correspondence, are issued without prejudice to ERA's position on the project. Accordingly, their issuing (even when customised to address specific project details) should not be construed as evidence in favour or against the project or any component thereof, unless the contrary is clearly stated.
- Note 9:** Wherever relevant, references to land also include the sea, and ancillary terms such as land-take, ground cover, landscape, vehicles, access roads, etc. should be interpreted accordingly.
- Note 10:** Wherever any baseline studies required by these Terms of Reference is covered by already-existing data, such data should be used in preference to unnecessary duplication of baseline studies, unless the consultants or ERA or both are of the opinion that the existing data is unavailable, incorrect, outdated, unreliable, insufficient, or otherwise inadequate for the purpose of the EIA.

An Environmental Impact Assessment (EIA) Report is to be prepared as required by the Schedule I, Category II, Section 13.0.2.1 of the Environmental Impact Assessment Regulations (S.L. 549.46). Moreover, the proposed development also qualifies for EIA under Regulation 10 (3). The required components of the EIA are:

- i. A **Coordinated Assessment Report**, in conformity with the following Sections of these Terms of Reference. This report should assess the project in its totality;  
*[Note: The coordinated assessment should seek to analyse and integrate the main considerations emerging from the technical reports, rather than just reproducing excerpts from the reports.]*
- ii. A separate **Appendix (or Appendices)** containing all technical studies and original survey reports as prepared by the individual specialist consultants for specific topics;  
*[Note: Experts contributing to the EIA should be specifically asked to consider impact interactions and cross-cutting issues, and to communicate information between each other accordingly].*
- iii. A separate **Non-Technical Summary** of the EIA, in both the Maltese and English languages. This should have enough details for the public to understand the project and the related environmental considerations, and should be written in reader-friendly language (e.g. avoiding unnecessary technical jargon);
- iv. A **declaration of conformity** with regards to conflict of interest, in accordance with sub-regulations 17(3) of the EIA Regulations (refer to Appendix 1 to these Terms of Reference); and
- v. An addendum detailing the **feedback received from stakeholders, from the public, and from ERA** during the relevant consultation stages of the EIA, and how they were addressed.

Wherever relevant and appropriate, all components of the EIA should include tables and figures (e.g. maps, plans, photographs, photomontages, charts, graphs, diagrams, cross-sections) and quantifications.

The complete EIA Report (including all the above components) should be submitted as a printable digital copy (in .pdf format, with copying fully enabled throughout) and as a printed copy. Likewise, in case further revisions are to be made to the EIA Report, both a printable digital copy (in .pdf format, with copying enabled throughout) and a printed copy of the revised EIA Report, or an Addendum, is to be submitted to ERA.

Any other assessments, including Appropriate Assessment [as required by the Flora, Fauna and Natural Habitats Regulations (S.L. 549.44)] are to be submitted separately from the EIA. Cross-referencing between the EIA and any such assessment should be clear and reasonably limited, such that both of the following considerations are duly satisfied:

1. Alerting the reader to the fact that the aspect in question is also being addressed in another parallel assessment; and
2. Enabling the reader to easily follow both the EIA and the other assessments as stand-alone documents.

Any other technical studies/ reports which are of direct environmental relevance to the project or are cross-referred to in the EIA report, should be submitted together with the EIA, and made available to the public. Should these documents not be made available upon submission of the EIA report, ERA reserves the right to re-open the public consultation for an additional 30-days, over and above the timeframe stipulated in Regulation 19(1), as deemed fit.

More detailed specifications are identified in the following pages.

## **1.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT AND ITS CONTEXT**

The description of the proposal is to include the aspects outlined below, and should take into account the entire proposal and any ancillary facilities and infrastructure connected with, or arising due to, the project.

### **1.1 Justification for the Proposal**

#### **1.1.1 Objectives**

The purpose and objectives of the development and whether these are related to current legal obligations, policies or plans.

#### **1.1.2 Demand**

The current and expected requirement or demand for the proposed land uses, also explaining how the proposal will address the requirement/demand.

### **1.2 Description of the Physical Characteristics of the Whole Project and the Land Use Requirements during the Construction, Operational and Decommissioning Phases**

The following aspects should be addressed for all phases of the project, clearly distinguishing between aspects relating to construction phase, operational phase, decommissioning phase, or more than one phase. References to the construction phase and decommissioning phase also include ancillary site preparation, clearing, excavation, demolition/dismantling, and site reinstatement works, as relevant. Reference to previous approved application/s in the area, particularly those associated with the first electrical interconnector, should be made accordingly.

#### **1.2.1 General characteristics**

Description of the proposed development including size, area, height, volume, configuration/layout, general design, location and proposed elevations of buildings/structures/installations, hard and soft landscaping, access arrangements, boundary demarcation arrangements, land use requirements, and land take of ancillary facilities (including infrastructure, storage, servicing, security etc.). The description is to be consistent with the details submitted in the relevant permit applications, throughout both the EIA process and the development permission application process.

