

## TERMS OF REFERENCE FOR THE ASSIGNMENT:

### Independent Monitoring Consultant for the development of an LNG receiving facility based on a floating storage and regasification unit (FSRU) in Cyprus

#### 1. BACKGROUND

The European Bank for Reconstruction and Development (the “**EBRD**”) intends to hire an independent consultant (the “**Consultant**” or the **TESC**) to provide technical, procurement, environmental & social consultancy services (the “**Assignment**”) for the development of an LNG receiving facility based on a floating storage and regasification unit (“**FSRU**”) in Cyprus (the “**Project**”). The beneficiary of the loan will be ETYFA, the Natural Gas Infrastructure Company of Cyprus (“**ETYFA**”, the “**Borrower**” or the “**Company**”). ETYFA is owned by the Natural Gas Public Company of Cyprus (“**DEFA**”) and the Electricity Authority of Cyprus (“**EAC**”). The European Investment Bank (“**EIB**” or collectively with EBRD the “**Banks**”) will also be providing a loan to ETYFA for the Project alongside EBRD and will participate in this Agreement.

The financing will be provided for the construction of the Project consisting of the following key features:

1. an LNG carrier will be converted into a FSRU (identified as a Moss type LNG vessel built in 2002, with an LNG storage capacity of approximately 136,000 m<sup>3</sup>), the conversion works of the vessel will be carried out at the Hudong Shipyard in China;
2. the FSRU will be able to unload LNG from visiting LNG carriers ranging in size from 120,000 m<sup>3</sup> to 217,000 m<sup>3</sup> (Q-Flex), using Ship to Ship (STS) transfers;
3. there will be the potential for the FSRU to provide LNG Bunkering for smaller vessels from 1,000 m<sup>3</sup> to 7,000 m<sup>3</sup>, using Ship to Ship (STS) transfers from the FSRU;
4. a piled jetty and trestle, up to 1.3 km from the shoreline, will be constructed for the safe berthing of the FSRU and any visiting LNG carrier; and
5. a high pressure gas pipeline will be constructed, running from the jetty head to the Vasilikos power station via a buffer storage facility (gas pipeline array) and including all pressure reduction, gas metering and quality analysis facilities.

The figure below provides an indicative schematic of the Project layout.



The Project will be delivered under a comprehensive, turnkey engineering, procurement, construction, operating and maintenance contract (“**EPCOM**”). Following a competitive tender, a Chinese-led consortium (the “**EPCOM Contractor**”) was selected. The EPCOM Contractor consists of Chinese state entities China Petroleum Pipeline Engineering Co. Ltd (“**CPP**”) and Hudong-Zhonghua Shipbuilding (Group) Co. Limited (“**Hudong**”), Greece’s Metron Energy Applications S.A. (“**Metron**”), and Wilhelmsen Ship Management Limited (“**Wilhelmsen**”).

The project implementation is under the responsibility of ETYFA, with the support of DEFA personnel.

DEFA will be acting for and on behalf of ETYFA and will have its own project staff available to monitor and supervise the project implementation and will be supported by an external Owner’s Engineer team. In addition, the project development will be overseen by a Steering Committee consisting of the Ministries of Energy and Finance, the Public Procurement Directorate, the Auditor General, Legal Services, the Public Works Department, the Department of Land & Surveys and the Town Planning & Housing Department.

The Owner’s Engineer role will be to manage the EPCOM contract and oversee the initial operations of the LNG import terminal infrastructure until acceptance. The Owner’s Engineer will coordinate and support ETYFA with all tasks relevant to project management and supervision, and monitoring of the construction so as to achieve the issuance of the Certificate of Confirmation of Acceptance pursuant to the terms of the EPCOM contract. The Owner’s Engineer will be selected through a competitive tender announced by ETYFA on March 13th, 2020.

