

## **LEASE AND OPERATION OF 60MW POWER GENERATION PLANT 2023 – TENDER**

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15/04/2024




REFERENCE NUMBER:

GN/DPS/T/4036/PC3/2023 (10154)

# LEASE AND OPERATION OF A 60MW POWER PLANT

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## Enemalta plc

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## Summary Sheet

File Ref.:	GN/DPS/T/4036/PC3/2023 (10154)
Tender Title:	Lease and Operation of a 60MW Power Plant
Date published:	24/01/2024
Brief Description:	Lease and Operation of a 60MW Power Plant
Closing date:	06/03/2024
Contract Operation Term:	27 months
Deadline for request for clarifications	15/02/2024
Deadline by which CA issues clarifications	21/02/2024
Expiry of Bid bond	N/A
Date of Clarification Meeting/Site Visit	12/02/2024
Time of Clarification Meeting	9.00am

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## SECTION 1 - INSTRUCTIONS TO TENDERERS

### 1. General Provisions

- 1.1 The subject of this tender is the lease and operation of a diesel-fuelled 60MW Power Plant.
- 1.2 The place of acceptance of the supplies shall be Delimara Power Station. The duration of the contract is:
- thirteen (13) weeks for the erection and commissioning from effective start of the contract (the Contract Erection Term), followed by
  - twenty-seven (27) months operations from Commissioning Date (the Contract Operation Term), followed by
  - four (4) weeks for the decommissioning and dismantling of the plant following termination of the Contract Operation Term.

The Commissioning Date shall be the date upon which the Contractor shall have commissioned the Power Plant and made it available for dispatch to the satisfaction of the Contracting Authority.

The lease agreement shall be for 27 months from commissioning date, with 2 optional 6-month extension(s) of up to one (1) year upon agreement of both parties. If this option is taken, the Contracting Authority shall provide written notice to the Contractor at least six (6) months prior to the last day of the Contract Operation Term. The INCOTERM<sup>2020</sup> applicable shall be **Delivery Duty Paid (DDP)**.

- 1.3 The Estimated Procurement Value for this Call for Tenders has been based on comprehensive research including appropriate financial analysis. In the context of this procurement, the Estimated Procurement Value, based on market research, is that of €46 million excluding VAT and excluding fuel cost which shall be provided free of charge by the Contracting Authority.

The purpose of this value shall be the guidance of Tenderers when submitting their offer and is not to be considered as a binding capping price.

Therefore, the published Estimated Procurement Value is not restrictive and final on the Contracting Authority. Economic Operators are free to submit financial offers above or below the Estimated Procurement Value. However, the Contracting Authority reserves the right to accept or reject Financial Offers exceeding the Estimated Procurement Value.

- 1.4 The final beneficiary of this tender is Enemalta plc.

### 2. Timetable

The timetable is as per the dates set through the CfT workspace on the ePPS and listed below.

	DATE	TIME
Clarification Meeting/Site Visit (Refer to Clause 4.1)	12/02/2024	9.00am
Deadline for request for any additional information from the Contracting Authority: Clarifications by registered users to be sent online through <a href="http://www.etenders.gov.mt">www.etenders.gov.mt</a>	15/02/2024	09:30
Last date on which additional information can be issued by the Contracting Authority	21/02/2024	09:30

Deadline for submission of Tenders (unless otherwise modified in terms of Clause 10 of the General Rules Governing Tendering)	06/03/2024	09:30
Tender Opening Session (unless otherwise modified in terms of Clause 10 of the General Rules Governing Tendering)	06/03/2024	10:00
* All times Central European Time (CET) / Central European Summer Time (CEST) as applicable		

### 3. Lots

- 3.1 This tender is not divided into lots, and tenders must be for the whole of quantities indicated. Tenders will not be accepted for incomplete quantities.

### 4. Clarification Meeting/Site Visit

- 4.1 A site visit will be held on 12/02/2024, at Delimara Power Station so that the Tenderers will have the opportunity to familiarize themselves with the services/works being requested in the tender document.

Tenderers may submit questions in writing to the Contracting Authority through the contact details and within the timeframes as detailed in Clause 2 of the Instructions to Tenderers. Clarifications shall be posted online as a clarification note as per Clause 6.1 of the General Rules Governing Tendering.

Those prospective Tenderers interested in attending the site visit are to register their interest by sending an e-mail to Enemalta plc on:

[procurement.em@enemalta.com.mt](mailto:procurement.em@enemalta.com.mt).

Meetings between economic operators and the Contracting Authority, other than that provided in this clause during the tendering period are not permitted.

### 5. Selection and Award Requirements

In order to be considered eligible for the award of the Contract, economic operators must provide evidence that they meet or exceed certain minimum criteria described hereunder.

#### (A) Eligibility Criteria

Economic Operators are to complete the Eligibility Section through the tender response format (Note 2)

If applicable, the necessary forms - such as the Power of Attorney, are to be uploaded through the tender response format/ePPS/xml structure by the Economic Operator, as indicated in the relevant fields of the tender structure.

**(B) Exclusion (including Blacklisting) and Selection Criteria** - information to be submitted through the European Single Procurement Document (ESPD) in the tender response format<sup>(Note 2)</sup>

The Exclusion (including Blacklisting) criteria are to be completed by the Economic Operator in the ESPD (Tender response format) under Part III titled 'Exclusion Grounds' which includes the following:

- A. Grounds relating to Criminal Convictions

- B. Grounds relating to the payment of taxes or social security contributions
- C. Grounds relating to insolvency, conflicts of interests or professional misconduct
- D. Purely national exclusion grounds

Kindly note that the ESPD tender response format is pre-populated by the system. It is the Economic Operator's responsibility to ensure that the correct information is reflected in the ESPD tender response format for the above criteria.

Selection Criteria requirements are to be completed by the Economic Operator in the ESPD (Tender response format) under Part IV titled 'Selection Criteria' which includes the following: <sup>(Note 2)</sup>

- (i) **Suitability**<sup>(Note 2)</sup>  
Not Applicable

- (ii) **Economic and Financial Standing**<sup>(Note 2)</sup>

**Average yearly turnover**

The minimum average yearly turnover of the Tenderer during the past 3 years (being 2021-2023) shall be not less than €15,000,000 per year. This information shall be included in the indicated field of the integrated ESPD.

- (iii) **Technical and Professional Ability** <sup>(Note 2)</sup>

- (i) **Performance of services of the specified type**

The Tenderer shall submit a list of contracts involving leasing of a Power Plant carried out satisfactorily during the past three years, i.e., 2021, 2022 and 2023, and having a minimum value of €10 million in total, with at least one of the listed contracts having a minimum value of €5 million. The list shall include the name of the client(s), date of the contract(s) and the value of the contract(s).

In so listing the end clients, the Tenderer is giving his consent to the Evaluation Committee, so that the latter may, if it deems necessary, contact the relevant clients, with a view to obtain from them an opinion on the services provided to them, by the Tenderer. The Evaluation Committee reserves the right to request additional documentation in respect of the contracts listed.

- (ii) **Subcontracting proportion**

Provide data concerning subcontractors and the percentage to be subcontracted. This information shall be included in the online ESPD form in Part IV: Selection criteria - 'Subcontracting proportion'.

Any subcontractor proposed and disclosed at this stage shall be evaluated in line with the Exclusion and Blacklisting Criteria as per these Instructions to Tenderers. Furthermore, if the sub-contractor is relied upon by the Contractor to meet the standards established in the selection criteria, apart from submitting the relevant commitments in writing, such reliance will be evaluated to verify its correctness and whether in effect these criteria are satisfied.

It is being understood that if the information being requested regarding sub-contracting is left empty, it will be assumed that no sub-contracting will take place (0% subcontracting).

(iv) **Quality Assurance Schemes and Environmental Management Standards**<sup>(Note 2)</sup>

The Tenderer shall submit a valid copy of ISO14001 certificate or equivalent.

It is the Economic Operator's responsibility to ensure that the correct information is reflected in the ESPD tender response format for the above criteria.

**(C) Specifications**

- (i) Tenderer's Technical Offer, in the form of a filled-in Technical Offer Schedule (available as a Contract Document), in response to specifications to be submitted online through the prescribed Tender Response Format and by using the Tender Preparation Tool provided<sup>(Note 3)</sup>
- (ii) Submit online a list of **Key Experts** and other staff proposed for the execution of the contract as per Form marked 'Key Experts', available as a Contract document, through the prescribed Tender Response Format and by using the Tender Preparation Tool provided.  
(Note 2)

The Key Experts are expected to be good in communication, technical writing and reporting skills in the English Language.

All Key Experts are required to attend meetings from time to time, as deemed necessary by the Contracting Authority.

The list shall include:

- one (1) in number **Warranted Electrical Engineer\*** having at least a Bachelor's Degree in Electrical Engineering - MQF Level 6 or equivalent\*\*) and a minimum of three (3) years' experience in power engineering and who shall be responsible for all the works in his field of expertise during the erection, commissioning, operation and dismantling of the Power Plant.
- one (1) in number **Warranted Mechanical Engineer\*** having at least a Bachelor's Degree in Mechanical Engineering - MQF Level 6 or equivalent\*\*) and a minimum of three (3) years' experience in heavy machinery and who shall be responsible for all the works in his field of expertise during the erection, commissioning, operation and dismantling of the Power Plant.
- one (1) **Warranted Civil Engineer** having at least a Bachelor's Degree in Architecture, Civil Engineering or a related field - MQF Level 6, or equivalent\*\*) and having a minimum of three (3) years' experience in civil engineering projects and who shall be responsible for all the works in his field of expertise during the erection and dismantling of the Power Plant. At the signing of the contract, the responsibility of all permits issued in the name of the Contracting Authority's civil engineer will need to be transferred to the Contractor's Civil Engineer, as required by the Laws of Malta.
- one (1) **Health and Safety Officer** having at least a Diploma in Occupational Health and Safety - MQF level 5 or equivalent\*\*. The Health and Safety Officer shall be a

competent person registered with the Occupational Health and Safety Authority (OHSA). The Health and Safety Officer shall have a minimum of five (5) years' experience in the construction industry, including a minimum of three (3) years' documented experience as Principal Health and Safety Officer on construction projects including design, management and compliance aspects of Health and Safety legislation. The Health and Safety Officer shall be responsible for all health and safety issues during all phases of the project.

- One (1) **Site Manager** having at least MQF level 4 or equivalent\*\* in Construction Management, or an Engineering related subject, or similar. The Site Manager shall be responsible for the site management and coordination of the various tasks and shall ensure the smooth running of all activities on site. He/she shall be the site Representative of the Contractor and is expected to be on site for the whole duration of the works erection, installation and dismantling phases.

Tenderers shall submit as part of their offer a CV for each Key Expert, together with copies of relevant qualifications and/or certificates.

Furthermore, the Tenderers shall submit as part of their offer a filled-in Statement of Availability (as per specimen), the Public Employees Declaration Form (self-declarations relating to public employees, if applicable) and the Professionals Declaration Form (if applicable), for each Key Expert listed.

*The Evaluation Committee reserves the right to request the Tenderers to substantiate their claims in respect of the Key Experts proposed by requesting further information.*

\*Note that the position of Warranted Electrical Engineer and Warranted Mechanical Engineer can be occupied by the same individual if all the listed requirements are satisfied by the same person.

\*\* Qualifications required are defined with reference to the **Malta Further & Higher Education Authority (MFHEA)** (previously known as the **Malta Qualifications Council**):

[Malta Qualifications Database \(gov.mt\)](http://gov.mt)

- (iii) Literature as per Form marked 'Literature List' to be submitted with the Technical Offer at tendering stage. The scope of the literature is to corroborate a fully compliant technical offer. *(Note 2)*

#### **(D) Financial Offer**

- (i) A financial offer calculated on the basis of **Delivered Duty Paid (DDP)<sup>2020</sup> (Grand Total)** for the services tendered as per Tender Response Format. *(Note 3)*
- (ii) A filled-in Financial Bid Form as per Tender Response Format. *(Note 3)*  
**In case of any discrepancy the xml tender structure shall prevail.**

**The above does not apply in instances wherein the financial bid form consists of a Bill of Quantities (BoQ) or financial bid forms where the total can be arithmetically worked out and corrected as necessary/applicable.**

Notes to Clause 5:
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1. *Tenderers will be requested to clarify/rectify, within five (5) working days from notification, the tender guarantee only in the following four circumstances: either incorrect validity date, and/or incorrect value, and/or incorrect Addressee and incorrect name of the Tenderer. Rectification in respect of the Tender Guarantee (Bid Bond) is free of charge. (currently Bid Bonds are not applicable)*
2. *Tenderers will be requested to either clarify/rectify any incorrect and/or incomplete documentation, and/or submit any missing documents within five (5) working days from notification.*
3. *No rectifications shall be allowed. Only clarifications on the submitted information may be requested. Tenderers will be requested to clarify the submitted information within five (5) working days from notification.*

Requests for Clarifications and/or Rectifications concerning a previous request dealing with the same shortcoming shall not be entertained.

## **6. Criteria for Award**

- 6.1 The sole award criterion will be the cost. The contract will be awarded to the Tenderer submitting the lowest cost offer satisfying the administrative and technical criteria.
- 6.2 For evaluation purposes, the total lease and operation cost of the Power Plant will be calculated as detailed in Appendix 2.

## **7. Data Protection**

- 7.1 References to “Data Controller”, “Data Subject”, “Personal Data”, “Process”, “Processed”, “Processing”, “Data Protection Officer” and “Data Processor” in this clause have the meanings set out in and will be interpreted in accordance with the Applicable Data Protection Laws. “Applicable Data Protection Laws” shall mean the relevant data protection and privacy laws, including but not limited to, the General Data Protection Regulation (EU) 2016/679, and the Data Protection Act, Chapter 586 of the Laws of Malta and subsidiary legislation thereto, as may be amended from time to time.
- 7.2 By signing and submitting the tender and accompanying documentation and information, the Tenderer acknowledges the processing of any Personal Data for the purposes specified in the Privacy Notice for Entities exchanging information with Enemalta plc and confirms to have read such notice. A copy of this Privacy Notice is available on the Enemalta plc website at the link <https://www.enemalta.com.mt/uncategorised/privacy-notice-entities-exchanging-information-enemalta-plc-2/>
- 7.3 The Tenderer hereby acknowledges that processing of Personal Data pertaining to the Contracting Authority’s Data Subjects may validly take place according to the Applicable Data Protection Laws.
- 7.4 If the Tenderer supplies to the Contracting Authority any Personal Data of third-party Data Subjects such as employees, affiliates, service providers, customers or any other individuals connected to their business, the Tenderer shall be solely responsible to ensure that:
  - i. it immediately brings the Enemalta Privacy Notice for Entities exchanging information with Enemalta plc to the attention of such Data Subjects and direct them to it;
  - ii. the collection, transfer, provision and any processing of such Personal Data by the Tenderer fully complies with any Applicable Data Protection Laws;

- iii. the Tenderer remains fully liable towards such Data Subjects and shall adhere to the Applicable Law;
- iv. the Tenderer collects any information notices, approval, consents or other requirements that may be required from such Data Subject before providing the Contracting Authority with their Personal Data; and
- v. the Tenderer remains responsible for making sure that the information given to the Contracting Authority is accurate and up to date and must inform the Contracting Authority of any changes as soon as possible.

7.5 The Tenderer hereby fully indemnifies the Contracting Authority and shall render the Contracting Authority completely harmless against all costs, damages or liability of whatsoever nature resulting from any claims or litigation (instituted or threatened) against the Contracting Authority as a result of the provision of said Personal Data to the Contracting Authority.

## SECTION 2 - SPECIAL CONDITIONS

These conditions amplify and supplement, if necessary, the General Conditions governing the contract. Unless the Special Conditions provide otherwise, those General Conditions remain fully applicable. The numbering of the Articles of the Special Conditions is not consecutive but follows the numbering of the Articles of the General Conditions. Other Special Conditions may be indicated afterwards.