#### **1.2.2 Construction, Operational and production processes**

The relevant construction, operational and production processes and their main characteristics, including:

- The nature and quantity of materials used or generated;
- The source, type, quantity, composition and concentration of residues and emissions including water, air, soil pollution, noise (including impulsive underwater noise), vibration, light, heat, radiation etc. resulting from the proposed project; the parameters to be reported should be in line with relevant EU policy; and
- The expected annual and total emissions, including Greenhouse Gases (GHG), and the contribution to total national GHG emission on an annual basis.

#### **1.2.3 Project management**

An indicative framework outlining the key parameters and site management arrangements during construction, operation and decommissioning phases, including:

- Works methodology, including any mineral processing plants such as batching plants within the construction site;
- Specifications for mooring locations, if any, used during both construction and operation. These should be discussed and recommendations on the favoured option should be made available;
- Expected duration of all phases, as well as season, frequency and duration of interventions;
- Depths and volumes of excavation, and type of material to be excavated; and
- Types and quantities of raw materials and primary resources to be consumed, including water, energy, stone and other resources, and measures to reduce such consumption.

#### 1.2.4 Access, transportation and related infrastructure

1. A forecast of the type, quantity and size of vehicles and vessels envisaged during each phase and their respective frequency of use, as well as an identification of the routes that vehicles will use to/from and within the site. The required arrangements should also be compared with the relevant existing situation (in terms of structural considerations, stability and state of roads, road width and gradient, turning circles and junctions, type of surfacing, and other physical or environmental constraints, etc). Interventions that would need to be carried out to accommodate the required vehicles (e.g. new or altered access roads), and sites/buildings/structures/features likely to be affected as a result, should be identified accordingly.
2. Facilities for the storage, parking, on-site servicing, loading/unloading of equipment, vehicles and other machinery.

#### 1.2.5 Sewerage, runoff management, energy, telecommunications, and ancillary infrastructure

1. Estimates of the energy-related specifications, including:
  - The features and processes of the proposed development and its ancillary facilities which consume energy, including estimates of consumption during operation. The analysis should consider, as relevant, the connected load (in MW or MVA), the overall power factor, the annual MWh split in terms of end-use (lighting, climate cooling/heating/ventilation, plant etc.) which reflects the expected use of the facilities;
  - The energy sources envisaged to meet the projected demand;
  - The facilities and structures to be installed in connection with the above (e.g. energy production, storage, distribution and saving) including estimates of the sizing of cables, buildings and equipment; and
  - The expected energy performance of the proposal, including building orientation, natural ventilation, construction materials, integration of low/zero-carbon technologies to meet energy needs; avoidance of features which increase energy consumption; and energy efficiency measures in the finishing and operation of the development.
2. Infrastructural services and utilities related to water and power supplies, sewerage, telecommunications and runoff management, and ancillary works (e.g. trenches, tunnels, culverts, switching/transformer stations, pump houses, inspection chambers).

#### 1.2.6 Waste management

1. A sufficiently detailed indication of the waste management implications likely to arise from the project, including wastes generated by ancillary facilities and wastes which may arise from accidental spillages and leakages and from repair works. Wastes should be subdivided according to the relevant project phases.
2. The following information is to be provided for each waste stream, as relevant to each phase:
  - Identification of processes or activities that would result in waste generation;
  - European Waste Catalogue Codes for each waste stream, as per relevant legislation;
  - The projected quantities and rate of generation for each type of waste;
  - Information on waste handling and storage, on site as well as off site;
  - The method of transportation and frequency; and
  - The method of characterizing the chemical composition of dredged waste; where applicable.

This information should be presented in table format as follows, and should also include cross-references to the relevant regulations, particularly The Waste Regulations (S.L. 549.63):

Phase	Type of waste	EWC Code	H-Code	Activity (e.g. sanding, scraping, power washing etc.)	Estimated quantities	Final permitted disposal location

3. The envisaged waste management arrangements using the Best Practicable Environmental Options (BPEO) available, and the envisaged efforts to minimise waste generation and to divert waste to reuse or recycling rather than disposal.

4. Layout plans (to scale) clearly showing all relevant waste management infrastructure and related facilities (e.g. bunded areas for storage of waste fuels, wheel-wash facilities, etc.), clearly distinguishing between temporary and permanent structures for each phase.

### 1.2.7 Longer-term developments

Additional future developments, land uses and other commitments that are ancillary or consequent to the project or are likely to arise in relation to the same project or its expansion, as well as longer-term needs of the proposal, including: ancillary infrastructure not accounted for in the previous sections; any consequent interventions/arrangements required to accommodate the development; any foreseeable extensions or updates to the proposal; any displacement of existing uses; and decommissioning.

## 2.0 ASSESSMENT OF ALTERNATIVES

An outline of the main alternatives studied and an indication of the main reasons for this choice, taking into account the relevant environmental effects and their prevention (or optimisation) at source. The following alternatives need to be duly considered, as relevant to the development itself (or to one or more phases thereof) and its requirements and constraints:

- 2.1 Alternative sites
- 2.2 Alternative technologies
- 2.3 Alternative layouts
- 2.4 Downscaling of the project, or elimination of project components
- 2.5 Zero option (do-nothing scenario) - i.e. an assessment of the way the site would develop in the absence of the proposed project.