ETYFA has appointed a Project Manager responsible for the supervision and coordination of the overall progress in the implementation of the Owner’s Engineer contract scope and relevant activities. The Project Manager will set priorities, provide guidance, and evaluate and approve the results (deliverables and reports) of the Owner’s Engineer. ETYFA will provide the personnel necessary to manage and resolve issues related to the management of the EPCOM contract.

The Project schedule is based on achieving acceptance of the works under the EPCOM contract, marked by the issuance of the Certificate of Confirmation of Acceptance. It is expected that this should be no more than 24 months from the date of the Notice to Proceed issued by ETYFA to the EPCOM Contractor for the commencement of the works, plus contingency for any outstanding acceptance period for minor issues. The Notice to Proceed has been issued on 29<sup>th</sup> May 2020.

An Environmental and Social Action Plan (“**ESAP**”) has been prepared and agreed with the client in order to ensure the EPCOM Contractor / ETYFA implement best international practices in terms of environmental and social management and in line with EBRD Performance Requirements (“**PRs**”). The ESAP includes amongst others: development of Environmental and Social Policy; establishment of a project specific Environmental and Social Management System (“**ESMS**”) to define the processes, monitoring and reporting requirements; strengthening ESHS capabilities to monitor and follow up the environmental and social performance of the Project; preparation of an Environmental and Social Monitoring Plan (“**ESMP**”) and Health and Safety plan; further consultation with affected communities and relevant groups/stakeholders involved in fishing activities; development and implementation of a Marine Biodiversity Management and Monitoring Plan including the observation of the area for the potential presence of marine mammals; development and implementation of a Stakeholder Engagement Plan (“**SEP**”) appropriate to the nature and scale or the risks, impacts and development stage of the Project.

**Estimated Project Costs**

| <b>Nr.</b> | <b>Description</b>                             | <b>Estimated contract value</b> |
|------------|--|---------------------------------|
|            |  | <b>EUR millions</b>             |
| <b>1</b>   | <b>EPCOM</b>                                   |                                 |
| 1.1        | FSRU acquisition                               | 70.0                            |
| 1.2        | FSRU conversion                                | 122.4                           |
| 1.3        | Jetty  | 34.8                            |
| 1.4        | Moorings                                       | 27.2                            |
| 1.5        | Onshore Pipeline                               | 5.4                             |
| 1.6        | Natural Gas Buffer Solution                    | 11.3                            |
| 1.7        | Pressure Reduction and Metering Station (PRMS) | 11.2                            |
| 1.8        | Above Ground Installations and spares          | 1.6                             |
| 1.9        | General items                                  | 5.7                             |
| 1.10       | Contingencies                                  | 40.4                            |
| <b>2</b>   | <b>Other Capex</b>                             |                                 |
| 2.1        | Environmental remediation                      | 5.0                             |
|            | <b>Total Capex</b>                             | <b>335.0</b>                    |
| <b>3</b>   | <b>Other Expenditure</b>                       |                                 |
| 3.1        | Owner's Engineer                               | 10.5                            |
| 3.2        | Financing costs during construction            | 8.6                             |
|            | <b>TOTAL PROJECT COSTS</b>                     | <b>354.1</b>                    |

**2. OBJECTIVES**

The Banks, represented by EBRD, wish to engage the Consultant to act as an Independent Monitoring Consultant for the Project. The main objective of this Assignment is to perform all the necessary technical, procurement, environmental and social monitoring services acting on behalf of the Banks for the Project from the time of signing, through successful commissioning of the Project and periodically thereafter during the first two years of operations of the Project. On behalf of the Banks the Consultant will in particular carry out the following tasks:

