REQUEST FOR PROPOSALS

Feasibility Study for the

Ghana Floating LNG Storage and Regasification Unit

Submission Deadline: **4:00 p.m.**

LOCAL TIME

OCTOBER 21, 2011

Submission Place: Energy Commission
Frema House
Plot No. 40, Spintex Road
Accra, Ghana

Phone: +233 302-813-763

SEALED PROPOSALS SHALL BE CLEARLY MARKED AND RECEIVED PRIOR TO THE TIME AND DATE SPECIFIED ABOVE. PROPOSALS RECEIVED AFTER SAID TIME AND DATE WILL NOT BE ACCEPTED OR CONSIDERED.

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Section 1: INTRODUCTION

The U.S. Trade and Development Agency (USTDA) has provided a grant in the amount of US$691,000 to the Energy Commission (The "Grantee") in accordance with a grant agreement dated June 13th 2011. The grant would fund the cost of goods and services required for a feasibility study ("FS") on a proposed liquefied natural gas (LNG) Storage and Re-gasification Unit (FSRU) in Ghana ("Host Country"). The FS would assist the Ministry of Energy, acting through the Energy Commission, in determining the cost effectiveness and technical viability of the emplacement of a ship-mounted liquefied natural gas import terminal, storage, and regasification unit, including the accompanying infrastructure, such as mooring and pipelines, required to transmit the gas to shore. The Grant Agreement is attached at Annex 4 for reference. The Grantee is soliciting technical proposals from qualified U.S. firms to provide expert consulting services to perform the Feasibility Study.

1.1 BACKGROUND SUMMARY

The project is a high priority for the Government of Ghana, and would help Ghana meet its rapidly growing demand for gas to fuel the country's thermal power plants. Presently, supply shortages and disruptions are leaving many power plants without a reliable source of fuel, and many power plants are substituting less environmentally friendly liquid fuels such as diesel and heavy fuel oil. An FSRU would allow the Government of Ghana to import LNG from the international market to supplement Ghana's gas supply and ensure the reliable delivery of fuel to the country's power plants, and facilitate the use of cleaner burning natural gas. The Project's total estimated cost is $200- $250 million and it would be implemented by a competitively selected private sector operator.

1.2 OBJECTIVE

The objective of this FS is to determine the cost effectiveness and economic viability of a FSRU facility in Ghana. The construction of such a facility would provide a stable supply of fuel for Ghana's thermal power plants and promote the use of clean-burning natural gas in place of less environmentally friendly and costlier liquid fuels. The project would also have positive impacts in human capacity building, in the productivity of Ghana's energy delivery systems and will create the potential for substantial U.S. exports. The Terms of Reference (TOR) for this Feasibility Study are attached as Annex 5.

1.3 PROPOSALS TO BE SUBMITTED

Technical proposals are solicited from interested and qualified U.S. firms. The administrative and technical requirements as detailed throughout the Request for Proposals (RFP) will apply. Specific proposal format and content requirements are detailed in Section 3.

The amount for the contract has been established by a USTDA grant of US $691,000. **The USTDA grant of US $691,000 is a fixed amount. Accordingly, COST will not be a factor in the evaluation and therefore, cost proposals should not be submitted**. Upon detailed evaluation of technical proposals, the Grantee shall select one firm for contract negotiations.

1.4 CONTRACT FUNDED BY USTDA

In accordance with the terms and conditions of the Grant Agreement, USTDA has provided a grant in the amount of US$691,000 to the Grantee. The funding provided under the Grant Agreement shall be used to fund the costs of the contract between the Grantee and the U.S. firm selected by the Grantee to perform the TOR. The contract must include certain USTDA Mandatory Contract Clauses relating to nationality, taxes, payment, reporting, and other matters. The USTDA nationality requirements and the USTDA Mandatory Contract Clauses are attached at Annexes 3 and 4, respectively, for reference.

Section 2: INSTRUCTIONS TO OFFERORS

2.1 PROJECT TITLE

The project is called Floating LNG Storage and Regasification Unit

2.2 DEFINITIONS

Please note the following definitions of terms as used in this RFP.

The term "Request for Proposals" means this solicitation of a formal technical proposal, including qualifications statement.

The term "Offeror" means the U.S. firm, including any and all subcontractors, which responds to the RFP and submits a formal proposal and which may or may not be successful in being awarded this procurement.

2.3 DEFINITIONAL MISSION REPORT

USTDA sponsored a Definitional Mission performed by Merklein and Associates to address technical, financial, sociopolitical, environmental and other aspects of the proposed project. A copy of the report is attached at Annex 2 for background information only. Please note that the TOR referenced in the report are included in this RFP as Annex 5.