*[Note: The zero option should be considered in sufficient detail as a plausible scenario in the EIA, wherever relevant, and not discarded upfront without proper discussion of its implications.]*

- 2.6 Hybrids/combinations of the above

The findings of the assessment of alternatives should be summarised in a table format for ease of comparison.

## 3.0 A DESCRIPTION OF THE SITE AND ITS SURROUNDINGS (I.E. ENVIRONMENTAL BASELINE)

The existing environmental features, characteristics and conditions, in and around the proposed development site as well as in all locations likely to be affected by the development or by ancillary interventions and operations, are to be identified and described in sufficient detail, with particular attention to the aspects elaborated further in the next sections.

The consultants should also identify (and justify) wherever relevant:

1. The geographic area (e.g. viewshed or other area of influence) that needs to be covered by each study;
2. The relevant sensitive receptors vis-à-vis the environmental parameter under consideration (e.g. residential communities, other users, natural ecosystems, specific populations of particular species, or individual physical features);
3. The location of the reference points or stations (e.g. viewpoints, monitoring stations, or sampling points (including depth of multiple sampling points at a single sampling point in the case of water media and sediment, where applicable) to be used in the study; and
4. Other methodological parameters of relevance, also noting that the assessment will normally require both desk-top studies and on-site investigations (including visual observations and sampling, as relevant).

*Note: It is recommended that these details are discussed in advance with the ERA prior to commencement of the relevant parts of the studies, in order to pre-empt (as much as possible) later-stage issues.*

Wherever relevant to the environmental aspects under discussion, reference to legislation, policies, plans (including programmes and strategies) standards and targets, should also be made, such that the compatibility (or otherwise) of the proposal therewith is also factored into the assessment required by **Section 4** below. The discussion should cover the following aspects, in the appropriate level of detail:

- Supra-national (e.g. European Union; United Nations; or other international or regional) legislation, directives, policies, conventions, protocols, treaties, charters, plans and obligations;
- National legislation, policies and plans (e.g. Structure Plan; National Environment Policy); and
- Sub-national legislation, policies and plans (e.g. local plans, site-specific regulations, action plans, management plans, and protective designations such as scheduling or Natura 2000).

**Note:** In addition to already in-force legislation, policies and plans, the discussion should also cover any foreseeable future updates (or new legislation, policies and plans) likely to be fulfilled, affected or compromised by the proposed project. Furthermore, it should be noted that some cross-cutting legal/policy instruments (e.g. Water Framework Directive and Marine Strategy Framework Directive) may need to be factored into more than one aspect of the discussion.

### 3.1 Land/Sea Cover and Land/Sea Uses

A description of the land cover and land uses (and/or sea uses, as relevant) within the area of influence of the project, including roads, footpaths and public access routes. Details including nature, magnitude, proximity to site, etc. should be included.

The assessment shall first consider the proposed development in isolation and assess the impacts arising from the proposed development. These include impacts of the proposal on the adjacent sea uses including any existing sensitive receptors/uses with reference to: (i) navigational routes (international and local); (ii) fisheries; (iii) shipping and yachting; (iv) diving and tourism; and, (v) any Marine Conservation Areas, during construction and operation.

### 3.2 Geology, Geomorphology, Hydrogeology, and Soils

A comprehensive investigation of:

1. The geology and geomorphology of the site and its surroundings, including:
  - (i) existing geology, stratigraphy, structure, lithology, physiography and geomorphology features;
  - (ii) palaeontological features;
  - (iii) hydrogeological features; and
  - (iv) soil types.

Each feature shall be listed in a table, together with a short description and if any of the features are absent, this shall be stated. A scaled map, clearly depicting the feature occurrence within the area of influence, shall also be provided.

2. The geo-technical properties and considerations relevant to the site and its area of influence, including:
  - (i) land stability;
  - (ii) mechanical, erosional and structural properties of the terrain and land mass;
  - (iii) any relevant fissures, faults, hollows, or weak points;
  - (iv) the vulnerability of the site to natural forces such as wave action, erosive elements, landslides and mass movements; and
  - (v) any other considerations affecting the implications and risks posed by the proposed development or by any of its ancillary interventions such as site clearance, earth-moving, and excavations.

Each of the above shall be listed in a table along with a short description and if any of the features are absent, this shall be stated. A scaled map, clearly depicting the feature occurrence within the area of influence, shall also be provided.

3. The quality of the material that will be excavated (including soil, rock/mineral resource, and any existing fill material) and its potential for reuse.
4. Sampling and testing should comply with the relevant standards (unless otherwise agreed, BS standards or other recognised equivalents should be used), and should extend to a sufficient depth below the deepest level of the proposed development (taking into consideration all proposed excavations and underground structures). Wherever the study involves the drilling of core samples, the number, depth and location thereof should also be submitted for ERA approval prior to carrying out of any *in situ* tests.

5. Any potential adverse effects on features of interest (see points 1 and 2) must be determined. If at risk of being adversely affected, measures to preserve these features should be provided.

The results of such report would contribute to the selection of the best cable link route, with minimal geo-environmental impacts.