- regularly (at a frequency agreed with the Banks) monitor the Project implementation progress in line with the EPCOM contract, according to the agreed schedule, including verification and analysis of the Project costs and physical progress and opine on whether good practices are maintained during construction process;
- analyse and make comments on the way in which the EPCOM Contractor is performing their tasks as per the EPCOM contract, including compliance with permits, standards for their employees and the need to have clear procedures to inform the Promoter on potential integrity breaches including those of sub-contractors
- review and comment on the Project management and the Company's supervision arrangements for the works and services for the Project
- confirm the completion of the Project to the Banks;
- analyse and make comments on the E&S performance and the extent to which the Project is in compliance with the EBRD Performance Requirements, good industry practices and the overall requirements of the EIA, SEP, ESMP and ESAP and other project documents;

- analyse and make comments on the material changes which occurred throughout the implementation of the Project regarding its design, operations, costs and timing;
- Provide the advice required by EBRD in order that it can make the disbursements in accordance with its loan agreement;

The pre-completion monitoring process will be commensurate with, and proportional to, the potential risks, aspects and impacts of the Project and utilise existing information to the extent possible.

The Assignment will require that the Consultant visits the Project sites to observe actions on the ground, review physical records as well as to interview ETYFA/DEFA staff, and if required with the EPCOM contractor, ETYFA to facilitate this per the provisions of the EPCOM contractor.

Where relevant, the TESC will utilise existing engineering and other technical studies, including but not limited to the regular reports of the EPCOM Contractor and/or the Owner's Engineer to the Company and other data and information that the Banks, the EPCOM Contractor, the Owner's Engineer or the Company will provide.

Any of the Banks may request the Consultant to carry out some specific scope of work it considers necessary. The time and possible additional costs required for carrying out this work will be agreed in advance with the Consultant and will be for an amount not exceeding EUR 100,000, to be used only with permission of the EBRD.

### **3. SCOPE OF WORK**

The main tasks of the work are described below.

#### **Task 1: Review of Project status**

Immediately after the signing of the Assignment, the Consultant will make preliminary analyses of existing documents and discuss with the Company in order to provide comfort to the Banks that the Project has been prepared and is being implemented according to the schedule under the EPCOM contract, with the assumed construction budget and timetable, agreed procurement plan (Annex 1) and procedures as well as the expected technical characteristics. For that purpose, the TESC will:

- Review and opine on the current status of the Project, including permitting status (and preparedness for compliance thereof by the Project and contractor and confirm certification documents of contractor);
- Assess construction budget and overall investment costs;
- Review and opine on the EPCOM contract and confirm appropriateness in line with international best practices;
- Review the Project progress at the time of the start of the Assignment and comment on deviations from the original schedule;
- Review the proposed construction program until Project completion and assess risks to base case and targeted commercial operations date;
- Review the available E&S documentation and make an evaluation of resources on the ground and assess risks of deviation to the Project requirements as incorporated in the environmental and social documents. All relevant E&S due diligence documentation will be made available.
- Analyse and critically assess the overall Project organisation plans and Project implementation arrangements (inclusive of EHSS), including already completed and planned works;
- Make specific recommendations on the methods and ways to improve the Project management, including ETYFA's procedures to regularly verify contractor's eligibility under EU laws;;

The results and the conclusions of this Task will be presented in the Inception Report.

## **Task 2: Review of Project Implementation Progress**

The TESC will follow up the Project implementation continuously and will review progress of major works throughout the implementation period (2020-2022) and the first two years of operation of the Project in the post implementation period.

This will include regular visits to the site (expected to be quarterly during construction) and reviewing all the necessary documents, including the regular Project progress reports provided by the EPCOM Contractor and/or the Owner's Engineer to the Company.