2.4 EXAMINATION OF DOCUMENTS

Offerors should carefully examine this RFP. It will be assumed that Offerors have done such inspection and that through examinations, inquiries and investigation they have become familiarized with local conditions and the nature of problems to be solved during the execution of the Feasibility Study.

Offerors shall address all items as specified in this RFP. Failure to adhere to this format may disqualify an Offeror from further consideration.

Submission of a proposal shall constitute evidence that the Offeror has made all the above mentioned examinations and investigations, and is free of any uncertainty with respect to conditions which would affect the execution and completion of the Feasibility Study.

2.5 PROJECT FUNDING SOURCE

The Feasibility Study will be funded under a grant from USTDA. The total amount of the grant is not to exceed US$691,000.

2.6 RESPONSIBILITY FOR COSTS

Offeror shall be fully responsible for all costs incurred in the development and submission of the proposal. Neither USTDA nor the Grantee assumes any obligation as a result of the issuance of this RFP, the preparation or submission of a proposal by an Offeror, the evaluation of proposals, final selection or negotiation of a contract.

2.7 TAXES

Offerors should submit proposals that note that in accordance with the USTDA Mandatory Contract Clauses, USTDA grant funds shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in the Host Country.

2.8 CONFIDENTIALITY

The Grantee will preserve the confidentiality of any business proprietary or confidential information submitted by the Offeror, which is clearly designated as such by the Offeror, to the extent permitted by the laws of the Host Country.

2.9 ECONOMY OF PROPOSALS

Proposal documents should be prepared simply and economically, providing a comprehensive yet concise description of the Offeror's capabilities to satisfy the requirements of the RFP. Emphasis should be placed on completeness and clarity of content.

2.10 OFFEROR CERTIFICATIONS

The Offeror shall certify (a) that its proposal is genuine and is not made in the interest of, or on behalf of, any undisclosed person, firm, or corporation, and is not submitted in conformity with, and agreement of, any undisclosed group, association, organization, or corporation; (b) that it has not directly or indirectly induced or solicited any other Offeror to put in a false proposal; (c) that it has not solicited or induced any other person, firm, or corporation to refrain from submitting a proposal; and (d) that it has not sought by collusion to obtain for itself any advantage over any other Offeror or over the Grantee or USTDA or any employee thereof.

2.11 CONDITIONS REQUIRED FOR PARTICIPATION

Only U.S. firms are eligible to participate in this tender. However, U.S. firms may utilize subcontractors from the Host Country for up to 20 percent of the amount of the USTDA grant for

specific services from the TOR identified in the subcontract. USTDA's nationality requirements, including definitions, are detailed in Annex 3.

2.12 LANGUAGE OF PROPOSAL

All proposal documents shall be prepared and submitted in English, and only English.

2.13 PROPOSAL SUBMISSION REQUIREMENTS

The **Cover Letter** in the proposal must be addressed to:

Mr. Alfred Ahenkorah
Energy Commission
Frema House
Plot No. 40, Spintex Road
Accra, Ghana

Phone: +233 302-813-763
Email: ahenkorah@gmail.com

An Original and eight (8) copies of your proposal must be received at the above address no later than 4:00 p.m. on October 21, 2011.

Proposals may be either sent by mail, overnight courier, or hand-delivered. Whether the proposal is sent by mail, courier or hand-delivered, the Offeror shall be responsible for actual delivery of the proposal to the above address before the deadline. Any proposal received after the deadline will be returned unopened. The Grantee will promptly notify any Offeror if its proposal was received late.

Upon timely receipt, all proposals become the property of the Grantee.

2.14 PACKAGING

The original and each copy of the proposal must be sealed to ensure confidentiality of the information. The proposals should be individually wrapped and sealed, and labeled for content including "original" or "copy number x"; the original and eight (8) copies should be collectively wrapped and sealed, and clearly labeled.

Neither USTDA nor the Grantee will be responsible for premature opening of proposals not properly wrapped, sealed and labeled.

2.15 AUTHORIZED SIGNATURE

The proposal must contain the signature of a duly authorized officer or agent of the Offeror empowered with the right to bind the Offeror.

2.16 EFFECTIVE PERIOD OF PROPOSAL

The proposal shall be binding upon the Offeror for 60 days after the proposal due date, and Offeror may withdraw or modify this proposal at any time prior to the due date upon written request, signed in the same manner and by the same person who signed the original proposal.