### **3.3 Water bodies (including Terrestrial, Underground and Marine water bodies, as relevant)**

The study should identify the hydrological, hydromorphological and physicochemical characteristics of the water bodies, water resources and aquatic environments in the area under investigation, including (as relevant):

1. The hydrology of the site and its surroundings, including all relevant features and dynamics, such as: aquifers; springs; surface waters; wetlands; watercourses; valley catchments; etc, including a description of any potential linkages between different water bodies (i.e. groundwater linkages to surface waters, coastal water linkages to inland surface waters), also cross-referring to hydrogeological factors (see **Section 3.3** above) as relevant;
2. The type, size and physical characteristics of any aquifers and surface water bodies within the area of influence of the site, including: the nature of the water body (e.g. aquifer, flowing surface water, marine, etc.); whether the water body is ephemeral or permanent; and other characteristics such as depth/bathymetry; type of bottom and topography; prevailing currents and wave exposure; as well as physical and chemical characteristics of the water column which are deemed relevant for determination of hydrological characteristics such as nutrient status, temperature, salinity, dissolved oxygen and pH.
3. Natural and anthropogenic dynamics including groundwater recharge patterns; pumping and abstraction patterns; on-site and off-site drainage patterns; pipe/culvert connectivity between water bodies, run-off patterns; and flood risks; and
4. Water quality (salinity, pollutant load, sediment load and characteristics, microbiological load, BOD & COD, transparency, temperature, etc.), with particular reference to any established quality parameters (e.g. legally-established bathing water quality parameters; effluent discharge parameters; objectives and requirements of the Water Framework Directive, Marine Strategy Framework Directive and related instruments).
5. The study should provide a sufficiently detailed baseline to enable assessment of the effects of the proposal on the quality of the water body (terrestrial, underground and marine), the extent of area affected by hydrographical changes (terrestrial and marine), the nature of the changes (whether temporary or permanent) and effects of such changes on the ecological features and functions as described in line with Section 3.5. Such assessment should be undertaken in line with indicators used/established by relevant EU policy.

### **3.4 Ecology (including Terrestrial Ecology, Avifauna & Marine Ecology)**

The assessment should include:

1. A full bathymetric survey of the existing environment on and around the area likely to be affected, include:
  - a. Offshore bathymetric maps;
  - b. Aerial imagery of the area;
  - c. Details and maps of any services / utilities; and
  - d. Description of the sea-bed morphology and of the sediment characteristics of the site.
2. An investigation of the ecology of the site and its surroundings (including, as relevant: flora, fauna, avifauna, fish and other aquatic organisms, benthic, burrowing and pelagic organisms, and their habitats and ecosystems), duly covering the relevant seasons (e.g. wet and dry seasons, in the case of terrestrial ecology) to ensure adequate coverage of all relevant species and ecosystem components;
3. A reporting of the conservation status and ecological condition of the area and the state of health of its habitats, species and ecological features;
4. A reporting of all protected, endangered, rare, unique, endemic, high-quality, keystone, invasive/deleterious, or otherwise important species, habitats, ecological assemblages, and ecological conditions found in the area under study;
5. A prediction of the potential impacts of the proposed project on the ecology of the site and its surroundings, including loss, damage or alteration of habitats and species populations (including potential increases in ambient noise levels in the marine environment) including alteration in the habitats and species' condition/state of health as measured through indicators used/specified for assessment of status in relevant EU policy;
6. Identification of all relevant species and assemblages (e.g. protected species or habitats, key species relevant to habitat characterisation, and monitoring indicators), and assess their abundance and distribution

patterns as well as the species' ecological niches. The findings should be supported by adequate maps and photographs. Classification of habitat types and species should be conducted in accordance with recognised classification systems (e.g. EUNIS and Palaeartic), to ERA satisfaction;

7. A noise and vibration study providing sufficient detailed information on any impacts on sensitive receptors (fauna and avifauna, natural ecosystems) due to increase in pressure in the area, and the cumulation with other existing sources including maritime vessel traffic and with other predicted sources such as new developments;
8. The nature of the changes (whether temporary or permanent) and effects of such changes on the ecological features; and
9. Other relevant environmental features.

In particular, the study should identify all relevant species and assemblages (e.g. protected species or habitats, key species relevant to habitat characterisation, and monitoring indicators), and assess their abundance and distribution patterns as well as the species' ecological niches. The findings should be supported by adequate maps and photographs. Classification of habitat types and species should be conducted in accordance with recognised classification systems (e.g. EUNIS and Palaeartic), to ERA's satisfaction.

**Note 1:** *Separate Terms of Reference are being referred by ERA for the Appropriate Assessment required in terms of the Flora, Fauna and Natural Habitats Protection Regulations (S.L. 549.44).*

**Note 2:** *Where the area of influence encompasses both marine and terrestrial environments, one or more of the sections indicated in these specimen TORs may need to be restructured accordingly to reflect the specific circumstances (e.g. separate reports for marine and terrestrial ecology).*

### **3.5 Architectural, Archaeological, Historical & Cultural Heritage and related Material Assets**

Refer to Appendix 2.