Specifically, the Consultant will perform the following actions and will generate the following reports:

### 2.1 Progress reports during construction

The Consultant will regularly communicate with the Banks and the Company. The Consultant will supply every three months a short report on the progress of the Project ("Interim Progress reports"). The exact content and format of these Interim Progress reports will be agreed in advance with the Banks but is expected to include:

- The conclusions of each site visit (see Section 2.3);
- A brief update on the Technical Description, explaining the reasons for significant changes vs. initial scope along with an assessment of the management of change procedure implemented;
- Any permits related to Unexploded Ordnance (UXO), if and when required;
- Update on the date of completion of each of the main project's components, explaining reasons for any possible delay (including preparation of contingency plans in the case of vessel delivery delay);
- Update on the cost of the project, explaining reasons for any possible cost variations vs. initial budgeted cost;
- An overview of the status of environmental and social management relative to the requirements set forth in the project documents (with emphasis on the environmental and social management plans and the Environmental and Social Action Plan) and a detailed description of any significant issue with regard to real or potential impact on the environment;
- Update of the permit matrix, authorisations (including labour permits) and flag register;
- Update of the working standards implementation including review of the QA/QC measures;
- Update on the development and adoption of the regulatory regime for gas infrastructure as applicable to the project;
- Update on the implementation by Cyprus Authorities of Vasilikos coordinated governance;
- Update on the Project's demand or usage and comments;
- Any significant issue that has occurred and any significant risk that may affect the Project's operation or reputation (to include technical, compliance, fiscal amongst others);
- Any legal action concerning the Project that may be on-going;
- Non-confidential project-related pictures, if available

### 2.2 Approval of the EBRD Drawdown Requests

Based on the information and documentation prepared by the Company and as well as own inspection on site as described below, the Consultant will check the fulfilment of the Conditions Precedent to each EBRD Drawdown Request as set in the EBRD Loan Agreement.

Specifically the TESC will check relevant invoices attached to the EBRD Disbursement Application and compare them with the EPCOM contract in terms of completion of the agreed milestones and their accordance with the payment schedule.

After having completed its review, for each Disbursement Application submitted to EBRD the TESC will issue a drawdown certificate to EBRD to confirm:

- that the disbursement application is correctly completed and justified and the itemised expenditures have or will be properly incurred in accordance with the EPCOM contract;
- whether there is evidence of present or future cost overruns which could cause the final Project costs to be more than 20% above the original budget.

The Consultant shall review and verify whether certified progress payments to the EPCOM Contractor are based on estimated achieved progress and conform to the payment schedule in the EPCOM contract. He shall assess the final EPCOM contract costs and Project costs versus estimates

### 2.3 Implementation Monitoring and Site Inspections.

The Consultant will perform the following actions:

- a) review the technical implementation of the EPCOM contract, the progress of its implementation and the process and progress of authorisation process against agreed schedules, including amendments, if any;
- b) monitor and review whether the goods delivered are in accordance with conditions of the EPCOM contract;
- c) in general, monitor and review the quality of the work being done as part of the Project and whether the quality control systems employed are adequate;
- d) undertake quarterly site visits in line with a procedure agreed by the Company and the Banks;

The conclusions of the project implementation site visits will be detailed in the Interim Progress reports to be provided to the Banks and the Company. During these site visits, the TESC will:

- Complete a site walk-over the LNG receiving facility and related Project infrastructure;
- Conduct interviews with key Project personnel responsible for its operation;
- Review the Project progress at the time of the site visit and make comments in this respect;
- Review the execution schedules for the remaining works until project completion and assess risks to base case and targeted commercial operations date;
- Review implementation of ESMPs and other related commitments included in the national EIA, ESAP etc.; and
- Meet with relevant Project affected persons & stakeholders as necessary to ascertain project compliance with commitments.

On conclusion of each site visit, the Consultant will prepare a written report on the visit to be included in the Interim Progress reports.

The Consultant will provide feedback to the Banks and the Company on the findings of the site visits including communication of the necessary actions to address any areas of concern and bring the Project into compliance with the Project commitments, EBRD Performance Requirements etc.

It is expected that the Assignment will necessitate two full days in the field for each individual site visit.

The date of the first visit will be agreed with the Banks and the Company. The second site visit should take place within approximately 3 months after the first site visit.

To address the Banks' EHSS requirements, it is expected that each monitoring visit will also include one environmental specialist, one social specialist and one local specialist. Banks' representatives may join such monitoring visits.