2.17 EXCEPTIONS

All Offerors agree by their response to this RFP announcement to abide by the procedures set forth herein. No exceptions shall be permitted.

2.18 OFFEROR QUALIFICATIONS

As provided in Section 3, Offerors shall submit evidence that they have relevant past experience and have previously delivered advisory, feasibility study and/or other services similar to those required in the TOR, as applicable.

2.19 RIGHT TO REJECT PROPOSALS

The Grantee reserves the right to reject any and all proposals.

2.20 PRIME CONTRACTOR RESPONSIBILITY

Offerors have the option of subcontracting parts of the services they propose. The Offeror's proposal must include a description of any anticipated subcontracting arrangements, including the name, address, and qualifications of any subcontractors. USTDA nationality provisions apply to the use of subcontractors and are set forth in detail in Annex 3. The successful Offeror shall cause appropriate provisions of its contract, including all of the applicable USTDA Mandatory Contract Clauses, to be inserted in any subcontract funded or partially funded by USTDA grant funds.

2.21 AWARD

The Grantee shall make an award resulting from this RFP to the best qualified Offeror, on the basis of the evaluation factors set forth herein. The Grantee reserves the right to reject any and all proposals received and, in all cases, the Grantee will be the judge as to whether a proposal has or has not satisfactorily met the requirements of this RFP.

2.22 COMPLETE SERVICES

The successful Offeror shall be required to (a) provide local transportation, office space and secretarial support required to perform the TOR if such support is not provided by the Grantee; (b) provide and perform all necessary labor, supervision and services; and (c) in accordance with best technical and business practice, and in accordance with the requirements, stipulations, provisions and conditions of this RFP and the resultant contract, execute and complete the TOR to the satisfaction of the Grantee and USTDA.

2.23 INVOICING AND PAYMENT

Deliverables under the contract shall be delivered on a schedule to be agreed upon in a contract with the Grantee. The Contractor may submit invoices to the designated Grantee Project Director in accordance with a schedule to be negotiated and included in the contract. After the Grantee's approval of each invoice, the Grantee will forward the invoice to USTDA. If all of the requirements of USTDA's Mandatory Contract Clauses are met, USTDA shall make its respective disbursement of the grant funds directly to the U.S. firm in the United States. All payments by USTDA under the Grant Agreement will be made in U.S. currency. Detailed provisions with respect to invoicing and disbursement of grant funds are set forth in the USTDA Mandatory Contract Clauses attached in Annex 4.

Section 3: PROPOSAL FORMAT AND CONTENT

To expedite proposal review and evaluation, and to assure that each proposal receives the same orderly review, all proposals must follow the format described in this section.

Proposal sections and pages shall be appropriately numbered and the proposal shall include a Table of Contents. Offerors are encouraged to submit concise and clear responses to the RFP. Proposals shall contain all elements of information requested without exception. Instructions regarding the required scope and content are given in this section. The Grantee reserves the right to include any part of the selected proposal in the final contract.

The proposal shall consist of a technical proposal only. A cost proposal is NOT required because the amount for the contract has been established by a USTDA grant of US$691,000, which is a fixed amount.

Offerors shall submit one (1) original and eight (8) copies of the proposal. Proposals received by fax cannot be accepted.

Each proposal must include the following:

Transmittal Letter,
Cover/Title Page,
Table of Contents,
Executive Summary,
Company Information,
Organizational Structure, Management Plan, and Key Personnel,
Technical Approach and Work Plan, and
Experience and Qualifications.

Detailed requirements and directions for the preparation of the proposal are presented below.

3.1 EXECUTIVE SUMMARY

An Executive Summary should be prepared describing the major elements of the proposal, including any conclusions, assumptions, and general recommendations the Offeror desires to make. Offerors are requested to make every effort to limit the length of the Executive Summary to no more than five (5) pages.

3.2 COMPANY INFORMATION

For convenience, the information required in this Section 3.2 may be submitted in the form attached in Annex 6 hereto.

3.2.1 Company Profile

Provide the information listed below relative to the Offeror's firm. If the Offeror is proposing to subcontract some of the proposed work to another firm(s), the information requested in sections 3.2.5 and 3.2.6 below must be provided for each subcontractor.

1. Name of firm and business address (street address only), including telephone and fax numbers.

2. Year established (include predecessor companies and year(s) established, if appropriate).

3. Type of ownership (e.g. public, private or closely held).

4. If private or closely held company, provide list of shareholders and the percentage of their ownership.

5. List of directors and principal officers (President, Chief Executive Officer, Vice-President(s), Secretary and Treasurer; provide full names including first, middle and last). Please place an asterisk (*) next to the names of those principal officers who will be involved in the Feasibility Study.