### ***Article 1: Definitions and Conventions***

- 1.7 The parties to the contract are to ensure that the implementation and the execution of this contract is to be carried out in compliance with the Public Procurement of Entities operating in the Water, Energy, Transport and Postal Services Sectors Regulations (S.L.601.05). Instances not regulated by this contract are regulated by Maltese Law.
- 1.8 For the purposes of this contract, the terms ‘approval by the Director’ or ‘approval from the Central Government Authority’ shall be substituted by the term ‘approval by the Head of the Contracting Authority’.

As per Regulation 30 of the Public Procurement of Entities operating in the Water, Energy, Transport and Postal Services Sectors Regulations (S.L.601.05), public contracts required by Enemalta plc shall be issued, administered and determined by it on its own without the involvement of the Director, subject to the provisions set out in these regulations, including but not limited to the right of appeal.

### ***Article 2: Notices and Written Communications***

- 2.4 On notice of award of contract Enemalta plc shall nominate the Project Manager and the Contractor shall nominate the Contractor’s Representative. Addresses for communications shall also be supplied.

Preliminary correspondence following contract award can be sent to:

Enemalta plc  
 Central Administration Building,  
 Church Wharf, Marsa MRS 1571, Malta.  
 Tel: (356) 2298 0738 / 352 / 731.  
 Fax: (356) 2298 0660  
 e-mail: [procurement.em@enemalta.com.mt](mailto:procurement.em@enemalta.com.mt)

- 2.5 The contract is made up of the following documents, in order of precedence:
- (a) the signed agreement;
  - (b) the Special Conditions;
  - (c) the General Conditions;
  - (d) the Contracting Authority’s terms of reference and design documentation;
  - (e) the Contractor’s technical offer, and the design documentation submitted by the Contractor (drawings);
  - (f) the financial bid form (after arithmetical corrections if any)/breakdown;
  - (g) the tender declarations in the Tender Response Format;
  - (h) any other documents forming part of the contract.

Addenda have (including clarifications/rectifications at evaluation stage) the order of precedence of the document they are modifying.

- 2.6 The Contractor shall submit the name of a contact person and a mobile telephone number which may be used to contact the Contractor in an emergency.

### ***Article 5: Supply of Information***

- 5.1 As per General Conditions and Terms of Reference.

### ***Article 6: Assistance with Local Regulations***

- 6.1 Further to the General Conditions, the contractor may request assistance from the Contracting Authority with regards to relevant rules and regulations, however, the contractor is expected to be familiar with the permit procedures and is responsible for obtaining permits required from the respective authorities and entities.
- 6.2 General Condition 6.2 is not applicable to this contract.

### ***Article 7: General Obligations of the Contractor***

- 7.11 General Condition 7.11 is not applicable to this Contract.
- 7.12 The Contractor shall, within 15 calendar days of receipt of the contract, sign and date the contract and return it with the original Performance Guarantee. The contract will not be endorsed by the Contracting Authority until the performance guarantee is submitted. The amount of the guarantee shall be 10% of the total contract value.

The performance guarantee shall be in the format specified in Section 4 (Supplementary Documentation) of the procurement document.

- 7.15 The performance guarantee shall be released within 30 days of the issue of a certificate by the Contracting Authority stating that the contract has been executed satisfactorily and the site/s returned in a satisfactory condition.
- 7.16 The Contractor is to inform himself fully about all aspects of the works specified by the Contracting Authority for successful design and completion of the temporary Power Plant.

Unless stated specifically to the contrary in the Tender with full supporting explanations, the Contractor shall be deemed to have concurred, as a practical supplier, with the design and layout of the works as being sufficient to ensure reliability and safety in the operation, freedom from undue stresses and satisfactory performance in all the other essentials as a working plant.

- 7.17 The Contractor shall take full responsibility for the adequacy, stability and safety of all operations and methods of construction under the contract.
- 7.18 The Contractor's Representative on site or his nominated deputy shall be given full responsibility to make decisions regarding points arising during the installation, operation and dismantling so that the work may be expedited with as few delays as possible. The Contractor is required to provide a responsibility chart for his personnel responsible for the various parts of the project.

### ***Article 11: Specifications and Designs***

- 11.3 The Contractor shall be responsible to perform his own basic and detailed design and engineering, including studies, calculations, field investigations, preparation of drawings, specifications, procedures, construction drawings as necessary for the fabrication, testing, construction, erection,

licensing/permitting, commissioning, starting up, site testing of the whole plant, in accordance with the applicable laws and regulations, the tender specification and referenced standards, and good engineering practice.

The Contracting Authority reserves the right to request the full set of results of any calculations performed by the Contractor.

- 11.4 Documents and drawings shall be approved by the Contracting Authority within one (1) week from receipt of such documents.
- 11.5 As soon as possible, but not later than two (2) weeks from Commencement Date and before commencement of any work, the Contractor shall submit:
- (i) dimensioned drawings showing all details of the plant and materials to be used;
  - (ii) electrical schematic diagrams associated with the 33kV switchgear and related controls and relay boards that make up the 33kV interface to the Contracting Authority's 33kV circuit breaker(s);
  - (iii) a separate schematic drawing shall clearly show the physical location of the circuit breaker where the 33kV connection with the Contracting Authority ends on the Contractor's plant side.

The drawings submitted shall be modified as necessary if requested by the Contracting Authority and resubmitted for final approval.

SI units of measurement shall be used throughout in all documents and drawings. Documents and drawings in Imperial units of measurement shall not be accepted.

All drawings shall be submitted in ACAD or PDF format. Other formats shall not be accepted.

- 11.6 The Contractor must submit an Inspection, Testing and Commissioning Plan for the approval of the Project Manager with seven (7) weeks following the award of contract. This is subject to approval by the Project Manager. Any amendments which may need to be made to this plan will have to be approved by the Project Manager.

### ***Article 13: Medical, Insurance and Security Arrangements***

- 13.3 Further to the General Conditions, The Contractor shall take out insurance, in both his own, and the Contracting Authority's name against any loss or damage for which he is liable under the contract. Such insurance shall cover:
- a) the plant and material involved in the delivery of the service to the full replacement cost against all loss or damage from whatever cause arising other than from force majeure or risks attributable under the contract to the Contracting Authority;
  - b) an additional sum of 15% of such replacement cost to cover all the additional direct or indirect costs of making good losses or damage, including professional fees;
  - c) the Contractor's equipment and other things used by the Contractor for the execution of the contract, for a sum sufficient to provide their replacement.
- 13.3.1 The Contractor shall take out sufficient insurance against sickness, industrial accidents including the cost of repatriation on health grounds, and civil liabilities arising from the execution of the contract to any person employed by the Contractor on the contract.

- 13.3.2** The amount of insurance covering liability in case of personal injuries arising from the execution of the works to any person employed by the Contractor on the works or to the Contracting Authority and its employees shall be €1,000,000.
- 13.3.3** The Contractor shall take out insurance covering liability with regard to risks and civil liability resulting from an act or omission attributed to him, to his legal successors or agents. The liability cover shall be of at least €10,000,000. The Contractor shall ensure that all his subcontractors have taken out similar insurance.
- 13.3.4** The Contractor shall take out a Contractors' All Risk Insurance cover. This insurance shall be in both his own and the Contracting Authority's name and includes a Cross Liability Clause against any loss or damage for which he is liable under the contract. Such insurance shall include: -
- a) The works together with materials and plant for incorporation therein, to the full replacement cost against all loss or damage from whatever cause arising,
  - b) Liability to Third Parties in respect of Property Damage and Bodily Injury arising out of the contract.

Limit of Indemnity shall be at least €10,000,000 per occurrence with the number of occurrences unlimited.

The Contractor shall also include a surrounding property cover as per L.N.136 of 2019.

- 13.3.5** The Contractor shall take out and maintain a professional indemnity insurance to cover the risk of professional negligence in the design of the Project. This insurance shall be for a limit of not less than €1,500,000.

The professional indemnity insurance shall be maintained in full force until issue of the Final Acceptance Certificate.

- 13.3.6** All the insurance referred to in this Article shall be taken out within 20 days of the commencement of the contract and shall be subject to approval by the Contracting Authority. Such insurance shall take effect from the commencement of the services and remain in force until final acceptance of the services. On being asked to do so by the Contracting Authority or the Project Manager, the Contractor shall promptly present the Contracting Authority with the insurance policy and proof that premiums have been duly paid.
- 13.3.7** The Contractor may substitute the insurance provided for in Articles 13.3 to 13.3.6 by a comprehensive insurance policy that covers, inter alia, the elements of Articles 13.3 to 13.3.6. In that case, the Contractor shall notify the insurer of the Contracting Authority's interest.
- 13.3.8** Notwithstanding the Contractor's insurance obligations under Article 13, the Contractor shall bear sole liability for, and indemnify the Central Government Authority, the Contracting Authority and the Project Manager against, any claims by third parties for damage to property or personal injuries arising from the execution of the contract by the Contractor, his subcontractors and employees.
- 13.3.9** Further to what is being stipulated in Articles 13.3 to 13.3.8 above, the onus of any insurance requirements shall lie solely on the Contractor during implementation of the contract. Therefore, it will be up to the Contractor to undertake the necessary insurance policies (including his own employees' liabilities, third parties, as well as those of the Contracting Authority) accordingly. If and so far as the Contractor fails to effect and keep in force any of the insurance policies referred to in the Special and General Conditions of the Contract, then the Contracting Authority may effect and

keep in force such insurance policies on his/her behalf and pay any premium as may be necessary for that purpose. The expenses to cover such policies will be deducted from the contract amount due to the Contractor, without the need to get his/her consent.

**13.8** The Contractor shall, at all times, comply with all the relevant Occupational Health and Safety Laws and Regulations, in particular but not limited to the Occupational Health and Safety Authority Act [CAP 424 of the Laws of Malta], all regulations and subsidiary legislation enacted under the said Act, as well as any other laws, regulations, standards, and/or codes of practice, in effect during the execution of the contract, regarding health and safety issues as they apply to the nature of the work subject to this agreement.

**13.8.1** The Contractor warrants that all information and documents pertaining to health and safety shall be made available to the Contracting Authority on demand. Without prejudice to the generality of the foregoing, the following documentation shall be submitted by the Contractor to the Contracting Authority:

- (a) the risk assessment;
- (b) the technical works method statement;
- (c) the safe works method statement

which are subject to the Contracting Authority's approval.

**13.8.2** Without prejudice to the foregoing, the Contractor shall also comply with the Contracting Authority's policies regarding Health and Safety and Environmental Management System (S/EMS) and the Contractors' Manual disseminated by the Contracting Authority to the contractors.

**13.8.3** The Contractor shall at all times, assume responsibility and accountability in relation to health and safety for all work carried out by its employees and/or subcontractors, including any third parties involved in the execution of this contract.

**13.8.4** The Contractor shall maintain at all times a health and safety management system in line with the relevant health and safety regulations.

Furthermore, the Contractor shall create a Health and Safety File which shall be kept on site for the duration of the contract.

The Health and Safety file shall be made available for inspection by any OHS inspector, subcontractor, the Project Manager, the Contracting Authority, or employees upon the request of such persons.

The Health and Safety File shall be handed over to the Contracting Authority following the completion of the Contract.

**13.8.5** Upon the occurrence of an event leading to a possible health and safety hazard, the Contractor shall use its best endeavors to notify the Contracting Authority of such circumstances as early as possible. Furthermore, the Contractor shall use its best endeavors to eliminate or contain the hazard in question.

**13.8.6** The Contracting Authority reserves the right to monitor the Contractor's activities and carry out safety inspections and/or audits from time to time during the progress of the contract. In the event that the Contracting Authority reasonably believes that the Contractor is not complying with health and safety requirements as mentioned above, the Contracting Authority hereby reserve the right to suspend the work at the Contractor's expense until the latter remedies the situation to the satisfaction of the Contracting Authority within the period provided by the Contracting Authority. Failure to remedy the situation to the satisfaction of the Contracting Authority may lead to the immediate termination of the contract without prejudice to any other provision hereof, and without prejudice to any claim for

damages or other remedy to which the Contracting Authority may be entitled either at law or under this Agreement.

- 13.8.7** Subsidiary Legislation 424.27 entitled Workplace (Minimum Requirements for Work) (Confined Spaces and Spaces having Explosive Atmospheres) Regulations shall be abided by whenever works are being carried out by the contractor in confined spaces. The Contracting Authority has its own tunnel construction and tunnel access SOPs which shall be handed by the responsible person as applicable upon contract award together with **FRM 042 (DOC 2) - Contractor's Briefing & Employee Training**. The titles of these SOPs are listed hereunder:
- SOP-051 - Tunnel Minimum Safety Requirements
  - SOP-052 - Tunnel Construction Safety Procedure
  - SOP-053 - Control Entry to HV Cable Tunnels

### ***Article 15: Scope of the Services***

- 15.1** The scope of the services is defined in Section 3 of the published tender document (Contracting Authority's Requirements/Terms of Reference)

### ***Article 16: Personnel and Equipment***

- 16.1** Sub-article 16.1 is not applicable to this Contract.
- 16.4** As per General Conditions.
- 16.6** The staff and workmen employed by the Contractor must be sufficient in number, and each must have the qualifications necessary to ensure due progress and satisfactory execution of the works. The Contractor shall immediately replace all persons who are indicated by the Project Manager to be hampering the proper execution of the works, stating the reasons in a letter. The Contractor shall make his own arrangements for the engagement of all staff and labour. He shall comply with all the relevant labour laws applying to his employees, shall duly pay them and afford them all their legal rights.
- 16.7** The equipment which the Contractor has on site shall be deemed to be there for the purpose of carrying out the project. The Contractor shall not be entitled to remove it without the written consent of the Project Manager unless he shows that the said equipment is no longer required for the performance of the project.
- 16.8** The Contractor shall provide such protection and security, as he may consider necessary to safeguard the materials and stores in the areas allocated to him, including measures to safeguard against mechanical damage and corrosion. The Contracting Authority will not be held responsible for any loss or damage which may occur during the execution of the Contract until the Contractor evacuates the site.

### ***Article 18: Execution of the Contract***

- 18.1** The contract shall commence on the date when a valid performance guarantee is received by the Contracting Authority and the contract is signed by both Parties. The Contracting Authority shall propose a date for a kick-off meeting which will be held between the Contractor and Enemalta.
- 18.2** The time-limits for delivery, installation, and commissioning of the 60MW Power Plant at Delimara Power Station shall be 13 weeks from the commencement of the contract (Contract Erection

Term). The lease agreement shall be for twenty-seven (27 months from commissioning date (Contract Operation Term).

After expiry of the Contract, including any extensions, the Contractor shall, within four (4) weeks, dismantle all plant and equipment and return the site/s to the Contracting Authority in the same condition that it/they was/were handed over in.

- 18.2.1** Within two (2) weeks of Commencement Date, the Contractor shall provide a detailed programme of works reflecting the deadlines stipulated in the Contract. The Contractor shall utilise a project management planning software package that uses a “Critical Path Analysis” method to calculate the programme of works. The programme of works is to be submitted to the Project Manager in both hard and electronic formats, the electronic format must be in native software format, as well as PDF.

Should the Contractor wish to utilise a software package that is not readily available, he must confirm that the output of the said software will be compatible and 100% transferable to MS Projects or MS Excel software.

This programme shall be subject to the approval of the Project Manager. Approval of the programme by the Project Manager shall not relieve the Contractor of any of his obligations under the contract.