### **Task 3: Confirm Project Completion**

The Consultant will perform the final site visit around the date of issuance of the Certificate of Confirmation of Acceptance under the EPCOM contract in order to confirm the completion of the Project and that the Project has been implemented according to plans. For that purpose, the TESC will issue a report ("Completion Report") which shall include:

- Review the Project progress at the time of the final site visit;
- Review and provide an overall assessment of the total Project implementation, including explanations of major deviations in time, budget and technical performance of the main equipment and of the system as a whole;
- Confirm that the project has been completed in accordance with the requirements of the ESMP's, EIA and the ESAP, and that the Project can be operated in accordance with such requirements;
- Confirm the date of completion of each of the main Project's components, explaining reasons for any possible delay
- Employment effects of the Project: person-days required during implementation as well as permanent new jobs created;
- A description of any major issue with impact on the environment or social impacts;
- Any significant issue that has occurred and any significant risk that may affect the project's operation;
- Any legal action concerning the Project that may be on going.
- Non-confidential project-related pictures, if available.

#### **Task 4: Review Project operation and maintenance**

Post completion, the Banks may ask the Consultant to visit the Project up to a maximum of two visits per year during the first two years of the Project's operations.

The purpose of the E&S monitoring will be to continue the verification of Project compliance with commitments made in the EIA, ESAP, SEP and ESMPs and other commitments that will continue to be relevant following Project completion. In addition, the Consultant will review the Project's performance during operation and provide data that compares actual with expected performance.

- by comparing actual performance with indicators
  - LNG deliveries (vessels, quantities...)
  - Natural gas output per year, month, day (min-max)
  - Transport pipelines constructed,
  - Monthly average LNG purchase prices
  - Operation KPI (utilisation ratio, demurrage, detention...)
  - Availability KPI (maintenance, shutdown...)
- Update on the project's demand or usage and comments;
- Identify issues raised by the Borrower with the Constructor and review the maintenance costs covered or not covered by the Constructor's guarantee

## **4. DELIVERABLES**

The Consultant will prepare the reports mentioned above and as follows:

### **▪ Inception report**

Within two weeks after contract signing, the TESC shall submit to the Banks the written ***Inception Report*** indicated in Task 1.

Based on existing data and information, the Consultant in the Inception Report shall provide preliminary findings in relation to all tasks and a detailed programme for the work. A detailed written questionnaire will be included in the Inception Report, so that the Company will have the time to prepare staff and answers to the TESC during the 1<sup>st</sup> site visit.

- **Progress Reports – During Project implementation**

Every quarter after the Inception Report, the Consultant will prepare an *Interim Progress Report* commenting on Project progress and addressing any issues raised by the Company or highlighted by the EPCOM Contractor or the Banks (according to Task 2) and including site visit reports with detail description of findings, results, conclusions and recommendations described above for the Banks, ETYFA and DEFA review and comment.

- **Project Completion Report**

The TESC will also be expected to prepare a Final Report for the Banks, ETYFA and DEFA review and comment, as described in Task 3 and submit the final version to the Banks within two weeks following receipt of the Banks comments.

- **Progress Reports – During Project operation and maintenance**

Following Project implementation and for a period of 2 years, the Consultant will prepare an *Operational Status Report* commenting, as described in Task 4, on the performance of the Project, comparing to expected performance and identify deviations from the agreed indicators.

All the reports mentioned above will be prepared both in English in MS Word and PDF format. All of the above-mentioned reports will be provided electronically to the Banks and to the Company.

All the reports mentioned above will include the following waiver *“Please be advised that the report has been prepared exclusively for EBRD and EIB and are provided to the Company for illustration purposes only. EBRD and EIB make no representation or warranty, express or implied, as to the accuracy or completeness of the information set forth in this report. EBRD and EIB have not independently verified any of the information contained in the report and accept no liability whatsoever for any of the information contained in the report or for any misstatement or omission therein. The report is confidential and should not be released to anyone other than the Project Management team and senior management at the Company. The report remains EBRD's property”*.