6. If Offeror is a subsidiary, indicate if Offeror is a wholly-owned or partially-owned subsidiary. Provide the information requested in items 1 through 5 above for the Offeror's parent(s).

7. Project Manager's name, address, telephone number, e-mail address and fax number.

3.2.2 Offeror's Authorized Negotiator

Provide name, title, address, telephone number, e-mail address and fax number of the Offeror's authorized negotiator. The person cited shall be empowered to make binding commitments for the Offeror and its subcontractors, if any.

3.2.3 Negotiation Prerequisites

1. Discuss any current or anticipated commitments which may impact the ability of the Offeror or its subcontractors to complete the Feasibility Study as proposed and reflect such impact within the project schedule.

2. Identify any specific information which is needed from the Grantee before commencing contract negotiations.

3.2.4 Offeror's Representations

If any of the following representations cannot be made, or if there are exceptions, the Offeror must provide an explanation.

1. Offeror is a corporation *[insert applicable type of entity if not a corporation]* duly organized, validly existing and in good standing under the laws of the State of _____. The Offeror has all the requisite corporate power and authority to conduct its business as presently conducted, to submit this proposal, and if selected, to execute and deliver a contract to the Grantee for the performance of the Feasibility Study. The Offeror is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment, or ineligible for the award of contracts by any federal or state governmental agency or authority.

2. The Offeror has included, with this proposal, a certified copy of its Articles of Incorporation, and a certificate of good standing issued within one month of the date of its proposal by the State of _____. The Offeror commits to notify USTDA and the Grantee if they become aware of any change in their status in the state in which they are incorporated. USTDA retains the right to request an updated certificate of good standing.

3. Neither the Offeror nor any of its principal officers have, within the three-year period preceding this RFP, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.

4. Neither the Offeror, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 3 above.

5. There are no federal or state tax liens pending against the assets, property or business of the Offeror. The Offeror, has not, within the three-year period preceding this RFP, been notified of any delinquent federal or state taxes in an amount that exceeds $3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.

6. The Offeror has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law. The Offeror has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.

The selected Offeror shall notify the Grantee and USTDA if any of the representations included in its proposal are no longer true and correct at the time of its entry into a contract with the Grantee.

3.2.5 Subcontractor Profile

1. Name of firm and business address (street address only), including telephone and fax numbers.

2. Year established (include predecessor companies and year(s) established, if appropriate).

3.2.6 Subcontractor's Representations

If any of the following representations cannot be made, or if there are exceptions, the Subcontractor must provide an explanation.

1. Subcontractor is a corporation *[insert applicable type of entity if not a corporation]* duly organized, validly existing and in good standing under the laws of the State of _____. The subcontractor has all the requisite corporate power and authority to conduct its business as presently conducted, to participate in this proposal, and if the Offeror is selected, to execute and deliver a subcontract to the Offeror for the performance of the Feasibility Study and to perform the Feasibility Study. The subcontractor is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment or ineligible for the award of contracts by any federal or state governmental agency or authority.

2. Neither the subcontractor nor any of its principal officers have, within the three-year period preceding this RFP, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.

3. Neither the subcontractor, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 2 above.

4. There are no federal or state tax liens pending against the assets, property or business of the subcontractor. The subcontractor, has not, within the three-year period preceding this RFP, been notified of any delinquent federal or state taxes in an amount that exceeds $3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.

5. The subcontractor has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law. The subcontractor has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.

The selected subcontractor shall notify the Offeror, Grantee and USTDA if any of the representations included in this proposal are no longer true and correct at the time of the Offeror's entry into a contract with the Grantee.

3.3 ORGANIZATIONAL STRUCTURE, MANAGEMENT, AND KEY PERSONNEL

Describe the Offeror's proposed project organizational structure. Discuss how the project will be managed including the principal and key staff assignments for this Feasibility Study. Identify the Project Manager who will be the individual responsible for this project. The Project Manager shall have the responsibility and authority to act on behalf of the Offeror in all matters related to the Feasibility Study.

Provide a listing of personnel (including subcontractors) to be engaged in the project, including both U.S. and local subcontractors, with the following information for key staff: position in the project; pertinent experience, curriculum vitae; other relevant information. If subcontractors are to be used, the Offeror shall describe the organizational relationship, if any, between the Offeror and the subcontractor.

A manpower schedule and the level of effort for the project period, by activities and tasks, as detailed under the Technical Approach and Work Plan shall be submitted. A statement confirming the availability of the proposed project manager and key staff over the duration of the project must be included in the proposal.