The programme shall give the appropriate level of detail for each stage of the contract, clearly indicating any restraints. The programme shall include, as a minimum:

- a) the order in which the Contractor proposes to carry out the works;
- b) the deadlines for submission and approval of the drawings;
- c) a general description of the methods which the Contractor proposes to adopt for carrying out the project; and
- d) a Gantt chart showing clearly the order in which the Contractor proposes to carry out the project with the appropriate level of detail for each stage of the work including:
  - i) the deadlines for submission and approval of the drawings;
  - ii) the procurement of long lead equipment and materials;
  - iii) the manufacturing of equipment, including testing of the equipment at factory;
  - iv) inspection of major items of plant and equipment;
  - v) the delivery of material and equipment;
  - vi) the activities for the installation, testing and commissioning of the equipment.

- 18.2.2** If at any time during the execution of the Contract it is deemed necessary to modify the approved chart, the Contractor shall inform the Contracting Authority and submit a modified Gantt chart for approval. Such approval is not to be deemed to be consent to any amendment of the completion date stated in the Schedule.

- 18.2.3** At regular intervals after approval of the Gantt chart referred to above, the Contractor shall submit to the Contracting Authority written detailed progress reports, indicating the stage reached in the design, material procurement, delivery, erection, testing and commissioning of all components of plant.

- 18.3** The Contract Operation Year shall be the twelve (12) Calendar Month period commencing at 00:00 hours on 1 January and ending at 24:00 hours on 31 December of the same Calendar Year, provided that the first Contract Operation Year shall commence at 00:00 hours on the Power Plant

Commissioning Date and shall end at 24:00 hours on the following 31 December, and the last Contract Operation Year shall end on the Contract Termination Date.

- 18.4 The Contracting Authority shall normally issue day-ahead hourly dispatch instructions showing the hourly MW and MVAR required from the Power Plant. The reactive power may be directly represented as MVAR or a p.f. of MW dispatched.

In the event of an emergency situation arising after the Contracting Authority had already issued the dispatch instruction for the day, the Contracting Authority may issue an immediate request for the Power Plant to provide the requested power. In such a situation, the first 'emergency' instruction shall be verbal followed immediately by a written instruction modifying the day-ahead dispatch instruction.

The Contractor shall deliver the power requested for the time requested by the Contracting Authority.

### ***Article 19: Delays in Execution***

- 19.1 If the Contractor fails under his own responsibility to deliver any or all of the goods or perform the services within the time limit(s) specified in the contract, the Contracting Authority shall, without formal notice and without prejudice to its other remedies under the contract, be entitled, for every day which shall elapse between the expiry of the contractual period and the actual date of completion, to liquidated damages.
- 19.2 The liquidated damages for failure by the Contractor under his own responsibility to deliver and commission the Power Plant within the time limit(s) specified in the contract, shall be in the form of a reduction of the Operation Term, i.e. reduction of the 27 months lease period until the Power Plant is commissioned and ready to deliver electrical power. The Operation Term shall be reduced by the number of days of delay.
- 19.2.1 The Contractor shall also be penalized if he fails to deliver the Power requested by the Contracting Authority. See Appendix 1 Clause 2.
- 19.2.2 If at the expiry of the Contract and any extensions, the Contractor does not dismantle and remove all plant and equipment used for the Contract within the time limits set in 18.2, the Contracting Authority may impose a daily fine of €1000 for each day that shall elapse from the deadline given in clause 18.2 until the site is cleared.
- 19.6 Upon determining that a delay in the installation and commissioning of the plant might occur, the Contractor shall notify the Project Manager of his intention to make a request for extension of the period of performance to which he considers himself entitled and, save where otherwise agreed between the Contractor and the Project Manager, within 5 working days provide the Project Manager with comprehensive details so that the request may be considered.
- 19.7 Save where otherwise agreed between the Contractor and the Project Manager, within 10 working days the Project Manager shall, by written notice to the Contractor, after due consultation with the Contracting Authority and, where appropriate, the Contractor, grant such extension of the period of performance as may be justified, either prospectively or retrospectively, or inform the Contractor that he is not entitled to an extension.

### ***Article 20: Modification of the Contract***

- 20.4.1 The Power Plant dispatched hours shown in the Financial Schedule are only indicative. The Contracting Authority reserves the right not to order any of the quantities shown and would not, by doing so, be held liable to any damages or other costs whatsoever.

- 20.5** The repetition of services shall be capped at 30% of the contract value. The prerogative to order such repetition of services shall be vested in the Contracting Authority, and, if not used, the Contractor shall have no claim against Government or the Contracting Authority.

This provision is being made to cater for any unforeseen increase in the requirements of the tender indicated in the Financial Offer form.

- 20.6** The additional services (i.e. new services not included in the original tender) shall be capped at 20% of the contract value. The prerogative to order such additional services shall vest in the Contracting Authority and if not used the Contractor shall have no claim against Government or the Contracting Authority.

Provided that before ordering additional services, the Project Manager shall obtain the approval of the Head of the Contracting Authority for the rates to be used.

This provision is being made for additional services not included in the project initially considered or in the contract first concluded but which have, through unforeseen circumstances, become necessary for the performance of the service described therein, and the additional services cannot be technically or economically separated from the original contract without major inconvenience to the contracting authority, or when such additional services, although separable from the performance of the original contract, are strictly necessary for its completion.

### ***Article 21: Working Hours***

- 21.1.1** Further to the General Conditions, the Contractor shall ensure that he provides electrical power as and when requested and the Contractor's operations personnel are on site on a 24/7 basis.

### ***Article 26: Payments and Interest on Late Payment***

- 26.1** Payments shall be authorized by the Contracting Authority and paid by the Contracting Authority.

Payments shall be made according to the Payment Structure in Appendix 1.

- 26.1.1** The Contractor shall submit an invoice after the successful delivery, installation, and commissioning of the Power Plant - the Plant Mobilisation and Installation Payment (see Appendix 1).

Thereafter, the Contractor shall submit invoices covering the services rendered during the latest Billing Period - the Capacity Availability Payment and the Energy Delivery Payment (see Appendix 1).

The final invoice shall cover the dismantling of the Power Plant following the expiry of the Contract - the Plant Demobilisation Payment (see Appendix 1).

The invoices presented shall be subject to certification by the Contracting Authority.

- 26.1.2** Billing Period means each period of one Calendar Month provided that:

- (a) the first Billing Period shall commence on the Power Plant Commissioning Date and end on the last day of the Calendar Month in which such event occurs; and
- (b) the final Billing Period shall commence on the first day of the Calendar Month in which the Contract Termination Date occurs and end on the Contract Termination Date.

- 26.1.3** Payments shall be invoiced on a monthly basis. Invoices related to each Billing Period M shall be submitted by the Contractor to the Contracting Authority by the last day of the following Calendar Month M+1, and payment shall be submitted by the Contracting Authority to the Contractor within thirty (30) days from receipt of invoice.

- 26.3** Once the deadline down in 26.1.3 has expired, the Contractor may, within two months of late payment, claim late-payment interest at the rediscount rate applied by the issuing institution of the country of the Contracting Authority on the first day of the month in which the deadline expired, plus two percentage points (2%). The late payment interest shall apply to the time which elapses between the date of the payment deadline (exclusive) and the date on which the Contracting Authority's account is debited (inclusive).
- 26.8** The payment obligations of the Contracting Authority under this Contract shall cease at most 18 months after the end of the period of execution of the tasks, unless the Contract is terminated in accordance with Article 34.1 of the General Conditions.

### ***Article 27: Financial Guarantee***

Article 27 of the General Conditions is not applicable to this Contract.

### ***Article 30: Revision of Prices***

- 30.1** Subject to the provisions of Article 20 of the General Conditions, the global price of a global price contract and the fee rates of a fee-based contract shall not be revised. Article 1639 of the Civil Code shall not apply and cannot be availed of by the Contractor.
- 30.1.1** Inflation is taken into consideration in the payment structure as indicated in Appendices 1 and 4.
- 30.2.1** The Contractor shall be deemed to have satisfied himself before submitting his tender as to the correctness and sufficiency of the tender and to have taken account of all that is required for the full and proper performance of the contract and to have included in his rates and prices all costs related to the supplies, in particular:
- a) the costs of transport;
  - b) the costs of handling, packing, loading, unloading, transit, delivery, unpacking, checking, storage, insurance and other administrative costs in connection with the supplies. The packaging shall be the property of the Contractor.
  - c) the cost of documents relating to the supplies where such documents are required by the Contracting Authority.
  - d) performance and supervision of on-site installation, testing, commissioning, operation and, upon expiry of the contract, dismantling and transporting away from site of the delivered supplies.
  - e) furnishing of tools required for assembly and/or maintenance of the delivered supplies.
  - f) supervision or maintenance and/or repair of the supplies, for in the whole duration of the contract, with the stipulation that this service shall not release the Contractor from any warranty obligations under the contract.
  - g) the cost of any security measures, including the erection of perimeter walls, security fencing, services of security personnel etc. that may be required by the Contractor.
  - h) the cost of temporary buildings as may be necessary for office accommodation for his site staff during the execution of the contract.
  - i) the collection and proper disposal of all waste generated by the project, including during erection, operation, and dismantling.
  - j) The cost of any forms of communication used by the contractor in all the stages of the project.
  - k) The cost of ablution facilities and related disposal of effluent emanating from these ablution facilities
- 30.2.2** The contract shall include the whole of the works that are described in or implied by the tender document. All matters omitted from the tender document, which may be inferred to be obviously

necessary for the efficiency, stability, regulatory permitting and completion of the works, shall be deemed to be included in the contract price.

Works shown upon the drawings and not mentioned or described in the specification or not discussed during the negotiating phase and works described in the specification and not shown on the drawings will nevertheless be held to be included in this contract and their execution shall be covered by the contract price in the same manner as if they had been expressly shown upon the drawings and described in the specification.

The Contracting Authority shall set out a datum line from which the Contractor on his own responsibility is to duly set out all other works, but with the approval and to the satisfaction of the Contracting Authority and according to the drawings supplied or approved by the Contracting Authority.

Unless otherwise specified, the contractor is to supply the whole of the labour and equipment required for the completion of all the works and execution of this contract.

### ***Article 33: Suspension***

- 33.1 Further to the General Conditions, during the period of suspension, the Contractor shall take such protective measures as may be necessary to safeguard the works, plant, equipment and site against any deterioration, loss or damage. Any cost of such measures shall be borne by the Contractor.

### ***Article 35: Termination by the Contractor***

- 35.3 In the event of such termination, the Contracting Authority shall pay the Contractor for any loss or injury the Contractor may have suffered. Such additional payment may not be such that the total payments exceed the contract value specified in the contract.

### ***Article 39: Dangerous Chemical Handling and Transportation***

- 39.1 Chemicals must be REACH registered in accordance to S.L.427.66 Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) (Implementation) Regulations and also comply to warnings or information as issued by the Committee as stated in S.L.427.67 Registration, Evaluation, Authorization and Restriction of Chemicals Enforcement (E-REACH) Committee Regulations and be compliant to S.L. 427.69 Classification, Labelling and Packaging of Substances and Mixtures (CLP) (Implementation) Regulations.
- 39.2 The Tenderer must submit the REACH registration number and details of the manufacturer established in the EU or the EU importer of the chemical/s being purchased. If the chemical is on the pre-registration list and the supplier does not have a registration number, then a confirmation letter that the chemical is in the process of being registered must be provided together with any necessary documentation.
- 39.3 The Tenderer must submit the SDS with all the contact details of the supplier and an email address of the competent person responsible for the safety data sheet. The supplier can be the manufacturer, the distributor or the importer. The person responsible should be appointed by the supplier who, according to the definition of a “supplier” under REACH, is located in one of the Members State.
- 39.4 The supplier shall forward to Enemalta the latest revision of the Safety Data Sheet each time a new revision is issued and with every purchase / delivery of goods. If no revisions are issued within a period of five (5) years the supplier is obliged to confirm with the manufacturer that no updated revisions have been issued within this period and communicate this information to Enemalta.

- 39.5** The Contractor or his sub-contractors, who in the course of executing a contract are required to handle, store, transport or dispose of dangerous chemicals (including oil), shall do this according to the Environmental Management System of the Contracting Authority and follow the standard operating procedures and practices implemented at Enemalta plc as per SOP CNT 44 - Oil and Chemical Storage, Handling and Spill Control for Contractors, available on the Enemalta website on the below link.

[EMS/SMS documents - Enemalta](#)

***Article 40: Handling, Transportation and Maintenance of Equipment Containing HCFCs and Fluorinated Gases (F-Gases)***

- 40.1** The Contractor must take all the necessary precautions to ensure that there are no leakages of gases when handling, transporting and/or carrying out maintenance on equipment containing HCFCs, or fluorinated gases (F-gases). Tests should be carried out to confirm that there are no leakages.
- 40.2** When handling, transporting or maintaining equipment containing such gases the contractor or his sub-contractors must abide by the legal obligations as stipulated by the following EU and Local legislation:
- Regulation (EU) 517/2014 of the European Parliament and of the Council of 16 April 2014 on fluorinated greenhouse gases and repealing Regulation (EC) No 842/2006

Examples of such fluorinated gases being R407c, R410a and SF<sub>6</sub>

- Commission Regulation (EC) No 308/2008 of 2 April 2008 establishing, pursuant to Regulation (EC) No 842/2006 of the European Parliament and of the Council, the format for notification of the training and certification programmes of the Member States
- S.L. 549.55 (LN 93/2010) Certain Fluorinated Greenhouse Gases Regulations

***Article 41: Contamination of Soil and Water***

- 41.1** The Contractor shall take all the necessary measures to avoid any problem of contamination of ground, surface water or groundwater.

The Contractor shall ensure that all spillages/leakages etc. of hazardous liquids are contained within the sites and not allowed to:

- a. contaminate the underlying ground (if this is the case, then the Contractor is to remove any contaminated soil and dispose of it accordingly - all costs associated with this removal/disposal are to be borne by the Contractor; and
- b. reach the existing site stormwater system, as this leads directly to the sea - any spillages to the sea are to be collected immediately, and the cost of such collection and disposal of collected contaminants is to be borne by the Contractor.

In view of the above, all items of plant that contain hazardous liquids shall be equipped with a means of containment. The containment shall be sized to accept 110% of the amount of liquid contained in the item of plant. If a number of items of plant share the same containment, then the containment shall be sized to contain 110% of the amount of liquid contained in the single largest item of plant of the group being contained.

- 41.2** Substances potentially hazardous to humans or the environment (e.g., fuels, lubricants, paints, solvents, etc.) shall be kept in closed and sealed containers or covered with shelters to protect the

chemicals from the weather and thus from coming into contact with rainwater and extreme temperatures.

- 41.3 Any runoff or spills shall not contaminate the soil or water. Any spillage shall be collected, and any waste generated shall be disposed of as required by law.

#### **Article 42: Waste Management**

- 42.1 The Contractor is to designate a person from his staff to be responsible for the management of waste generated from the execution of the contract. The name of this person together with his/her ID number shall be communicated to the Supervisor 15 days from the Commencement Order.

- 42.2 The Contractor is responsible for the disposal of any waste generated by the Contractor in executing the Contract.

The Contractor shall dispose of any waste generated as per the Environmental Management System adopted by Enemalta. Any charges incurred by the Contractor for not separating properly the waste generated by his facilities shall be borne by the Contractor.

- 42.3 The Contractor or his sub-contractors, who in the course of executing a contract are required to dispose of waste generated through their activities, shall follow the practices as stipulated by the following legislation for Waste (where applicable):

- S.L. 549.63 Waste Regulations
- S.L. 549.45 (LN 106/2007) Waste Management (Activity Registration) Regulations
- S.L. 549.65 Waste Management (Shipments of Waste) Regulations
- S.L. 549.43 Waste Management (Packaging and Packaging Waste) Regulations
- S.L. 549.89 Waste Management (Electrical and Electronic Equipment) Regulations
- S.L. 549.36 Waste Management (End of Life Vehicles)
- S.L. 549.54 Waste Management (Waste Batteries and Accumulators) Regulations
- any other legislation related to waste that might be applicable at the time of the execution of the contract
- any instruction that might be issued by the local authority responsible for waste during the execution of the contract and follow the standard operating procedures and practices for waste according to the Environmental Management System as per SOP CNT 45 - Waste Management Procedure for Contractors, available on the Enemalta website on the below link:

[EMS/SMS documents - Enemalta](#)

- 42.4 If the Contractor or his sub-contractors are producers of packaging or packaging material, they have an obligation under the Packaging Regulation S.L. 549.43 to comply with the regulation and to recover and recycle all the packaging waste as per Regulation 13 of the Packaging Regulation.