## 5. IMPLEMENTATION ARRANGEMENTS

The Consultant shall maintain close liaison and will report on all aspects of the Assignment to EBRD’s Operation Leader, Lead Procurement Specialist and Lead, Environmental Specialist). For the EIB the Consultant shall liaise with a Senior Economist Senior Loan Officer.

The Banks and/or ETYFA will provide the Consultant with copies of all relevant technical, and E&S documentation (see Task 1). This documentation is available in English. The Consultant will be expected to be able to communicate with the Company in English.

The Consultant will arrange international flights and in-country transport logistics for the Assignment, and accommodation for the monitoring team. The Company will provide the following:

- Access to the Project site;
- Relevant technical, environmental and social documentation; and
- Appropriate staff during the site visit.

It is expected that the Consultant will take due consideration of the potential health, safety and security risks associated with the Assignment including travel to the site and site visits. This includes the provision of Personal Protection Equipment to the monitoring team and travel risk assessments, if deemed necessary.

**ANNEX 1  
INDICATIVE PROCUREMENT PLAN**

| PROCUREMENT PLAN   |   |                |              |                      |                     |                     |                     |                     |                     |                      |                       |                  |             |                  |
|--|---|----------------|--------------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|-----------------------|------------------|-------------|------------------|
| Project Cyprus - Floating storage and regasification unit (FSRU) - DTM 50634 |   |                |              |                      |                     |                     |                     |                     |                     |                      |                       |                  |             |                  |
| Amount in Million EUR  |   |                |              |                      |                     |                     |                     |                     |                     |                      |                       |                  |             |                  |
| 1  | 2   | 3              | 4            | 5                    | 6                   | 7                   | 8                   | 9                   | 10                  | 11                   | 12                    | 13               | 14          | 15               |
| Nr.  | Description   | Estimated      | Financing    | Financing by others* | Financing by others | Contract             | Procurement           | Tender           | Contract    | Contract         |
|  | CapEx   | Contract Value | by EBRD      | Financier            | Amount              | Financier           | Amount              | Financier           | Amount              | Type                 | Method                | Invitation mm/yy | Award mm/yy | Completion mm/yy |
| 1  | Design, construct, procure, commission an LNG Import Terminal at Vasilikos Bay (operation and maintenance costs excluded but includes contingency). | 330.00         | 78.70        | EU CEF Grant         | 81.10               | EIB                 | 150.00              | EAC equity          | 43.00               | Works                | Open tender procedure | Oct-18           | Dec-19      | Dec-22           |
| 2  | Owner's Engineering services  | 10.50          |              |                      |                     |                     |                     |                     |                     | Consultancy Services | Open tender procedure | Mar-20           | Jul-20      | Oct-24           |
| 3  | Lender's Engineering services   | 0.50           | 0.50         |                      |                     |                     |                     |                     |                     | Consultancy Services | Competitive           | May-20           | Sep-20      | Oct-24           |
| 4  | Environmental Phosphogypsum Lagoon remediation works  | 5.00           |              |                      |                     |                     |                     |                     |                     | Works                | Open tender procedure | Feb-19           | May-19      | Apr-20           |
|  | Others:   |                |              |                      |                     |                     |                     |                     |                     |                      |                       |                  |             |                  |
| 5  | Financial interests and fees  | 8.10           | 0.80         |                      |                     |                     |                     |                     |                     |                      |                       |                  |             |                  |
|  | <b>TOTAL</b>  | <b>354.10</b>  | <b>80.00</b> |                      | <b>81.10</b>        |                     | <b>150.00</b>       |                     | <b>43.00</b>        |                      |                       |                  |             |                  |

\* An amount of 20.26m from CEF Grant will be received approximately 6 months after completion of works and issuance of completion certificate