### **3.6 Infrastructure and Utilities**

The assessment should investigate the currently available infrastructural services (including water supply, energy supply, sewerage, telecommunications infrastructure, access roads, parking, etc.), including details about their carrying capacity, physical condition and other relevant practical considerations. It should also compare this information to the infrastructural demands of the project as identified in **Section 1** above, so as to clearly indicate:

1. whether the current utilities are adequate to meet the demand arising from the proposed development;
2. whether any significant loading, congestion or damaging of the infrastructural or transport network is envisaged; and
3. whether any new or upgraded services/arrangements will be rendered necessary, both in the short-term and in the longer-term. If any requirement for new infrastructure (or upgrading, alteration or extension of the existing infrastructure) is envisaged, the relevant details including associated works and their environmental implications should also be indicated.

The assessment should also identify any existing or projected infrastructural services located within the area of influence of the development (even if not related to the demands of the development) that might be affected by the development or which may need to be displaced or diverted as a consequence of the development or its ancillary operations and interventions.

### **3.7 Public Access**

The assessment should identify the current public access arrangements (particularly the accessibility of the countryside, coast, and public open spaces), including existing footpaths and other public access routes, and should clearly indicate whether these would be affected and how.

Wherever any new or altered arrangements are proposed, these should be clearly identified and their environmental implications should also be indicated.

### **3.8 Other relevant environmental aspects and features**

Other relevant environmental features or considerations not identified in the preceding sections should also be identified and described, as relevant.

## 4.0 ASSESSMENT OF ENVIRONMENTAL IMPACTS AND ENVIRONMENTAL RISKS

All likely significant effects and risks posed by the proposed project on the environment during all relevant phases (including construction/excavation/demolition, operation and decommissioning) should be assessed in detail, taking into account the information emerging from Sections 1, 2 and 3 above. Apart from considering the project on its own merits (*i.e.* if taken in isolation), the assessment should also take into account the wider surrounding context and should consider the limitations and effects that the surrounding environmental constraints, features and dynamics may exert on the proposed development, thereby identifying any incompatibilities, conflicts, interferences or other relevant implications that may arise if the project is implemented.

In this regard, the assessment should address the following aspects, as applicable for any category of effects or for the overall evaluation of environmental impact, addressing the worst-case scenario wherever relevant:

1. An exhaustive identification and description of the envisaged impacts;
2. The magnitude, severity and significance of the impacts;
3. The geographical extent/range and physical distribution of the impacts, in relation to: site coverage; the features located in the site surroundings; whether the impacts are short-, medium- or long-range; and any transboundary impacts (*i.e.* impacts affecting other countries);
4. The timing and duration of the impacts (whether the impact is temporary or permanent; short-, medium- or long-term; and reasonable quantification of timeframes);
5. Whether the impacts are reversible or irreversible (including the degree of reversibility in practice and a clear identification of any conditions, assumptions and pre-requisites for reversibility);
6. A comprehensive coverage of direct, indirect, secondary and cumulative impacts, including:
  - interactions (*e.g.* summative, synergistic, antagonistic, and vicious-cycle effects) between impacts;
  - interactions or interference with natural or anthropogenic processes and dynamics;
  - cumulation of the project and its effects with other past, present or reasonably foreseeable developments, activities and land uses and with other relevant baseline situations; and
  - wider impacts and environmental implications arising from consequent demands, implications and commitments associated with the project (including: displacement of existing uses; new or increased pressures on the environment in the surroundings of the project, including pressures which may be exacerbated by the proposal but of which effects may go beyond the area of influence; and impacts of any additional interventions likely to be triggered or necessitated by situations created, induced or exacerbated by the project);
7. Whether the impacts are adverse, neutral or beneficial;
8. The sensitivity and resilience of resources, environmental features and receptors vis-à-vis the impacts;
9. Implications and conflicts vis-à-vis environmentally-relevant plans, policies and regulations;
10. The probability of the impacts occurring; and
11. The techniques, methods, calculations and assumptions used in the analyses and predictions, and the confidence level/limits and uncertainties vis-à-vis impact prediction.

The impacts that need to be addressed are detailed further in the sub-sections below.

### 4.1 Effects on the environmental aspects identified in Section 3

The assessment should thoroughly identify and evaluate the impacts and implications of the project on all the relevant environmental aspects identified in Section 3 above, also taking into account the various considerations outlined in the respective sections.

With regards to Section 3.3 and 3.5 above, the ecological status of the area in question is to be evaluated, taking into consideration the definition of status by relevant EU Policy, and assessing the extent to which the project will cause deterioration in status or compromise the achievement of good status in line with Article 4(7) of the EU Water Framework Directive.