- 42.5 If the Contractor or his sub-contractors are producers of waste from electrical and electronic equipment (WEEE), they have an obligation under the WEEE Regulation S.L. 549.89 to comply with the regulation and to recover and recycle all the WEEE separately as per Regulation 6 of the WEEE Regulation.

- 42.6 The Contractor is responsible for the disposal of any waste generated directly through the execution of the Contract.

- 42.7 The Contractor must be either self-compliant or registered in the packaging waste recovery scheme as per Waste Management (Packaging and Packaging Waste) Regulations S.L. 549.43.
- 42.8 The Contractor must be either self-compliant or registered in the WEEE compliance scheme as per Waste Management (Electrical and Electronic Equipment) Regulations S.L. 549.89.
- 42.9 The offered plant shall be subject to Directive 1999/31/EC (on the landfill of waste) as amended by Directive 2018/850.
- 42.10 If waste oils are produced by the offered plant, these shall not be directly disposed of. The Contractor shall make all the proper arrangements, as required by the Environment and Resources Authority (ERA), for the proper disposal of any waste oils produced by the Power Plant.

The Contractor is referred to the Environment and Resources Authority on:

[ERA - Environment and Resources Authority](#)

### ***Article 43: Certification of Vehicles***

- 43.1 The vehicles and the drivers used in executing contracts which are in any way involved in the transportation of dangerous or hazardous goods must be licensed as required by EU and local legislation. Drivers carrying hazardous goods must have a valid Dangerous Goods Driver Training (DGDT) Certificate issued by Transport Malta as per S.L.65.22 Motor Vehicles (Carriage of Dangerous Goods by Road). Valid Certificates for vehicles and drivers shall be provided to the Project Manager 15 days from the Commencement Order.

### ***Article 44: Environmental Audits***

- 44.1 Enemalta plc reserves the right to carry out environmental audits in order to ensure that the Contractor and his sub-contractors are carrying out their activities in compliance with the requirements laid down in the Enemalta Environmental Management System.

### ***Article 45: Environmental Liability***

- 45.1 Enemalta plc reserves the right to withhold payments and/or claim compensation if damages or injury results from the violation of environmental regulations. The amount is established according to S.L.549.97 Prevention and Remedying of Environmental Damage Regulations implementing provision of Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage.
- 45.2 The Contractor shall ensure that ALL services provided shall comply with the Local Legislation in force at the time the service is provided.

### ***Article 46: Briefing of Contractor and Training of Contractor's Employees***

- 46.1 A responsible officer/s representing the section which will be making use of the contractor's services will explain and forward a copy of the following documents to the Contractor or his/her Representative:
- **Briefing Document for Contractors and Visitors** (specific for the sections of MPS, DPS or Distribution with reference numbers MAN 001 (DOC 11), MAN 002 (DOC 12) or MAN 003 (DOC 13) respectively, available on the Enemalta website on the below link.

<https://www.enemalta.com.mt/emssms-documents>

- the relevant clauses from SOP 085 (DOC 1) - **Tender Clauses related to EMS** which are applicable for the services being rendered by the contractor (these clauses are also included in the Tender document)
- any relevant EMS procedures

The responsible officer/s will oblige the Contractor (or his/her Representative) to train his/her employees working on the contract, on the contents of environmental related documents. This training may be carried out in conjunction with Enemalta plc personnel depending on the nature and duration of the work. The Contractor (or his/her Representative) will then sign FRM 042 (DOC 2) - **Contractor's Briefing & Employee Training** the documents confirming that they have understood the contents of these documents and that they will deliver the relevant training to their employees. A copy of FRM 042 (DOC 2) is available on the Enemalta website on the below link:

<https://www.enemalta.com.mt/emssms-documents>

#### ***Article 47: Access to the Site***

- 47.1 The Contracting Authority shall, in due time and in conformity with the progress of the project, place the site and access thereto at the disposal of the Contractor in accordance with the programme of performance referred to in the General Conditions. The Contractor shall afford other persons concerned every reasonable opportunity to carry out their work, or as required by administrative orders.
- 47.2 Land procured for the Contractor by the Contracting Authority shall not be used by the Contractor for purposes other than the performance of the contract.
- 47.3 The Contractor shall keep any premises placed at his disposal in good condition while he is in occupation. He shall restore them to their original state on completion of the contract, taking into account normal wear and tear.
- 47.4 The Contractor shall not be entitled to any payment for improvements resulting from work carried out on his own initiative.

#### ***Article 48: Superintendence of the Works***

- 48.1 The Contractor shall appoint a Site Manager to superintend the works. Such appointment shall be submitted to the Project Manager for approval. The approval may be withdrawn at any time. Should the Project Manager refuse to approve, or withdraw approval of the appointment, he shall set out the grounds on which his decision is based, and the Contractor shall submit an alternative appointment without delay. The address of the Site Manager shall be deemed to be the address for service given by the Contractor.
- 48.2 If the Project Manager withdraws his approval of the Contractor's Representative, the Contractor shall, as soon as is practicable, after receiving notice of such withdrawal, remove the Representative from the project and replace him with another Representative approved by the Project Manager.
- 48.3 The Contractor's Representative shall have full authority to make any decision necessary for the execution of the project and to receive and carry out administrative orders.

- 48.4** In any event, the Contractor shall be responsible for ensuring that the works are carried out satisfactorily, including ensuring that the specifications and administrative orders are adhered to by his own employees and by his subcontractors and their employees.

***Article 49: Electrical Power Declared, Imported and Exported***

- 49.1** The Contractor shall submit on a daily basis by not later than 08:00 the hourly Declared MW Available of the Power Plant for the next day to the Contracting Authority.
- 49.2** The Contracting Authority shall provide on a daily basis, as agreed with the Contractor, the hourly fiscal meter readings for Import and Export of electricity as recorded by the Contracting Authority's fiscal meters, referred to in Appendices 1 and 3.

***Article 50: Data Protection***

- 50.1** Along with the contract, the Contractor shall also sign the Privacy Notice for Entities exchanging information with Enemalta plc. A copy of this Privacy Notice is available on the Enemalta plc website at the link:  
<https://www.enemalta.com.mt/uncategorised/privacy-notice-entities-exchanging-information-enemalta-plc-2/>
- 50.2** The Contractor and its staff shall maintain professional secrecy, for the duration of the contract and after completion thereof. In this connection, neither the Contractor nor the personnel employed or engaged by it shall at any time communicate to any person or entity any Personal Data pertaining to any Enemalta plc Data Subject, provided to them or accessed or discovered by them, or make public any such Personal Data. In such case, the Contractor would be liable of a Personal Data breach as per Applicable Data Protection Laws. Moreover, any Personal Data pertaining to Enemalta plc's Data Subjects (including but not limited company representatives and employees) which may be processed by the Contractor as part of this contract is to be processed exclusively for the purposes of this contract, in line with Applicable Data Protection Laws.

“Applicable Data Protection Laws” shall mean the relevant data protection and privacy laws, including but not limited to, the General Data Protection Regulation (EU) 2016/679, and the Data Protection Act, Chapter 586 of the Laws of Malta and subsidiary legislation thereto, as may be amended from time to time.

## SECTION 3 -SPECIFICATIONS/TERMS OF REFERENCE (Note 3)

### 1.0 Introduction

#### 1.1 *Scope of Project*

The Contracting Authority is seeking the lease and operation of a diesel-fuelled Power Plant, which in total shall export to the Enemalta grid 60MW of electrical power at Site Ambient Conditions. This Power Plant shall be dispatched as backup in the event that the Contracting Authority experiences a shortfall in its sources of supply to the National Electricity Grid to meet demand.

#### 1.2 *Existing Setup*

The Contracting Authority is the Distribution System Operator for the Maltese Islands that are situated in the centre of the Mediterranean Sea.

The National Grid sources its electricity supply from:

1. A 200MW alternating current subsea interconnector connected to the electricity grid on the island of Sicily. Another 200MW alternating current subsea interconnector is expected to be commissioned in Q4 of 2026.
2. A power station located at the south of the island of Malta, known as the Delimara Power Station. This power station has 350MW of continuous generating plant and 140MW of emergency plant.
3. A power station located in the harbour area, known as the Marsa Power Station, that used to house the old power station in Malta, retains an additional 35MW of emergency plant.

#### 1.3 *New Emergency Plant*

Due to the recent steep increase in electricity demand on the Maltese Islands, and to ensure continued supply of electricity to its customers, the Contracting Authority is seeking to install a temporary emergency Power Plant, which shall be maintained available on standby until the second subsea interconnector to Sicily is commissioned.

The Power Plant shall be installed at the Delimara Power Station in the areas identified as Site 1 and Site 2 in drawing DPS-XZ-209.

The Power Plant shall be connected to the Enemalta electricity grid via two 33kV connections as detailed in section 6.2.

The type and choice of these plant(s) has been left to the prospective Contractor, with the prerequisites being that the Power Plant shall provide 60MW of electrical power to the grid under Site worst-case conditions as indicated in Clause 2.2 (Site Ambient Conditions), with the Plant occupying no more than the indicated Sites space available.

The Power Plant shall be fuelled by diesel (gasoil) which will be made available at the sites as detailed in section 5.1.

### 2.0 General Issues

## 2.1 Sites Available for Power Plant

The temporary Power Plant shall be installed in one or two sites, as necessary, at the Delimara Power Station. The sites have the following geographical coordinates:

Site 1:  
Latitude: 35° 50'02"  
Longitude: 14° 33'24"

Site 2:  
Latitude: 35° 50'02"  
Longitude: 14° 33'24"

The designated sites for the installation of the temporary generating plant at Delimara Power Station are shown in drawing DPS-XZ-209 and are marked as 'Site 1' and 'Site 2'.

Site 1 measures 61m x 60m.

Site 2 measures 70m x 50m (with limitations - see Clause 6.5.1).

### 2.1.1 Delimara Power Station Site 1

The Site 1 at the Delimara Power Station is accessible by two roads, one on each side of the site. The roads are shown in green in drawing DPS-XZ-209. No erection of plant or excavations are allowed in these roads due to the presence of live underground services buried under these roads, and due to the fact that these are access roads to other plant.

The road between the two access roads shown in red can be used/occupied by the temporary plant. It would be preferable if the existing surface of the road is preserved and may be recovered after the temporary plant is removed. The road shall not be excavated due to the presence of underground services buried there.

### 2.1.2 Delimara Power Station Site 2

The Site 2 at the Delimara Power Station is surrounded by roads, shown in green in drawing DPS-XZ-209. No erection of plant or excavations shall be allowed in these roads due to the presence of live underground services buried under these roads, and due to fact that these are access roads to other plant.

### 2.1.2 Access by Sea

Delimara Power Station is also accessible by sea. The Station has an integrated quay where heavy equipment can be unloaded. The draft available for ships/barges is 9.0m. The said quay (shown in cyan in drawing DPS-XZ-209) is linked by the Station's internal road network to the two sites mentioned in Clause 2.2.1 and Clause 2.2.2 as shown in magenta in drawing DPS-XZ-209.

## 2.2 Site Ambient Conditions

	Minimum	Average	Summer Conditions	Maximum
Ambient Shade Air Temperature	2°C	24°C	36°C	45°C
Sea Temperature	15°C	21°C	29°C	32°C

Humidity	30%	65%	70%	95%
Wind speed	0km/hr	18km/hr	12km/hr	73km/hr (gust speed=150km/hr)

It is to be noted that, as regards the 'Maximum' figures, these are to be considered separately, since these values do not all occur at the same time.

The Delimara Power Station site is situated at 4.0m above mean sea level and climate is humid semi-tropical.

Annual rainfall is approximately 625mm per annum, with possible heavy rainfall during autumn.

Direct solar radiation at the is maximum 1000W/m<sup>2</sup>.

The Delimara Power Station Site is subject to periods where the atmosphere is laden with dust and/or sea spray under certain wind conditions.

The sites are subject to the presence of vermin.

Peak Ground Acceleration (P.G.A.) is to be taken as Moderate Hazard 0.24g (X,Y), 0.12g (Z).

### **2.2.1 Exception to Standards**

Most of the standards used in the design of power generation and power transport equipment indicate the maximum ambient temperature as 40°C. However, the Tenderer shall note that during the summer season in the Maltese Islands, this 40°C figure is sometimes exceeded. Ambient temperatures of 45°C have been registered. Due to this, where appropriate and unless indicated otherwise, the Tenderer shall consider the figure of 45°C as the maximum ambient temperature in the designs of his equipment.

In designing the Power Plant, the Contractor shall ensure that the total of 60MW being requested in this specification is delivered to the Contracting Authority at the connection points at ambient temperatures of up to 45°C.

### **2.3 Storage Areas**

The Contracting Authority may provide an unused area of the Delimara Power Station for the storage of his plant during the erection of the plants. Once the plants are erected, the Contractor is to clear out the site used for the temporary handling of the plants and return the site to the Contracting Authority in the same state that they were handed over. This same area shall not be available during the dismantling of the plant.

The Contractor is to unload and store the materials in the area which will be allocated to him by the Contracting Authority.

### **2.4 Site Services**

#### **2.4.1 Living Accommodation**

No living accommodation shall be provided by the Contracting Authority for use by any of the Contractor's staff during the execution of the contract. If needed, adequate accommodation is available in Malta.

#### **2.4.2 Office Accommodation**

The Contractor is to provide such temporary buildings as may be necessary for office accommodation for his site staff during the execution of the Contract.

### **2.4.3 Ablution Facilities**

The Contractor is to provide all the ablution facilities required by the personnel operating and maintaining the Power Plant. This shall include the collection and disposal of any foul water generated by such facilities.

The Contracting Authority cannot provide any connections to the foul water system at the sites. The Contractor is to make adequate provisions to collect and dispose of any foul water that is generated by his ablution facilities.

### **2.4.4 Water Supply**

The Contracting Authority shall make available to the Contractor a supply of potable water on Site 1 and Site 2 only. The supply of such water shall be metered and charged to the Contractor at the prevailing rates. The Contractor is required to ensure that no wastage of such water occurs.

### **2.4.5 Temporary Electricity Supply**

Temporary electricity supplies of limited capacity shall be made available free of charge for erection/dismantling purposes. The Contractor is to ensure that no unnecessary use is made of this service.

The Contractor shall be responsible for providing and maintaining any temporary electrical installation he may require. Any such installation shall be carried out in compliance with applicable standards and maintained in a sound condition. The Contractor shall take all reasonable precautions to ensure the safety of every person on site. The Contracting Authority shall require the disconnection or alteration of any part, which it considers to be dangerous.

As soon as any part or the whole of a Contractor's temporary installation is no longer required for the execution of the Contract, the Contractor shall disconnect and remove same to the satisfaction of the Contracting Authority. The whole of such equipment, up to the connection point provided by the Contracting Authority, shall remain the property of the Contractor at the termination of the contract.

The systems of the site electrical supply shall be:

400V, 3-phase, 4-wire, 50Hz, 100A max.  
230V, 1-phase, 50Hz, 40A max.

### **2.4.6 Communication Facilities**

The Contractor shall provide all the communication facilities that he requires for proper communication both with the Contracting Authority and the outside world including any overseas communications required. This shall include but not be limited to:

- a. mobile phone communication;
- b. internet communication; and
- c. radio communication.

## **3.0 General Requirements and Constraints**

### **3.1 General Criteria in Design**

#### **3.1.1 General**

The Contractor shall be responsible to perform his own basic and detailed design and engineering, including studies, calculations, field investigations, preparation of drawings, specifications, procedures, construction drawings as necessary for the fabrication, testing, construction, erection, commissioning, starting up, licensing/permitting, site testing of the whole plant, in accordance with the laws and regulations, with this specification and referenced standards, and with good engineering practice.

#### **3.1.2 Standards**

The design, construction, materials and workmanship of the plant to be supplied under this Contract shall comply with applicable local and European codes and standards. Other internationally acceptable standards that ensure equivalent, or higher, quality may be considered. It will be the responsibility of the respective Tenderers to prove that the standards, brands or labels they quoted are equivalent to the standards requested by the Contracting Authority.

In all cases the Tenderer shall state at offer stage the standards to which the Power Plant conforms and shall supply copies of these relevant standards specifications in the English language, except in the case of ISO, IEC, EN, BS and HD.

#### **3.1.3 Compliance with Statutory Regulations**

The works and all plant, equipment and materials forming part of this Contract shall comply in all respects with any relevant local and EU statutory regulations, By-Laws and Orders.

All necessary precautions, including warning signs, must be undertaken and adopted to ensure the safety of personnel directly engaged on this Contract, or of those persons who, in the normal course of their occupation, are required to utilise temporary works erected by the Contractor, or who frequent the working area in the normal course of their duties. Such precautions and temporary works are subject to approval by the local Occupational Health and Safety Authority who will have the right to inspect the works and issue instructions as necessary.

##### **3.1.3.1 Gaseous Emissions Regulations**

In view that this Power Plant shall be operated in emergencies only, and in view that the Contracting Authority does not envisage that this Plant shall be dispatched for more than 500 hours per year, this Power Plant has been exempted from gaseous emissions limits.

However, the Contractor shall ensure that the Power Plant is set up and adjusted such that the gaseous emissions from the said Power Plant are kept to the minimum possible.

##### **3.1.3.2 Noise Emissions Regulations**

The offered gensets shall have a noise emission limit of 81dB(A) at 7.0m from genset enclosure.

##### **3.1.3.3 Construction Site Management Regulations**

Construction Site Management Regulations are presented in S.L.623.08 of the Laws of Malta. The scope of these regulations is to limit environmental degradation through appropriate construction management

practices that cause the least nuisance to adjacent properties and users, to minimise the risk of injury to third parties, and as much as possible to reduce harm to the environment. Therefore, the Contractor shall abide with these Regulations for the duration of the construction, installation, and dismantling stages of the Contract.

### **3.1.4 Language**

The Contractor shall ensure that his personnel that are on site to operate and maintain the Power Plant shall be capable of communicating with the Contracting Authority's personnel either in the Maltese or English language without difficulty. Personnel who are not capable to communicate in these languages shall not be allowed on site by the Contracting Authority.

## **3.2 Execution of Works**

### **3.2.1 Erection and Checking at Site**

All work at the sites shall be carried out in such a manner as not to obstruct other operations at the Delimara Power Station.

The carrying out of all work included in the Contract shall be supervised by the Key Experts engaged by the Contractor.

The Contractor shall keep the sites, on which he erects and stores plant, clean, removing all waste material resulting from the works, as it accumulates and as reasonably directed. On Termination of the Contract, the sites shall be left clean and tidy to the satisfaction of the Contracting Authority. Any damage done to building, structures and plant or property belonging to the Contracting Authority shall be made good at the Contractor's expense.

The Contractor shall be responsible for satisfying himself as to the correctness of the electrical and mechanical connections to all plant supplied under the Contract before such plant is brought into commission.

During erection and commissioning, the Contractor shall provide all temporary scaffolding, ladders, and platforms with toe boards and handrails essential for proper access of workmen and inspectors, cover or rail off all dangerous openings or holes in floors and afford adequate protection against materials falling from a higher level on to personnel below.

### **3.2.2 Waste Management**

Malta employs a waste separation system for domestic and industrial waste. The Contractor is to abide by this waste separation system during the collection and disposal of his waste.

Details of this waste separation system can be obtained from Wasteserv on:

[Welcome to Wasteserv | Wasteserv Malta \(wsm.com.mt\)](http://wsm.com.mt)

The Contractor shall make arrangements for the collection and disposal of the waste generated by his facilities. Any charges incurred by the Contractor for not separating properly the waste generated by his facilities shall be borne by the Contractor.

### **3.2.3 Standard Operating Procedures**

The Contractor shall abide by the following Standard Operating Procedures (SOPs). The SOPs mentioned below are available at: [EMS/SMS documents - Enemalta](#)

- FRM 042: Contractors Briefing and Employee Training
- POL 004: Major Accident Prevention Policy (MAPP)
- MAN 008: DPS Visitors Safety Card
- SOP 044: Oil and Chemical Storage Handling and Spill control for contractors
- SOP 045: Waste Management Procedure for Contractors

### **3.3 Permitting**

Permits required for the installation and operation of the proposed Power Plant covered by this Tender are the following:

1. Development Permit: This permit is issued by the Planning Authority (PA) as the competent authority.
2. Integrated Pollution Prevention and Control (IPPC): These types of permits are issued by the Environmental and Resources Authority (ERA) as the competent authority.
3. Medium Combustion Plant Application: This application is received by the Environmental and Resources Authority (ERA) as the competent authority.
4. Generation License: This permit is issued by the Malta Resources Authority as the competent Authority.

The Contracting Authority shall be responsible for the discussions with the local Planning Authority. With regards to the Environmental and Resources Authority, where the IPPC permit is concerned, the Contracting Authority shall update its IPPC permit for Delimara Power Station to indicate the installation of the new Power Plant (which shall be operated by the Contractor), but it is up to the Contractor to apply and obtain a full IPPC Permit from the Environmental and Resources Authority to be able to operate the Plant.

It is solely the responsibility of the Contractor to obtain the other permits indicated above.

Any other permits required by the Laws of Malta, which are not mentioned in this section, and which are deemed as necessary for the installation and operation of the Power Plant shall be obtained by the Contractor. The Contracting Authority will assist the Contractor where possible.

Any fines or other penalties incurred by the Contractor for non-compliance with applicable Law or authorizations, permits and/or licences shall be the sole responsibility of the Contractor, without any right of recourse against the Contracting Authority.

#### **3.3.1 Development Permit**

The Contracting Authority shall be responsible for the submission of the necessary permitting application forms and procedures for the Power Plant, based on a number of assumptions and limited information. However, once the Contractor finalises the analysis, studies and design of the Power Plant, the proposed development shall be re-submitted for the review and approval of the Planning Authority in order to obtain the approval for the 'as-built' layout designed and installed by the Contractor.

The Contractor shall be expected to engage a Warranted Civil Engineer, in accordance with the Laws of Malta, to take over the responsibility of all permits issued in the name of the Contracting Authority as well

as the detailed civil engineering design and supervision. In this regard, a 'Change of Perit' form shall be filled and submitted to the Planning Authority together with a notification to any other concerned authority/entity.

All drawings and documentation available at the Contracting Authority's end relating to the development application (whether such application is still being processed or has been approved) shall be handed over to the Contractor for his perusal. The Contracting Authority shall assist the Contractor where possible.

Once the permit covering this Power Plant is issued, the Contractor's Warranted Civil Engineer shall submit a 'Commencement Notice' before the commencement of any site works to validate the permit and notify the Competent Authorities when the site works are expected to commence.

The conditions, as specified in any of the approved permits as well as any supporting documents, shall be observed.

The forms mentioned in this section can be obtained from the following website:

[Planning Authority \(pa.org.mt\)](http://pa.org.mt)

### **3.3.2 Integrated Pollution Prevention and Control (IPPC)**

Currently, the site of Delimara Power Station is covered by an IPPC permit with reference IP 0002/21. A variation of the current IPPC permit to indicate the addition of the new Power Plant needs to be submitted by the Contracting Authority. Details, specifications, and other information may need to be submitted by the Contractor to the Contracting Authority to assist with this process.

The current IPPC permit can be obtained from the following website:

<https://era.org.mt/topic/ippc-installations/?search=delimara>

### **3.3.3 Medium Combustion Plant Application (MCP)**

A Medium Combustion Plant (MCP) application covering all generating units is required prior to the commencement of operations. This permit shall be obtained by the Contractor. It is being made clear that the Contractor, as the operator of this new MCP, shall be responsible for the preparation, submission, and acquisition of this MCP permit, as required by the Competent Authority.

Applications to register a new MCP may be submitted through the online ERIS System, which may be accessed from this link:

[Landing \(eraportal.org.mt\)](http://eraportal.org.mt)

A methodology document containing important information and guidance on periodic monitoring from MCPs, what a monitoring method statement should contain, and how monitoring should be done, may be accessed through the following link:

[Methodology-for-Stack-Monitoring-from-MCPs.pdf \(era.org.mt\)](http://era.org.mt)

### **3.3.4 Generation Licence**

The Contractor shall have the sole responsibility to apply for and obtain the requisite Generation Licence to be granted by the Malta Resources Authority under the Electricity Market Regulations (SL 423.22) to operate the Power Plant.

## **4.0 Civil Engineering Specifications**

### **4.1 General Considerations**

Design, manufacturing, fabrication and construction shall meet all relevant Maltese regulations, norms and recommendations for buildings, materials and for construction work.

All construction work shall follow not only the above-mentioned codes and standards, but also ‘good practice’ in general. Skilled foremen and staff shall be employed for the work.

The final design prepared by the Contractor shall include a complete architectural, structural, and geotechnical design, including necessary detailed drawings, calculations, specifications, and schedules of work.

Drawings shall be in compliance with approved standards and properly identified with the name of the Project, name of Contractor and Enemalta, date of preparation, revisions, etc.

All buildings and structures shall take into account the sea-salt laden atmosphere and the occasionally high presence of dust in the environment. Also, refer to section 2.2 above.

After completion and commissioning, the Contractor shall correct and/or complete the general arrangement drawings (including layout plans, elevations and sectional drawings) to show the actual ‘as-built’ state. An endorsed copy of such drawings shall be handed over to the Contracting Authority within one month of commissioning.

#### **4.1.1 Submission of Documents**

The following are to be submitted to the Contracting Authority, following the Contract award, for necessary review and approval prior to commencement of site works:

- a. Construction Management Plan (CMP) spanning all civil engineering works, including:
  - i. construction and installation access points;
  - ii. temporary storage/stock piling areas for materials and plant/equipment (refer to clause 2.3);
  - iii. protection measures for adjoining installations;
  - iv. protection measures for the safety of pedestrians/vehicles/machinery;
- b. Traffic Management Plan (TMP) within Delimara Power Station;
- c. Detailed method statement;
- d. Risk assessment (refer to Article 13.8.1);
- e. Safe Work Method Statement;

#### **4.1.2 Land Surveying**

The Contractor shall be required to carry out a land survey of the two sites to obtain field data in accordance with accepted land surveying practices. This land survey and any associated activities are deemed as included within the scope of works of the Contractor.

The land survey shall include, as a minimum, spot elevations, existing utilities and manholes, fences, buildings, walls, structures, roads, vegetated areas and any trees, and any other physical features that could impact the design.

Spot levels shall be relative to the mean sea level (msl).

The land survey shall be used as the basis on which the detailed drawings shall be based on, including the preparation of the general arrangement drawings and any other associated drawings deemed necessary by the Contractor.

Setting out of the proposed Power Plant shall make use of this land survey, unless an alternative methodology is deemed as acceptable by both the Contracting Authority and the Contractor.

In the event that the land survey is found to be in error, resurveying and/or revisions shall be rectified by the Contractor immediately. The Contractor must give immediate attention to these changes so there shall be a minimum of delay.

#### **4.1.3 Existing Services**

The Contractor shall inspect the site, take all actions necessary to establish and/or verify the presence or absence of existing overhead or underground services, pipes, drains, cabling and supplies, and precisely identify and document such findings on detailed plans. These shall be presented to the Contracting Authority for review and confirmation.

The Contractor shall take all actions, measures and precautions to avoid effecting damages to such existing services.

#### **4.1.4 Boundary Fencing and Gates**

Any installations deemed necessary by the Contractor to render the sites as safe and secure are regarded to be within the Scope of Works.

Gates shall be kept closed at all times, except for the duration of delivery of material, equipment, consumables, etc. The boundary fencing and/or gates shall be strategically located and include emergency exits, in accordance with applicable standards. Travel distances prescribed by a competent person shall be respected in the final layout of the sites.

#### **4.1.5 Foundations**

The Contractor may deem that the existing ground conditions within Site 1 and Site 2 are adequate to sustain the loads imposed by the proposed Power Plant. Nonetheless, if new foundations are deemed as necessary by the Contractor, the analysis and design of such foundations are deemed as included within the Scope of Works of the Contractor and shall be carried out by a competent person.

Any foundations designed to sustain structures shall cater for horizontal loading, including seismic and wind loads.

Refer to section 4.2 below.

### **4.2 Ground Conditions**

The Contracting Authority has not performed any ground investigation on Site 1 and Site 2. However, general information on both sites is provided in the clauses below.

Information presented within section 4.2 is based on previous geotechnical investigations carried out in close proximity to Site 1 and Site 2, and on drawings available for the original structures on Site 1. However,

the information provided is indicative only, and the Contracting Authority shall not be held responsible for the accuracy of such information.

The Contractor may deem it necessary to carry out site sub-soil ground investigations to determine the load bearing capacity of the site.

#### 4.2.1 Geology of the Area

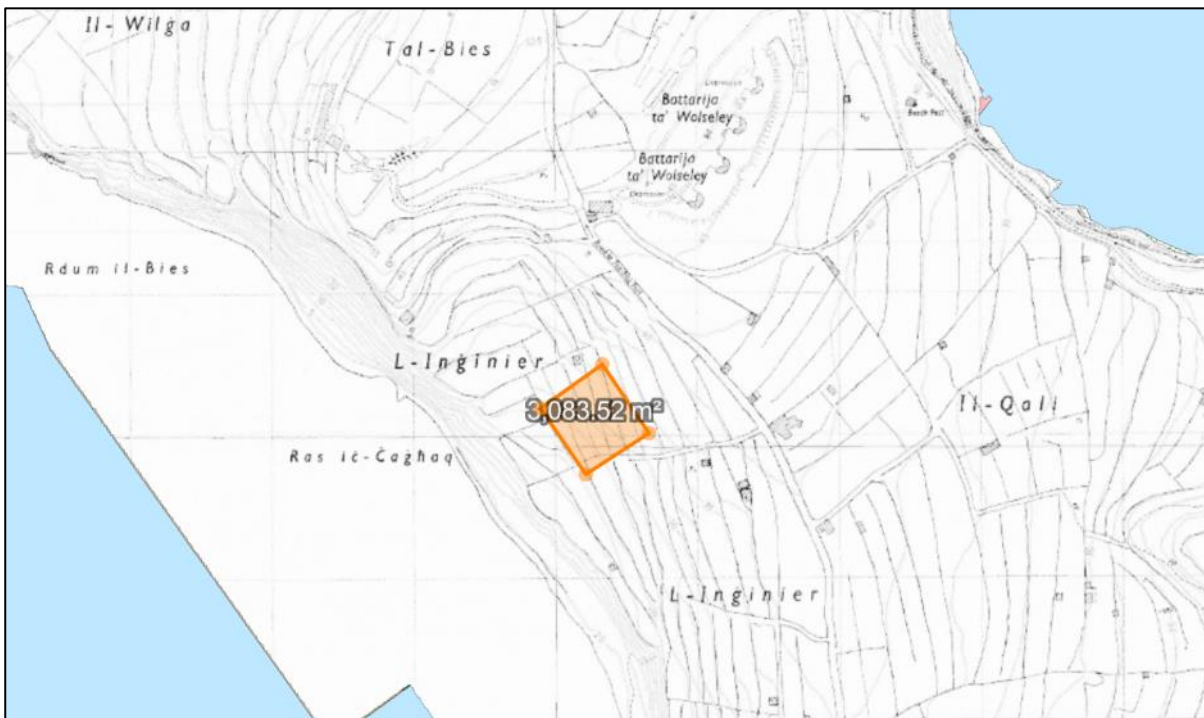
The published geological Map of the Maltese Islands can be accessed from the following link:

<https://experience.arcgis.com/experience/04736039724248fb8dc52615f1528e2e/page/Page>

Delimara Power Station is located in an area predominantly made up of Middle Globigerina Limestone. However, during the construction of the power station site, the area was expanded by non-engineered land reclamation.