### 4.2 Impacts related to Climate Change and Climate Change Adaptation

The assessment should address the following aspects, as relevant:

1. The contribution of the project to greenhouse gas (GHG) emissions and climate change, including:
  - (i) The direct, indirect and off-site GHG emissions and related impacts during all relevant phases of the project, including those arising as a result of the electrical power demand of the project;
  - (ii) Any massive GHG emissions that may occur as a consequence of accidents or malfunctions;

- (iii) The impacts of the proposal on carbon sinks (e.g. wooded/afforested areas, agricultural soils, landfills, wetlands, and marine environments);
  - (iv) The components of the project that are expected to contribute to renewable energy generation on site or to a reduction in GHG emissions through substitution of current generation facilities, including a quantification and critique of their reliability and actual net contribution to climate change mitigation as well as an identification of the impacts of such components on other aspects of the environment (e.g. landscape, land take, avifauna); and
  - (v) The implications of the project and its operations and ancillary demands on National GHG emission targets.
2. The implications of climate change on the proposal, including:
- (i) The aspects/elements of the project that are likely to be affected by changes or variability in climate-related parameters (e.g. temperature, humidity, weather patterns, sea level, etc.);
  - (ii) The potential impacts that such changes may have on the proposal, including any possible impacts resulting from changes to multiple parameters; and
  - (iii) The adaptability of the project and its components and operations vis-à-vis the relevant climate change parameters and trends.

#### **4.3 Environmental risk**

The assessment should also address, in sufficient detail, any relevant environmental risk (including major-accident scenarios such as contamination, emissions, explosions, blast, flooding, major spillages, etc.) likely to result in environmental damage or deterioration. The range of accident scenarios considered should exhaustively cover, as relevant:

1. one-time risks (e.g. during construction or decommissioning works);
2. recurrent risks during project operation; and
3. risks associated with extreme events (e.g. effect of earthquakes or natural disasters on the project).

The assessment should include, as relevant: a quantification of the risk magnitude and probability; and risk analysis vis-à-vis any hazardous materials stored, handled, or generated on site or transported to/from the site.

#### **4.4 Effects on Human Populations resulting from impacts on the environment**

This assessment should also identify any impacts of the development on the surrounding and visiting population (e.g. effects on public health), that may result from impacts on the environment. In the case of health-related effects, reference should be made to published epidemiological and other studies, as relevant, and the views of the Environmental Health Directorate should be sought.

### **5.0 REQUIRED MEASURES, IDENTIFICATION OF RESIDUAL IMPACTS, AND MONITORING PROGRAMME**

#### **5.1 Mitigation Measures**

A clear identification and explanation of the measures envisaged to prevent, eliminate, reduce or offset (as relevant) the identified significant adverse effects of the project during all relevant phases including construction, operation and decommissioning [see **Section 1.2.3** above].

As a general rule, mitigation measures for construction-phase impacts should be packaged as a holistic Construction Management Plan (CMP). Whilst the detailed workings of the CMP may need to be devised at a later stage (e.g. after the final design of the project has been approved and/or after a contractor has been appointed), the key parameters that the CMP must adhere to for proper mitigation need to be identified in the EIA. Broadly similar considerations also apply vis-à-vis operational-phase impacts [which may need to be mitigated through an operational permit] and decommissioning-phase impacts [see **Section 5.4** below], where relevant.

Mitigation measures for accident/risk scenarios should be packaged as a holistic plan that includes the integration of failsafe systems into the project design as well as well-defined contingency measures.

The recommended measures should be feasible, realistically implementable to the required standards and in a timely manner, effective and reliable, and reasonably exhaustive. They should not be dependent on factors that are beyond the developer's and ERA's control or which would be difficult to monitor, implement or enforce. The actual scope for, and feasibility of, effective prevention or mitigation should also be clearly indicated, also identifying all potentially important pre-requisites, conditionalities and side-effects.

## 5.2 Residual Impacts

Any residual impacts [*i.e.* impacts that cannot be effectively mitigated, or can only be partly mitigated, or which are expected to remain or recur again following exhaustive implementation of mitigation measures] should also be clearly identified.

## 5.3 Additional Measures

Compensatory measures (*i.e.* measures intended to offset, in whole or in part, the residual impacts) should also be identified, as reasonably relevant. Such measures should be not considered as an acceptable substitute to impact avoidance or mitigation.

If the assessment also identifies beneficial impacts on the environment, measures to maximise the environmental benefit should also be identified.

In both instances, the same practical considerations as indicated vis-à-vis mitigation measures should also apply.

## 5.4 Decommissioning Plan

A decommissioning plan (DP) should also be proposed to address the following circumstances, as relevant:

1. Removal of any temporary or defined-lifetime development (or of any structures, infrastructure or land use required temporarily in connection with it) upon the expiry of their permitted duration; and
2. Removal of the development (or of any secondary developments, infrastructure or land use ancillary to it) in the event of redundancy, cessation of operations, serious default from critical mitigation measures, or other overriding situations that may emerge in future.

The DP should also include, as relevant, a phasing-out plan, proposals for site remediation or decontamination, and methodological guidance on site reinstatement or appropriate after-use.

## 5.5 Monitoring Programme

A realistic and enforceable programme for effective monitoring of those works envisaged to have an adverse or uncertain impact. The monitoring programme should include:

1. Details regarding type and frequency of monitoring and reporting, including spot checks;
2. The parameters that will be monitored, their units of measurement, the monitoring indicators to be used; and standard analytical methods in line with relevant EU policy;
3. An effective indication of the required action to address any exceedances, risks, mitigation failures or non-compliances for each monitoring parameter;
4. An evaluation of forecasts, predictions and measures identified in the EIA; and
5. An indication of the nature and extent of any additional investigations (including EIAs or ad hoc detailed investigations, if relevant) that may be required in the event of any contingencies, unanticipated impacts, or impacts of larger magnitude or extent than predicted.