#### 4.2.2 Delimara Power Station Site 1

Based on a preliminary analysis of Site 1, the area is located on land when compared with the original shoreline. Indicative siting of the area prior to land reclamation is shown in Figure 1 below. Site 1 measures approximately 61m x 60m for a total area of circa 3,660m<sup>2</sup>.



**Figure 1:** Site 1 superimposed over 1968 survey sheets, in relation to original shoreline

The Site 1 designated for the Power Plant within the Delimara Power Station was originally occupied by the former D1 power plant boilers and associated chimney stack. Although the boilers and the stack have been dismantled and removed from site, the foundations of these structures are still in place. The following drawings are being made available describing the site:

- Drawing 920/4011 (Rev. G) - Layout of Site Services Area 11
- 920/4012 (Rev. C) - Layout of Site Services Area 12
- 920/4015 (Rev. B) - Layout of Site Services Area 15
- 920/4016 (Rev. B) - Layout of Site Services Area 16

- 920/4051 (Rev. E) - Main Building Drainage
- 810/5001 (Rev. D) - Chimney G.A. and R.C. Details Foundation
- 810/5005 (Rev. A) - Chimney Base Slab, G.A. and R.C. Details
- 810/2061 (Rev. 1) - Details of Chimney
- 212/5001 (Rev. B) - Main Boiler House Foundation Reinforcement Details
- 212/4001 (Rev. D) - Boiler House Foundations G.A. of Foundations

Photographic evidence of the current state of Site 1 are being presented with these technical specifications.

#### **4.2.2.1 Boiler House Area**

Drawings 212/4001 and 212/5001 show the general arrangement and the individual details for the foundations of the boiler house which used to occupy part of Site 1. According to these drawings, the boiler house was supported on reinforced concrete pad foundations, the details of which are given in drawing 212/5001.

Drawings 920/4011 and 920/4015 show the extent of the old D1 boiler area. This area is covered by a concrete cover cap that levelled off the site under the former boilers, creating a flat platform that is situated at +4.0m above mean sea level.

Drawing 920/4011 and 920/4015 show the road that crosses the Site 1, with the road indicated as having an average level of 3.65m above mean sea level.

The foundations of the boiler house have not been removed and are still buried underneath the current finished ground levels.

According to drawing 212/5001, all base foundations are located on solid rock or mass concrete.

Levels indicated in the drawings are relative to L.A.T. (Lowest Astronomical Tide).

#### **4.2.2.2 Chimney Stack Area**

Drawing 920/4012 shows the location and extent of the old D1 chimney stack.

Drawing 810/5001 and 810/5005 provide a description of the chimney general arrangement and reinforced concrete details of the foundations.

The foundation block's top surface lies at +3.0m above mean sea level. The rest of the area around the stack foundation is original site bedrock. All the area is covered in loose gravel to a level of approximately +4.0m above mean sea level.

The foundations of the chimney stack have not been removed and are still buried underneath the current finished ground levels.

Levels indicated in the drawing 810/5001 and 810/5005 are relative to L.A.T. (Lowest Astronomical Tide).

#### **4.2.3 Delimara Power Station Site 2**

The Site 2 designated for the Power Plant within the Delimara Power Station is barren land (green field) which is mostly made up of the original shoreline bedrock, but the western part of this site is made up of reclaimed land. Refer to Figure 2 below for an indicative aerial representation of the site in relation to the original shoreline before the land reclamation.

Site 2 measures approximately 70m x 45m, for a total area of circa 3,150m<sup>2</sup>. The area is a portion of land which has not yet been developed and has been intermittently used as a temporary storage area of material and equipment.



**Figure 2:** Site 2 superimposed over 1968 survey sheets, in relation to original shoreline.

Photographic evidence of the current state of Site 2 are being presented with these technical specifications.

## 5.0 Mechanical Engineering Specifications

### 5.1 Fuel Available

#### 5.1.1 Liquid Fuel

The liquid fuel that shall be made available to the Power Plant shall be gasoil (No. 2 Diesel) complying with the EN590 specification.

The Gross Calorific Value (HHV) of the fuel is typically 45,762 kJ/kg.

Tenderers are to note that for design and evaluation purposes, the Net Calorific Value (LHV) of 42,700 kJ/kg shall be assumed.

All other parameters shall be as indicated in EN590 specification.

#### 5.1.2 Fuel Delivery

The Contracting Authority shall make available free of charge the gasoil at the connection points, as indicated below. All connection points shall be equipped with fiscal fuel flow integrators (supplied by the Contracting Authority) to register the amount of fuel supplied to the Contractor.

#### **5.1.2.1 Delimara Power Station Site 1**

The contracting authority shall provide a fuel connection at the Site 1 as detailed below:

- a. Supply pressure: 6.0 Bar
- b. Max flow rate: 20m<sup>3</sup>/hr

The connection point shall be located at the northwest corner of the Site 1, as indicated in drawing DPS-XZ-209. Alternatively, the Contractor may opt to transfer fuel from the Site 2 through his fuel handling plant.

#### **5.1.2.2 Delimara Power Station Site 2**

The Contracting Authority shall provide a fuel connection at the Site 2 as detailed below:

- a. Supply pressure: 6.0 Bar
- b. Max flow rate: 20m<sup>3</sup>/hr

The connection point shall be located at the southwest corner of the Site 2, as indicated in drawing DPS-XZ-209.

#### **5.1.3 Fuel Storage and Filtration**

The Contractor shall supply and install all the necessary filtration and pumping means required to ensure that the fuel reaches the gensets at the required pressure/flow/cleanliness required by the gensets.

The Power Plant shall be equipped with an appropriate fuel storage buffer to permit the proper operation of the plant in view that the Contracting Authority's fuel delivery pumps may not match the Contractor's fuel pumping requirements or in the event of a momentary loss of delivery pressure of the Contracting Authority fuel delivery pumps. It will be the responsibility of the Contractor to determine the capacity of the buffer to ensure reliable operation of the plant.

### **5.2 Power Plant Heat Rate**

The Contractor shall declare in his offer the expected energy conversion heat rate  $E_F$  (expressed in MJ/MWh at 24°C at 60MW output) of the Power Plant being offered.

The Contractor shall also declare the variation of heat rate with site ambient temperature and output power.

### **5.3 Control of Major Accidents Hazards**

The Delimara Power Station is classified as an 'Upper Tier' Control of Major Accident Hazards (COMAH) site, thus the Power Plant being offered shall comply with the 'Upper Tier' classification of the COMAH regulations, as specified in S.L.424.19 of the Laws of Malta.

The Contracting Authority is required to notify the COMAH Authority of this Power Plant that shall be installed at Delimara Power Station, providing all the information that is indicated in the same legislation and abiding by the instructions/recommendations of the same authority. To this effect, the Contractor is to provide all information that is requested by the Contracting Authority to satisfy these requirements.

The Contractor is therefore required to submit a comprehensive risk assessment as part of the Contract, not later than 3 weeks after contract signing. The risk assessment has to identify all the hazards and evaluate the resultant risks so as to allow the implementation of adequate control measures. The risk assessment has

to be submitted to the Occupational Health and Safety Authority for approval. The cost of this risk assessment shall be considered to be part of the Contract price.

## **6 Electrical Engineering Specifications**

### **6.1 Scope of Supply**

The Contractor shall perform studies to determine what electrical equipment is required in the Power Plant for the generation of electricity and conveying this electricity to the national grid via the connection point indicated by the Contracting Authority.

The supply shall include, but shall not be limited to, generators including their prime movers, excitation systems, transformers, switchgear, cables, protection systems, control and data management systems, and any other item of plant deemed necessary for the proper and safe control and operation of the complete Power Plant. In addition, the Contractor shall perform studies for load flows, short circuit current flows, protection schemes, earthing systems, cable ratings, and safety systems to determine the exact requirement and setting needed.

All equipment shall comply with the relevant standards as indicated in Clause 3.1.2.

### **6.2 Plant Ratings and Interface Requirements**

The plant(s) supplied shall be capable of operating continuously and delivering in total 60MW under the connection conditions indicated hereunder.

#### **6.2.1 Electrical Power Connection Points**

The Contracting Authority shall provide the Contractor with two connection points to the 33kV switchboards presently installed at the Delimara Power Station. Each connection point shall be rated continuously at 35MVA. The two connections shall be operated in parallel to permit the export of up to 60MW dispatched at up to 0.9p.f.

The proposed positions of the two connection points are shown in drawing DPS-XZ-209.

The Contractor must ensure that:

1. The cable type that the Contracting Authority will provide for these connections can be terminated in his plant;
2. The design of the Power Plant shall be such that the Plant's auxiliary loads shall be powered back from these 33kV connections. The Contracting Authority will not provide alternative power connections for the Power Plant auxiliary loads (see also Clause 6.4).

#### **6.2.2 Connection Cable**

The Contracting Authority shall provide two (2) in number trefoil cable assemblies, with each trefoil assembly made up of three (3) in number single core cables. Each cable shall have a current carrying copper conductor with a cross-sectional area of 400mm<sup>2</sup>. Cable shall be type XLPE with LSZH outer sheath.

### **6.2.2.1 Cable Termination at the Power Plant End**

The Contractor shall terminate the above-mentioned cables in the Power Plant's 33kV switchgear. Any material/termination kits required for such termination shall be provided and installed by the Contractor. Each trefoil cable assembly shall be terminated in a separate circuit breaker such that, in the event of a failure of a cable, the other trefoil assembly can be used to export half the power of the Power Plant.

### **6.2.2.2 Earthing of Connection Cable Sheath**

The screens of the 33kV cables shall be appropriately connected to an earth connection at the Contractor's end by the Contractor, as part of the termination assembly of the said cable. The same screen shall also be connected to earth at the Contracting Authority's end.

## **6.2.3 Earthing**

The Contractor shall supply and install an earthing system for the Power Plant he installs which fully satisfies the earthing requirements of the Power Plant, whilst complying with the relevant standards for step and touch voltages.

The ground resistivity of the original natural ground is typically  $9.0\Omega\text{m}$ , but this may vary depending on the actual site.

To this effect, the Contractor shall verify these values by direct measurement before designing his earthing systems. The Contractor shall NOT rely solely on the  $9.0\Omega\text{m}$  being stated here for his designs of the earthing system.

### **6.2.3.1 Earthing Facilities**

The Contractor shall ensure that it shall not be possible to select an integral earthing position or connect a portable earthing device to the 33kV connection coming from the Contracting Authority, unless the Contracting Authority's relevant 33kV circuit breaker is in open position, this to ensure that the Contracting Authority's 33kV cable is not earthed while it is energized.

Whichever earthing method is used, the earthing facility shall have a locking mechanism to prevent the earth being removed by either electrical or mechanical means. With this locking facility in use, it shall be impossible to place the circuit breaker of the Power Plant's switchgear in normal service position. If earthing trucks or other portable devices are required, these shall be provided by the Contractor, and their cost shall be deemed to be included in the bid price.

### **6.2.3.2 Connection of Power Plant Earthing to Contractor's Earthing Systems**

The Contracting Authority shall provide earthing connection point(s) which shall permit the connection of the Power Plant earthing system to the Contracting Authority's main earthing system at the Delimara Power Station. This earthing connection shall be used solely for the purpose of equipotential bonding of the Power Plant's earthing to the Contracting Authority's earthing system. The Contractor shall ensure that his earthing system provides the earthing requirements of his Power Plant as indicated in Clause 6.2.3, and in no way shall the Power Plant earthing requirements rely solely on this earthing connection for the safe earthing of the Power Plant. The location of this earthing point is indicated in drawing DPS-XZ-209.

### **6.2.3.3 Step-Up Transformers Star-Point Earthing**

The Contracting Authority employs impedance earthing on the star points of the transformers it has connected on the 33kV system. Each 'source' of earth current is limited to 1000A under earth fault conditions by appropriate impedances connected between the windings' star point and the ground.

In view of the above, step-up transformers, provided by the Contractor, that have a solidly earthed HV winding star point, shall NOT be allowed to be connected to the Contracting Authority's grid system. Other forms of star-point earthing, or delta windings on the HV side of the Contractor's step-up transformers, shall be considered by the Contracting Authority.

#### **6.2.3.4 Lightning Protection**

The Sites 1 and 2 are prone to lightning strikes under thunderstorm weather conditions. These sites are NOT covered completely for lightning strikes by adjacent structures (i.e. some areas fall outside of the protection spheres offered by the adjacent structures). In view of this, the Contractor shall design and implement his own lightning protection system to protect the plant he installs from lightning strikes.

#### **6.2.4 Connection Voltage**

The Power Plant shall be connected to the national grid by two connections operating at 33.0kV and having steady state tolerance of +5%/-10%.

#### **6.2.5 Voltage Control and Voltage Support**

The Power Plant's gensets shall be capable of providing voltage control at 4.0% droop during normal operation of the gensets, as long as the gensets are within the 1.0pf to 0.9pf VAR generating power range.

In addition to the above, the gensets shall be capable of riding through a grid voltage transient without disconnecting from the grid, as specified in EN 50549-2.

#### **6.2.6 Operating Frequency**

The power plant shall be connected to a grid system that operates at 50Hz having a frequency tolerance of  $\pm 1.0\%$  (49.5Hz to 50.5Hz) for 95% of the time, and  $-5.0\%/+4.0\%$  (47.5Hz to 52.0Hz) for 100% of the time.

#### **6.2.7 Phase Sequence**

The Contracting Authority's grid system to which the Contractor's Power Plant shall be connected, operates with the phase sequence L1-L2-L3.

#### **6.2.8 Frequency Control**

If the Power Plant offered comprises multiple small generating units, these units shall be brought online as necessary to cover grid load requirements, with the units in service loaded to 100% maximum continuous rating (MCR) after synchronisation.

If the Power Plant offered comprises one or two larger generating units, these units shall be brought online and loaded as necessary, within the allowed continuous operating range, to cover grid load as necessary.

All speed governors of the gensets' prime movers offered shall have frequency response set at 4.0% droop to be in line with the other gensets connected to the grid.

It is understood that those gensets that are loaded to 100% MCR would not be able to contribute to frequency drop situations as these would already be at max output. It shall then be up to the Contracting Authority to instruct the Power Plant to start up more gensets to assist in frequency correction. However, with the 4.0% droop setting requested, all gensets that are in service shall be in a position to contribute to normalise situations where there is a frequency rise.

Further to the above, the Power Plant's gensets shall be capable of riding through a grid frequency disturbance situation as specified in EN 50549-2 without tripping.

### **6.2.9 Fiscal Metering**

The Contracting Authority shall install fiscal meters at the connection points of the 33kV connections it shall provide to measure the energy exported by the Power Plant to the grid, as well as the energy imported from the grid by the Power Plant's auxiliary systems. These fiscal meters shall be the reference meters used to measure the actual energy delivered against the dispatch instruction from the Contracting Authority, and also the energy consumed by the Power Plant.

### **6.2.10 Line Differential Protection**

The 33kV cables that will connect to the Power Plant to the Contracting Authority's 33kV system will be fitted with a line differential protection system. The line differential protection system, fitted on the Contracting Authority's side 33kV circuit breaker, shall consist of:

- a. Line differential protection relay type Siemens 7SD803;
- b. Current transformers having CT ratio 600A/1A and accuracy class 5P20; and
- c. Pilot wire isolation transformer type 7XR9516.

An identical setup shall be required on the Contractor's side to be able to complete the setup of these line differential protection systems. The Contractor shall provide the same equipment on his side to complete the setup.

A copper communication cable shall be connected as pilot wire between the two end-line differential protection relays of each 33kV cable. This communications cable shall be supplied by the Contracting Authority.

### **6.2.11 Short Circuit Currents**

#### **6.2.11.1 3-Phase Symmetrical Short Circuit Current**

The total 3-phase symmetrical (L-L-L) short circuit current at the point of connection, fed from the grid, is 10kA.

The Contractor shall indicate the maximum contribution of 3-phase symmetrical (L-L-L) short circuit current of the proposed Power Plant to this short circuit current.

#### **6.2.11.2 Single Phase to Earth Short Circuit Current**

The single phase to earth (L-E) short circuit current at the point of connection fed from the Contracting Authority's grid is 1.0kA. The maximum allowed single phase to earth (L-E) short circuit current, including the contribution of the proposed Power Plant is 2.0kA. Therefore, the maximum contribution to this short circuit current by the Power Plant shall not exceed 1.0kA.

### **6.2.12 Power Flow**

The Contractor shall perform steady state load-flow calculations to ensure that equipment rating and impedances, transformer turns-ratios, tapping ranges (as applicable) and positions are adequate to ensure that permissible voltage ranges and current levels are not exceeded in any operating configuration and with any load (internal and external), including the most onerous. Every effort shall be made to choose low impedances to minimise voltage regulation whilst maintaining low fault current contribution.

The results of these load flow calculations may be requested by the Contracting Authority.

### **6.3 Power Plant's MV, LV and Control Systems**

The Contractor shall supply, install and operate all equipment required to interface the Contracting Authority's 33kV cable to the power plant to permit:

- a. The proper operation of the Power Plant;
- b. The export of the power generated by the Plant to the Contracting Authority's connection point; and
- c. The transfer of auxiliary power from the Contracting Authority's 33kV connection to all the Contractor's auxiliary plant.

All equipment installed shall comply with the relevant EN, IEC standards and EU directives.

### **6.4 Power Plant Auxiliary Power Requirements**

#### **6.4.1 Auxiliary Power for Erection**

As indicated in Clause 2.4.5, the Contracting Authority shall provide auxiliary power for the erection/dismantling of the Power Plant.

However, once the erection of the Power Plant has been completed and is operational, all auxiliary power required by the Power Plant shall be taken from the 33kV connection to the Contracting Authority's grid, via the Power Plant's auxiliary systems.

The back-fed (imported) auxiliary power shall be metered as indicated in clause 6.4.2.

#### **6.4.2 Auxiliary Power Consumed by Plant During Standby Mode**

All auxiliary power that is consumed by the Power Plant while this is in standby mode, as registered by the fiscal meters indicated in Clause 6.2.9, shall be charged for by the Contracting Authority at the prevailing electricity tariff rates as indicated in S.L. 545.01 Electricity Supply Regulations of the Laws of Malta, or in updates thereof.

### **6.5 Location of Major Equipment**

The Contractor shall note that the site is a coastal area exposed to seawater spray, thus having a saline environment.

In view of the environment, it is recommended that switchboards be placed indoors.

In the event that the Contractor opts for outdoor type of switchgear, the Contractor shall keep in view structures/buildings that are located adjacent to the sites where the Power Plant shall be installed. The Contractor shall maintain adequate clearance from such structures, both for safety reasons and to prevent unwarranted flashovers in worst case weather conditions.

### **6.5.1 Restriction in Site 2 Layout**

Tenderers shall note that in Site 2, no equipment containing combustible material shall be placed in the 8m 'safety zone' indicated in red in drawing DPS-XZ-209.

## **7 Commercial Specifications**

This Contract is for the lease and operation of emergency Power Plant having a total output capacity of 60MW, at 0.9 power factor, net continuous electrical power output, as indicated in Clause 1.3 when the Power Plant is operated at site 'Maximum' ambient conditions, as detailed in Clause 2.2.

The offered Power Plant shall be complete with all ancillaries that are required by the Power Plant to operate independently of other plants.

The boundaries of this Power Plant shall be the fuel supply connection point that is detailed in Clause 5.1.2, and the 33kV connection point that is detailed in Clause 6.2.1.

This Contract includes the procurement, supply, transportation to the relevant sites, erection, testing and commissioning of the Power Plant full complement and associated equipment, which shall include, and not be limited to, fuel supply systems, transformers, control systems, switchgear, cables and related works, as stated in this specification and schedules.

The Contract includes, but shall not be limited to, the:

- a. Project management;
- b. Design and engineering;
- c. Submission of information as requested by regulators, as the Contracting Authority seeks to obtain the required permits for operation of this Power Plant;
- d. Procurement, fabrication and inspection;
- e. Packing for export, insurance, and freight charges;
- f. Unloading, and eventual reloading (at end of Contract);
- g. Import licensing, customs clearance, delivery to sites, and storing on sites;
- h. Complete erection;
- i. Testing, commissioning, starting up, final testing, and finishing of all systems;
- j. Operation and maintenance of the Power Plant;
- k. Dismantling and removal from sites of all plant and equipment; and
- l. Returning site in a clean state to Contracting Authority at the end of the lease Contract.

The Contractor shall provide whatever may be necessary, even if not specifically mentioned in this specification, to complete a Power Plant that is proper, fully permitted, reliable, and safe to operate in accordance with existing laws, regulations, this specification, and good engineering practice.

Notwithstanding that any detail, accessories, etc., required for the complete installation and satisfactory operation of the Power Plant that are either not mentioned in this specification, or which may not be discussed during the negotiating phase, such details shall be considered as included in the Contract price.

## **7.1 Contractor's Responsibilities**

### **7.1.1 Transport to Site**

The Contractor shall arrange for the protection of all material against corrosion and mechanical damage during storage, erection, operation and dismantling at the sites.

The Contractor shall comply with any regulations related to carriage of goods and dangerous goods on the roads.

### **7.1.2 Interfacing with Existing Plant**

In each and every case involving a connection between the plant supplied under this Contract and existing plant which may or may not be in service, the Contractor must make suitable arrangements as regards to the time and manner in which the connection is to be made subject to the approval of the Contracting Authority. Where cases arise involving the operation or work on plant in operation, or whenever required by the Contracting Authority's representative, the Contractor must obtain a written 'Permit to Work' signed by a person authorised by the Contracting Authority or its representative.

### **7.1.3 Maintenance**

The Contractor shall be responsible for and shall perform all the maintenance required on the Power Plant supplied under this Contract until the last day of the Contract. The Contractor shall undertake all the preventive and breakdown maintenance operations that need to be carried out to ensure equipment integrity and Power Generating Plant availability. Moreover, the Contractor shall declare the unavailability times of the Power Plant, or part thereof, due to scheduled and unscheduled outages.

Any spare parts and/or consumables that are required to affect the preventive or breakdown maintenance of the Power Plant are to be supplied and installed by the Contractor, and all related costs are deemed to form part of the Contract.

### **7.1.4 Engagement of Professional Officers**

The Contractor shall be required to engage the services of Warranted Electrical, Mechanical and Civil Engineers, Health and Safety Officer and Site Manager to be responsible for all the works in their respective fields pertaining to the Project, as required by the Laws of Malta, as indicated in Clause 5(C)(ii) of the Instructions to Tenderers.

In the case of the Civil Engineer, at the signing of the Contract, the responsibility of all permits issued in the name of the Contracting Authority's civil engineer will need to be transferred to the Contractor's Civil Engineer, as required by the Laws of Malta.

Furthermore, the Contractor shall ensure that all the personnel working on the sites, both during the erection and during the operation/maintenance of the Power Plant, are appropriately licensed to perform such work.

## **7.2 Plant Operation**

### **7.2.1 Operating Regime and Flexible Operation**

The Power Plant shall be dispatched as backup in the event that the Contracting Authority experiences a shortfall in its sources of supply to the National Electricity Grid to meet demand, i.e. the Power Plant shall be the last to be started and the first to be stopped in a shortfall situation.

### **7.2.2 Plant Operating Personnel**

The Contractor shall ensure that the Power Plant is manned 24hr *per* day 365 days *per* year for the Term of the Contract so as to be in a position to start up the Power Plant when the Contracting Authority issues such an instruction.

The cost of having the operating personnel continuously on the site(s) shall be deemed to be included in the comprehensive offer for the lease of the Power Plant.

### **7.2.3 Flexibility of Operation**

The offered Power Plant must be capable of flexible operation, i.e. load-following with daily two-shifting cycle, or continuous baseload operation, for a number of days as necessary. The offered Power Plant shall be operated in parallel with the other generating units at the Delimara Power Station and the Sicily-Malta Interconnector.

The offered Power Plant shall be capable of operating continuously without limitation within the power range of 20MW to 60MW, as dispatched by the Contracting Authority.

### **7.2.4 Plant Operational Limits**

The Tenderer shall specify in his offer the operational limits of the Power Plant he is offering. This shall include, but not be limited to, the following:

- i. Preparatory procedures required for starting the Power Plant;
- ii. Start-up time from rest to synchronising;
- iii. Ramp up from synchronising to max continuous power output of the Power Plant, i.e. 60MW;
- iv. Minimum allowable continuous output in MW of the Power Plant being offered;
- v. Plant trip limits;
- vi. Routine maintenance requirements and associated maintenance down time - this is to be presented against the running hours of the Power Plant; and.
- vii. Routine testing procedures and associated down time.

Tenderers are to appreciate that this plant shall be started up in emergencies, so minimum startup and ramp up times shall be expected of the offered plant.

## **7.3 Dispatch Instructions by Contracting Authority**

The Contracting Authority shall normally issue daily day-ahead dispatch instructions showing the hourly MW and MVAR required from the Power Plant. The reactive power may be directly represented as MVAR, or a p.f. of MW dispatched.

In the event of an emergency situation arising after the Contracting Authority had already issued the dispatch instruction for the day, the Contracting Authority shall issue an immediate request for the Power Plant to provide the requested power. In such a situation, the first 'emergency' instruction shall be verbal followed immediately by a written instruction modifying the dispatch instruction that had been issued for the day.

The Contractor shall deliver the power requested for the time requested by the Contracting Authority.

### **7.3.1 Maximum Discrepancy Between Dispatch Instruction and Actual Energy Delivery**

The actual energy delivered by the Power Plant shall not be less than 95% of the dispatch instruction within the period of dispatch (1 hour), or part thereof (if the dispatch instruction does not cover a complete hour).

In the event that an unplanned dispatch instruction is issued by the Contracting Authority, and the plant still has to start up to satisfy the dispatch instruction, the following shall apply:

- a. The Power Plant shall be assumed to start up and ramp up to nominated power in the time declared in the Technical Offer; this shall be considered as normal startup;
- b. Following (a), the instructed energy delivery time shall start to be counted from the time the Power Plant reaches the nominated output, and the energy delivery discrepancy shall apply *pro rata* from this time till the end of the dispatch period.

## **8 Environmental Protection and Safety**

### **8.1 Occupational Health and Safety**

#### **8.1.1 Tools, Machinery and Equipment**

Tools, machinery, and other equipment shall be appropriate and meet the requirements set for work safety.

The vehicles, plant, and equipment used by the Contractor (and any sub-contractors) and deployed to the site(s) shall be certified by a competent person in accordance with the local regulations. Such certifications shall be kept in the Health and Safety file on site.

The Contractor shall employ only qualified operators for the machinery to be used on site. All the machinery shall be locked when it is parked, to avoid unauthorized operation of the machinery.

#### **8.1.2 First Aid**

The Contractor shall nominate a competent person to act as an on-site first aider. This competent person must be in possession of associated records showing relevant qualifications and/or first aid certificates of competency.

The Contractor shall also provide first aid boxes (a minimum of two (2)) on site which shall be available and accessible for the treatment of injured persons. Such first aid boxes shall contain suitable first aid equipment and be regularly stocked up.

#### **8.1.3 Emergency Plans and Procedures**

The Contractor shall follow the Contracting Authority's emergency plan and ensure that all employees and sub-contractors are aware and familiar with the Power Station's safety procedures.

Additionally, the Contractor shall comply with the Safety Standard Operating Procedures as detailed in section 3.2.3 above.

The Contractor shall take note, rectify and, if necessary, respond to the notices/reports issued by Contracting Authority.

## **8.2 Other Directives and Legislations**

All plant, all procedures, products, and works associated with the works are to abide by all European Union and Maltese legislations. The list is by no means exhaustive:

S.L. 424.19 Control of Major Accident Hazard Regulations

S.L. 427.29 Pressure Equipment Regulations

S.L. 427.35 Electromagnetic Compatibility Regulations

S.L. 427.57 Restriction of use of hazardous substances in electrical and electronic equipment regulations

Directive 2006/46/EU Machinery Directive

## SECTION 4 - SUPPLEMENTARY DOCUMENTATION

### ***4.1 - Draft Contract Form***

### ***4.2 - Specimen Performance Guarantee***

### ***4.3 - Specimen Tender Guarantee (Bid Bond)***

Not applicable

### ***4.4 - Specimen Pre-Financing Guarantee***

Not applicable

### ***4.5 - Specimen Retention Guarantee***

Not applicable

### ***4-6 - Ultimate Beneficiary Owner (UBO) Form***

These are available to view and download from the 'Resources Section' at:

[www.etenders.gov.mt](http://www.etenders.gov.mt)

### ***4.7 - General Conditions of Contract***

The full set of General Conditions for Services Contracts (Version 4.7) can be viewed/downloaded from the 'Resources Section' at:

[www.etenders.gov.mt](http://www.etenders.gov.mt)

It is hereby construed that the Tenderers have availed themselves of these general conditions and have read and accepted in full and without reservation the conditions outlined therein and are therefore waiving any standard terms and conditions which they may have.

These general conditions will form an integral part of the contract that will be signed with the successful Tenderer/s.

### ***4.8 - General Rules Governing Tendering***

The contents of this procurement document complement the latest version of the General Rules Governing Tenders applicable on the date of the publication of this tender, the Terms of Use and the Manual for Economic Operators applicable to Government's e-Procurement Platform (available from the Resources section of [Electronic Tendering - Welcome to e-PPS \(gov.mt\)](http://Electronic Tendering - Welcome to e-PPS (gov.mt))).

Schedule 3 entities do not fall within the remit of the Director of Contracts. Article 1 of the Special Conditions refers.

## **SECTION 5 - FINANCIAL OFFER / BILL OF QUANTITIES**

The Financial Bid Form is available separately as one of the Contract documents.

### **Decimal points**

Three decimal points do not exist as currency; therefore, such offers cannot be accepted. All price amounts quoted in the financial bid are to be submitted up to two decimal points. (Both the unit price/rate and the grand total price should be up to 2 decimal places)

### **Abnormally low offers**

Tenderers are reminded that the Contracting Authority is entitled to reject any offer which is considered to be abnormally low according to Regulation 243 of LN 352/2016.

## SECTION 6 - DESIGN DOCUMENTS INCLUDING DRAWINGS

### List of Drawings attached

No	Name	Drawing No
1.	Available Sites for Temporary Power Plant	DPS-XZ-209
2.	Layout of Site Services Area 11	920/4011 (Rev. G)
3.	Layout of Site Services Area 12	920/4012 (Rev. C)
4.	Layout of Site Services Area 15	920/4015 (Rev. B)
5.	Layout of Site Services Area 16	920/4016 (Rev. B)
6.	Main Building Drainage	920/4051 (Rev. E)
7.	Chimney G.A. and R.C. Details Foundation	810/5001 (Rev. D)
8.	Chimney Base Slab, G.A. and R.C. Details	810/5005 (Rev. A)
9.	Details of Chimney	800/2061 (Rev. 1)
10.	Main Boiler House Foundation Reinforcement Details	212/5001 (Rev. B)
11.	Boiler House Foundations G.A. of Foundations	212/4001 (Rev. D)

## APPENDIX 1 - PAYMENT STRUCTURE

Payment for this project shall be based on four (4) cost elements:

- a. Plant Mobilisation and Installation Payment;
- b. Capacity Availability Payment;
- c. Energy Delivery Payment; and
- d. Plant Demobilisation Payment.