The programme should address all relevant stages, as follows:

- (a) Where relevant, monitoring of preliminary on-site investigations that may entail significant disturbance or damage to site features (*e.g.* archaeological excavations, geological sampling, or any works that require prior site clearance or any significant destructive sampling);  
*[Note: Official written consent from the competent authorities (e.g. Superintendence of Cultural Heritage) may also be required for such interventions.]*
- (b) Monitoring of the construction phase, including the situation before initiation of works (including site clearance), during appropriate stages of progress, and after completion of works;
- (c) Monitoring of the operational phase, except where otherwise directed by ERA (*e.g.* where monitoring would be more appropriately integrated into an operating permit); and
- (d) Where relevant, monitoring of the decommissioning phase, including the situation before initiation of works, during appropriate stages of progress, and after completion of works.

## 5.6 Identification of required authorisations

The assessment should also identify all environmentally-relevant permits, licences, clearances and authorisations (other than the development permit to which this EIA is ancillary) which must be obtained by the applicant in order to effectively implement the project if development permission is granted. Any uncertainty, as to whether any of these pre-requisites is applicable to the project, should be clearly stated.

**Note on Sections 5.1 to 5.6 above:**

The expected effects, the proposed measures, the residual impacts, the proposed monitoring etc. should also be summarised in a user-friendly itemised table that enables the reader to easily relate the various aspects to each other. An indicative specimen table is attached in **Appendix 3**.

FINAL

**Signed Declaration: Conflict of interest**

**Signed declaration in accordance with sub-regulation 17(3):**

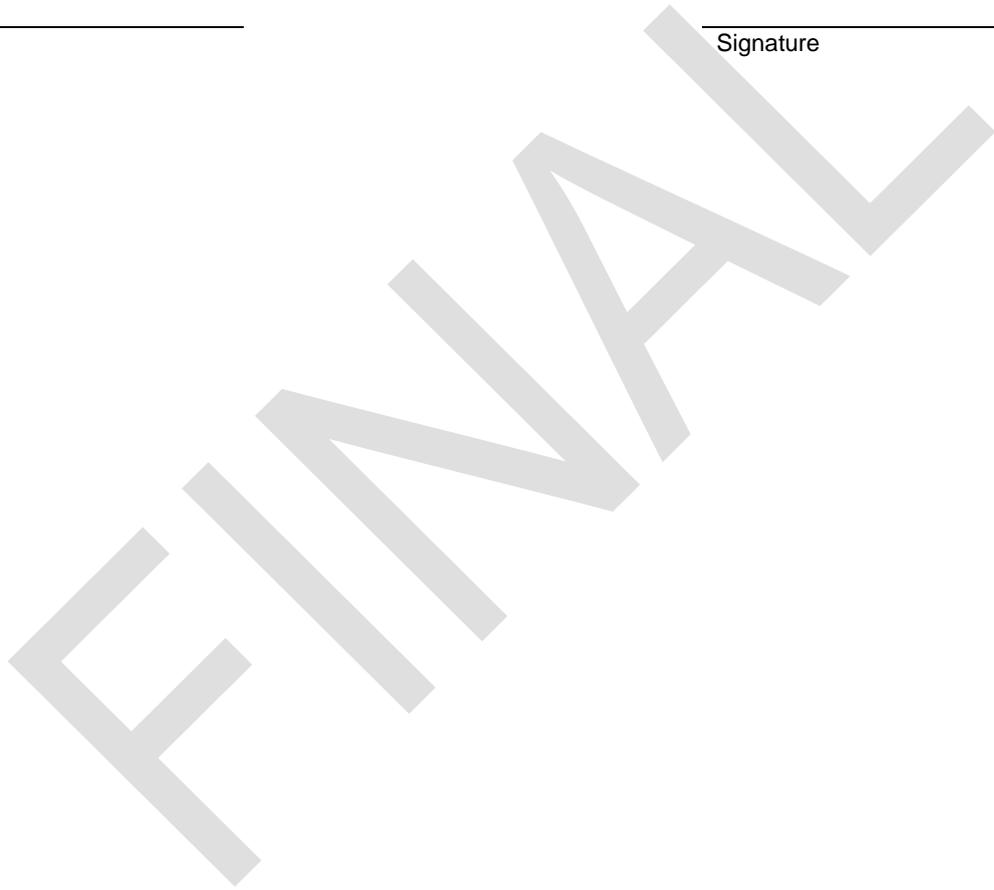
This declaration is to be submitted with each environmental survey report forming part of the EIA.

Attn: Director of Environment and Resources (ERA).

I, \_\_\_\_\_, hereby declare that, I have no personal or financial interest in the proposed development. Moreover, I declare that I am not in any way associated with any individual, company, association or grouping that has any direct or indirect, personal, professional or financial interest in the proposed development.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature



## **1.0 Preamble**

The project shall consist of an underwater and onshore cable link between the Magtab Terminal Station and the Ragusa substation in Sicily. The proposed project would involve development over an extensive area and may lead to intensification of activity over a larger area. Potential impacts may occur within the footprint of the project, in the immediate environs, and along access routes to the site. Potential impacts may include direct and immediate material impacts, as well as subsequent impacts that might arise from the modification of the existing situation. The precise methodology for the laying of the underwater cables is also to be specified since this may have an impact on the buffers required from known underwater archaeological features/ wrecks.