Tenderers submitting their offer for the lease and operation of the Power Plant shall declare in their offer the various rates and parameters listed hereunder.

### **1. Plant Mobilisation and Installation Payment**

The Plant Mobilisation and Installation Payment *PC* (expressed in €) is defined as the payment that shall be charged by the Contractor to have the Power Plant, including all necessary equipment and material required for proper operation of the Power Plant, to be made available, mobilized, erected, connected, tested and commissioned.

This Plant Mobilisation and Installation Payment *PC* shall incorporate all costs, including, but not limited to:

- a. Procurement of all equipment and material required;
- b. Transportation costs and fees;
- c. Local and foreign labour required to affect transportation, erection, connecting up, testing, and commissioning;
- d. Other fees, including import tax fees, demurrage costs, import licensing and any other legal and commercial fees expected to be incurred;
- e. Any other costs deemed necessary by the Contractor for such installation.

The Tenderer shall declare in his offer the one-off Plant Mobilisation and Installation Payment *PC*.

### **2. Capacity Availability Payment**

$AAF_{Y,M}$  means the Capacity Availability Payment (expressed in €) in Billing Period *M* in the Contract Year *Y*, and shall be calculated in accordance with the formula:

$$AAF_{Y,M} = AF \times IF_Y \times \sum_H DA_H$$

Where:

*AF* means the Capacity Charge (expressed in €/MW), which shall include maintenance and operations costs, amongst others;

$IF_Y$  means the Inflation Factor calculated as indicated in Appendix 4;

$\sum_H$  means the sum over the Hours in Billing Period *M*; and

$DA_H$  means the Demonstrated MW Available (expressed in MW) at site ambient conditions for Hour *H*, capped at 60MW.

The Tenderer shall declare in his offer the Capacity Charge  $AF$  (expressed in €/MW).

The Contracting Authority shall measure, on an hourly basis, the actual energy delivered - the Metered Energy - at the connection points.

The Contracting Authority shall consider the following:

- a. If the Hourly Average MW Dispatch Instruction is zero (0), the Demonstrated MW Available  $DA_H$  shall be the Declared MW Available.
- b. If the Hourly Average MW Dispatch Instruction is not zero (0), and the Metered Energy is equal to or greater than the Hourly MW Dispatch Instruction, the Demonstrated MW Available  $DA_H$  shall be the Declared MW Available.
- c. If the Hourly Average MW Dispatch Instruction is not zero (0) and the Metered Energy is lower than the Hourly Average MW Dispatch Instruction, the Demonstrated MW Available  $DA_H$  shall be the Metered Energy.
- d. For each hour  $H$  within each month  $M$  where the Demonstrated MW Available at site ambient conditions is less than 60MW, apart from the reduced Capacity Availability Payment, the Contractor shall be penalised by an amount  $AAP_{Y,M}$  - the Capacity Availability Penalty in Billing Period  $M$  in the Contract Year  $Y$  (expressed in €) - that shall be calculated in accordance with the formula:

$$AAP_{Y,M} = 5 \times AF \times IF_Y \times \sum_H (60 - DA_H)$$

### 3. Energy Delivery Payment

$OF_{Y,M}$  means the Energy Delivery Payment (expressed in €) in Billing Period  $M$  in Contract Year  $Y$ , and shall be calculated in accordance with the formula:

$$OF_{Y,M} = (VP \times IF_Y) \times \sum_H N_H$$

Where:

$VP$  means the Variable Operating Cost (expressed in €/MWh);

$IF_Y$  means the inflation factor calculated as indicated in Appendix 4;

$\sum_H$  means the sum over the Hours in Billing Period  $M$ ; and

$N_H$  means the total Metered Energy (expressed in MWh) exported to the grid in Hour  $H$ .

The cost of fuel shall not be included in the Energy Delivery Payment calculation, since this cost shall be borne by Enemalta.

The Tenderer shall declare in his offer the Variable Operating Cost  $VP$  (expressed in €/MWh).

#### **4. Plant Demobilization Payment**

The Plant Demobilisation Payment *DC* (expressed in €) is defined as the payment that the Contractor shall charge the Contracting Authority to disconnect, dismantle, remove from site the Power Plant, and return the site/s to the Contracting Authority in the same condition that it/they was/were handed over in. This cost shall include any costs and fees that are due by the Contractor including, but not limited to, closing any permits, licenses and also all costs related to the removal and return of the leased plant to the Contractor's works.

The Tenderer shall declare in his offer the one-off Plant Demobilisation Payment *DC* (expressed in €).

## APPENDIX 2 - EVALUATION RENTAL COST DETERMINATION

For evaluation of this Tender, the offer with the lowest Evaluation Rental Cost  $TC_{Eval}$  and that satisfies the Power Plant specifications defined in this document shall be awarded the Contract.

The Evaluation Rental Cost  $TC_{Eval}$  shall be based on the four (4) cost elements defined in the Payment Structure (see Appendix 1), i.e.:

- a. Plant Mobilisation and Installation Payment  $PC$ ;
- b. Capacity Availability Payment  $AF_{Eval}$ ;
- c. Energy Delivery Payment  $OF_{Eval}$ ; and
- d. Plant Demobilisation Payment  $DC$ .

Therefore,

$$TC_{Eval} = PC + AFF_{Eval} + OF_{Eval} + DC$$

### 1. Plant Mobilisation and Installation Payment

The Tenderer shall declare in his offer the Plant Mobilisation and Installation Payment  $PC$  (expressed in €).

### 2. Capacity Availability Payment

For the purpose of evaluation, it shall be assumed that the Power Plant shall be fully available at 60MW throughout the twenty-seven (27) months duration of the Contract. Therefore, the Capacity Availability Payment  $AAF_{Eval}$  shall be equal to:

$$AAF_{Eval} = AF \times [(IF1_{Eval} \times H1_{Eval}) + (IF2_{Eval} \times H2_{Eval}) + (IF3_{Eval} \times H3_{Eval})] \times DA_{Eval}$$

Where:

$AF$  means the Capacity Charge (expressed in €/MW) declared by the Tenderer in his offer;

$IF1_{Eval}$  means the Inflation Factor during Operation Year 1 that shall be 1.0000;

$H1_{Eval}$  means the number Hours of Power Plant Availability during Operation Year 1 projected for evaluation purposes to be 4,416h (assuming plant shall be commissioned on 1<sup>st</sup> July 2024);

$IF2_{Eval}$  means the Inflation Factor during Operation Year 2 projected for evaluation purposes to be 1.0415;

$H2_{Eval}$  means the number Hours of Power Plant Availability during Operation Year 3 projected for evaluation purposes to be 8,760h;

$IF3_{Eval}$  means the Inflation Factor during Operation Year 3 projected for evaluation purposes to be 1.0847;

$H3_{Eval}$  means the number Hours of Power Plant Availability during Operation Year 3 projected for evaluation purposes to be 6,552h (assuming that Termination Date shall be 30<sup>th</sup> September 2026).

$DA_{Eval}$  means the Demonstrated MW Available during the Operation Term projected for evaluation purposes to be 60MW.

### 3. Energy Delivery Payment

For the purpose of evaluation, it shall be assumed that the Power Plant shall be dispatched at 60MW for a definite number of hours throughout the twenty-seven (27) months duration of the Contract. Therefore, the Energy Delivery Payment  $OF_{Eval}$  shall be equal to:

$$OF_{Eval} = \left\{ \left[ \left( G_{Eval} \times \frac{E_F}{C_V} \right) + (VP \times IF1_{Eval}) \right] \times (H1'_{Eval} \times N1_{Eval}) \right\} \\ + \left\{ \left[ \left( G_{Eval} \times \frac{E_F}{C_V} \right) + (VP \times IF2_{Eval}) \right] \times (H2'_{Eval} \times N2_{Eval}) \right\} \\ + \left\{ \left[ \left( G_{Eval} \times \frac{E_F}{C_V} \right) + (VP \times IF3_{Eval}) \right] \times (H3'_{Eval} \times N3_{Eval}) \right\}$$

Where:

$G_{Eval}$  means the Cost of Fuel projected for adjudication purposes to be €950/mT;

$E_F$  means the Power Plant Heat Rate at 24°C and 60MW output (expressed in MJ/MWh) declared by the Tenderer;

$C_V$  means the Calorific Value of the gasoil projected for adjudication purposes to be 42,700MJ/mT;

$VP$  means the Variable Operating Cost (expressed in €/MWh) declared by the Tenderer;

$IF1_{Eval}$  means the Inflation Factor during Operation Year 1 that shall be 1.0000;

$H1'_{Eval}$  means the number Hours that the Power Plant shall be dispatched during Operation Year 1 projected for adjudication purposes to be 100h;

$N1_{Eval}$  means the power exported to grid by the Power Plant during each Hour that it shall be dispatched during Operation Year 1 projected for adjudication purposes to be 60MW;

$IF2_{Eval}$  means the Inflation Factor during Operation Year 2 projected for adjudication purposes to be 1.0415;

$H2'_{Eval}$  means the number Hours that the Power Plant shall be dispatched during Operation Year 2 projected for adjudication purposes to be 150h;

$N2_{Eval}$  means the power exported to grid by the Power Plant during each Hour that it shall be dispatched during Operation Year 2 projected for adjudication purposes to be 60MW;

$IF3_{Eval}$  means the Inflation Factor during Operation Year 3 projected for adjudication purposes to be 1.0847;

$H3'_{Eval}$  means the number Hours that the Power Plant shall be dispatched during Operation Year 3 projected for adjudication purposes to be 125h; and

$N3_{Eval}$  means the power exported to grid by the Power Plant during each Hour that it shall be dispatched during Operation Year 3 projected for adjudication purposes to be 60MW.

The Tenderer shall declare in his offer the Power Plant Heat Rate  $E_F$  at 24°C and 60MW output (expressed in MJ/MWh).

#### **4. *Plant Demobilisation Payment***

The Tenderer shall declare in his offer the Plant Mobilisation and Installation Payment *DC* (expressed in €).

### APPENDIX 3 - COST OF POWER PLANT ENERGY CONSUMPTION

The Contracting Authority shall charge the Contractor for the energy imported from the grid and consumed by the Power Plant as indicated in Clause 6.4.2.

$SE_{Y,M}$  means the Energy Consumption Payment in Billing Period  $M$  in Operation Year  $Y$  (expressed in €) that the Contracting Authority shall charge, and shall be calculated in accordance with the formula:

$$SE_{Y,M} = E_C \times \sum_H E_H$$

Where:

$E_C$  means the price of electricity (expressed in €/MWh), as indicated to be applicable by the Electricity Supply Regulations S.L 545.01, and as updated from time to time;

$\sum_H$  means the sum over the Hours in Billing Period  $M$  and

$E_H$  means the energy from the grid (expressed in MWh) consumed by the Power Plant for Hour  $H$ , as registered by the Contracting Authority's fiscal meters.

The Tenderer shall declare the expected monthly energy consumption by the Power Plant in his offer.

## APPENDIX 4 - INFLATION FACTOR

The Inflation Factor  $IF_Y$  shall be defined as the factor that shall be applied to individual costs, where applicable, to account for annual price inflation. The Inflation Factor  $IF_Y$  shall be defined as:

$$IF_Y = \frac{HICP_Y}{HICP_0}$$

where:

$HICP_0$  means the Euro Area (20 countries) HICP for all items excluding tobacco published by Eurostat for the month  $M-1$  prior to the month  $M$  when the plant is commissioned; and

$HICP_Y$  means, for Operation Year  $Y$ , the Euro Area (20 countries) HICP for all items excluding tobacco published by Eurostat for the Calendar Month immediately preceding the commencement of Operation Year  $Y$ .

i.e. for Operation Year 1,  $HICP_Y = HICP_0$ , and  $IF_Y = 1$ .

## APPENDIX 5 - FUEL RETURN

At the end of the Contract Term, all unconsumed fuel shall be returned by the Contractor to the Contracting Authority. The actual amount of fuel consumed by the Power Plant during the Contract Term shall be calculated in accordance with the formula:

$$QC = QD - QR$$

Where:

$QC$  means the amount of fuel (expressed in mT) actually consumed by the Power Plant during the Term;

$QD$  means the amount of fuel (expressed in mT) delivered by the Contracting Authority to the Contractor during the Term;

$QR$  means the amount of fuel (expressed in mT) returned by the Contractor to the Contracting Authority at the end of the Term;

The amount of fuel expected to be consumed by the Power Plant during the Term, based on the Power Plant heat rate declared by the Contractor, shall be calculated in accordance with the formula:

$$QCC = \sum_Y QCC_Y$$

Where:

$QCC$  means the amount of fuel (expressed in mT) expected to be consumed by the Power Plant during the Term, based on the Power Plant heat rate declared by the Contractor;

$\sum_Y$  means the sum over the Operation Years  $Y$  in the Term; and

$QCC_Y$  means the amount of fuel (expressed in mT) expected to be consumed by the Power Plant in Operation Year  $Y$ , based on the Power Plant heat rate declared by the Contractor, that shall be calculated in accordance with the formula:

$$QCC_Y = \sum_M QCC_M$$

Where:

$\sum_M$  means the sum over the Billing Periods  $M$  in Operation Year  $Y$ ; and

$QCC_M$  means the amount of fuel (expressed in mT) expected to be consumed by the Power Plant in Billing Period  $M$ , based on the Power Plant heat rate declared by the Contractor, that shall be calculated in accordance with the formula:

$$QCC_M = \sum_H \frac{(N_H \times EF_H)}{CV_{Y,M}}$$

Where:

$\sum_H$  means the sum over the Hours  $H$  in Billing Period  $M$ ;

$N_H$  means the total Metered Energy (expressed in MWh) exported to the grid in Hour  $H$ ;

$EF_H$  means the Power Plant Heat Rate (expressed in MJ/MWh) in Hour  $H$  declared by the Contractor; and

$CV_{Y,M}$  means the calorific value of the gasoil (expressed in MJ/mT) measured at the end of each Billing Period  $M$  by the Contracted Authority.

At the end of the Term, the Contracting Authority shall invoice the Contractor for the actual fuel (expressed in mT) consumed by the Power Plant during the Term exceeding 100.4% of the amount of fuel (expressed in mT) expected to be consumed by the Power Plant during the Contract Operation Term based on the Power Plant Heat Rate declared by the Contractor, that shall be calculated in accordance with the formula:

$$FUI = [QC - (QCC \times 1.004)] \times FF \times EXR$$

Where:

$FUI$  means the amount (expressed in €) charged by the Contracting Authority to the Contractor for the actual amount of fuel consumed by the Power Plant during the Contract Operation Term above the 100.4% threshold of the amount of fuel (expressed in mT) expected to be consumed by the Power Plant during the Contract Operation Term based on the Power Plant Heat Rate declared by the Contractor;

$FF$  means the arithmetic average of all Ultra Low Sulphur Diesel 10ppm CIF Mediterranean daily settlement prices (expressed in US\$/mT) for each day of the Contract Operation Term as published on [ULSD 10ppm CIF Med Cargoes Future \(ice.com\)](#) and calculated by rounding to four (4) decimal places

$EXR$  means the exchange rate between the US\$ and the € computed on the basis of the arithmetic average of the daily averages of the USD/EUR foreign exchange reference rate published by the European Central Bank 16:00 (CET time) and quoted on [European Central Bank \(europa.eu\)](#) during the Contract Operation Term and calculated by rounding to four (4) decimal places.