## **2.0 Scope and Definitions of the EIA**

For the purposes of this document, cultural heritage is defined by Article 2 of the Cultural Heritage Act (2019). This includes movable or immovable objects of artistic, architectural, historical, archaeological, ethnographic, palaeontological and geological importance.

2.1 The study area shall include each of the proposed routes as well as their immediate environs.

2.2 In the context of this particular application, cultural heritage considerations may include:

- Features of archaeological value and potential;
- Military or civil architecture covering all historic periods;
- Vernacular structures;
- Field systems and agricultural features such as irrigation systems.

The Superintendence notes that the Project Description Statement (PDS) at section 9.3 Cultural Heritage Features refers to the Ta' Hammut Dolmens when discussing onshore cultural heritage features in close proximity to the development. The Superintendence would also like to draw attention to the following features as indicated in the map below and identified in the legend overleaf.



Figure 1: Cultural Heritage Features in Close Proximity to the Development

Number	Property Name
1	Qalet Marku Tower
2	Church of the Assumption of the Madonna
3	Qalet Marku Battery (Remains)
4	Qalet Marku Redoubt remains
5	Bahar ic-Caghaq Redoubt
6	Madliena Entrenchment
7	Chapel of Saint John Evangelist
8	Chapel fo Saint Peter the Fisherman
9	Church of Mary of the Angels
10	NXR2014 - Archaeological Remains
11	SAL2015 (Coast Road) Archaeological Remains
12	SAL2015 (Coast Road) Archaeological Remains
13	QLT1928 - Dolmens
14	QLT1935 - Magalithic remains
15	MTB1935 - Megalithic passageway
16	Ancient Quarry
17	Tomb
18	Tomb
19	Tomb
20	Rock-cut feature

*Figure 2: Legend Identifying Cultural Heritage Features in Close Proximity to the Development*

The Superintendence further notes that the PDS also includes a map of known wrecks in the vicinity of the proposed offshore routes and at section 14 proposes that a marine survey is undertaken to identify any wrecks/archaeological remains along the identified routes. The Superintendence endorses this approach.

The above cultural heritage definitions and considerations are not to be considered as exhaustive. The EIA must consider all other forms of cultural heritage, both known and unknown.

2.3 The Environmental Impact assessment will:

- Describe the Cultural Heritage assets within the study area;
- Analyse the cultural heritage features within the context of the cultural landscape;
- Assess the physical, spatial and visual impacts of the proposed development on the cultural heritage assets;
- Propose corrective measures for the protection of the cultural resources.

### **3.0 Methodology**

In quantifying the cultural heritage assets within the study area, and assessing the impacts of the proposed development, the EIA will undertake:

- Description and assessment of the cultural heritage features in close proximity to the development;
- Desktop and archival research limited to the study area;
- Fieldwork and research, including "field walking", topographic survey and remote sensing and underwater surveys as may be necessary within the site. Should fieldwalking not form part of the selected methodology at this stage, the Superintendence may impose this method once the preferred route is selected for further data acquisition should the need arise.

All fieldwork is to be authorised by the Superintendence of Cultural Heritage as defined below under point 4;

- Consultations with any relevant bodies, including the Superintendence of Cultural Heritage, Heritage Malta, the University of Malta, NGOs and Local Councils;
- Compilation of an inventory of the cultural heritage assets identified within the study area. The features of cultural heritage are to be described and plotted with grid references, on Data Capture Sheets, the design of which should be approved in advance by the Superintendence of Cultural Heritage. The Data Capture Sheets will be presented as an appendix to the EIS. The analysis of the features will be included in the main report;
- A cultural heritage Risk Assessment Map examining the various impacts of the proposed project is to be included in the EIA.

#### ***4.0 Authorisation by the Superintendence of Cultural Heritage***

As per Cultural Heritage Act 2019, any form of investigation or prospection required for the identification of cultural heritage (including excavation, field walking, topographic surveys, remote sensing and underwater surveys) may only be undertaken by the Superintendence of Cultural Heritage or with its written approval.

ENVIRONMENTAL

**APPENDIX 3: SPECIMEN IMPACT TABLE**

Impact type and source			Impact receptor		Effect & scale							Probability of impact occurring (Inevitable, Likely, Unlikely, Remote, Uncertain)	Overall impact significance	Proposed mitigation measures	Residual impact significance	Other requirements (monitoring, authorisations, etc)
Impact type	Specific intervention leading to impact	Project phase (construction/ operation/ decommissioning)	Receptor type	Sensitivity toward impact	Direct/ Indirect/ Cumulative	Beneficial/ Adverse	Severity	Physical / geographic extent of impact	Short-/medium- / long-term	Temporary (indicate duration)/ Permanent	Reversible (indicate ease of reversibility) / Irreversible					

*[Insert definition of relevant criteria used to describe the impacts]*