3.4 TECHNICAL APPROACH AND WORK PLAN

Describe in detail the proposed Technical Approach and Work Plan (the "Work Plan"). Discuss the Offeror's methodology for completing the project requirements. Include a brief narrative of the Offeror's methodology for completing the tasks within each activity series. Begin with the information gathering phase and continue through delivery and approval of all required reports.

Prepare a detailed schedule of performance that describes all activities and tasks within the Work Plan, including periodic reporting or review points, incremental delivery dates, and other project milestones.

Based on the Work Plan, and previous project experience, describe any support that the Offeror will require from the Grantee. Detail the amount of staff time required by the Grantee or other participating agencies and any work space or facilities needed to complete the Feasibility Study.

3.5 EXPERIENCE AND QUALIFICATIONS

Provide a discussion of the Offeror's experience and qualifications that are relevant to the objectives and TOR for the Feasibility Study. If a subcontractor(s) is being used, similar information must be provided for the prime and each subcontractor firm proposed for the project. The Offeror shall provide information with respect to relevant experience and qualifications of key staff proposed. The Offeror shall include letters of commitment from the individuals proposed confirming their availability for contract performance.

As many as possible but not more than six (6) relevant and verifiable project references must be provided for each of the Offeror and any subcontractor, including the following information:

Project name,
Name and address of client (indicate if joint venture),
Client contact person (name/ position/ current phone and fax numbers),
Period of Contract,
Description of services provided,
Dollar amount of Contract, and
Status and comments.

Offerors are strongly encouraged to include in their experience summary primarily those projects that are similar to or larger in scope than the Feasibility Study as described in this RFP.

Section 4: AWARD CRITERIA

Individual proposals will be initially evaluated by a Procurement Selection Committee of representatives from the Grantee. The Committee will then conduct a final evaluation and completion of ranking of qualified Offerors. The Grantee will notify USTDA of the best qualified Offeror, and upon receipt of USTDA's no-objection letter, the Grantee shall promptly notify all Offerors of the award and negotiate a contract with the best qualified Offeror. If a satisfactory contract cannot be negotiated with the best qualified Offeror, negotiations will be formally terminated. Negotiations may then be undertaken with the second most qualified Offeror and so forth.

The selection of the Contractor will be based on the following criteria:

Evaluation Criteria

The criteria listed below will be used to rate the proposals received by the Grantee:

Technical Proposal **35 Points**

- Description of the approach for developing a reasonable forecast of future power requirements and corresponding fuel requirements, including an analysis regarding the availabilities of gas from the WAGP and from off-shore oil and gas fields and of the likelihood of power interruptions caused by insufficient or disrupted gas flows (15).

- Technical approach for comparing the economic viability of using LNG for normal and emergency use as a fuel for power, and comparing the relative merits of a land-based system versus a floating storage and regasification system using a newly constructed ship, a converted LNG carrier, or barges as the floating supply platform. Recommending suitable mooring facilities and on-land facilities for receiving the LNG-origin gas on shore. (10).

- Description and approach to identifying need for and execution of diverse agreements required to assure flow of LNG from its source, conversion, and on-shipping the resulting natural gas to the Ghanaian infrastructure, including the WAGP. (10)

Personnel and Management Plan **35 Points**

- Experience and expertise of the Project Manager in designing and supervising the construction of LNG transport and regasification facilities, and in handling the logistics of a complex feasibility project (15).

- Proposed feasibility study completion timeline (10).

- Expertise in selecting experienced staff capable of fulfilling the various functions of each component of the program as spelled out in the TOR, including proposed local subcontractors, if applicable (10).

Firm Technical Capability and Past Performance **30 Points**

- Experience and years of performance in consulting in the area of shallow-water oil and gas platforms, LNG liquefaction, storage, and regasification (10).

- Experience working with international oil and gas off-shore producers and LNG carriers and providing technical assistance and training to them (10).

- Knowledge of local market and previous work experience in Ghana and sub-Saharan Africa (10).

Proposals that do not include all requested information may be considered non-responsive.

Price will not be a factor in contractor selection.

ANNEX 1

Mr. Alfred Ahenkorah; Energy Commission; Frema House; Plot No. 40, Spintex Road; Accra, Ghana; Phone: +233 302-813-763

Ghana: Feasibility Study on the Floating LNG Storage and Regasification Unit

POC Nina Patel, USTDA, 1000 Wilson Boulevard, Suite 1600, Arlington, VA 22209-3901, Tel: (703) 875-4357, Fax: (703) 875-4009. The Ghana Energy Commission (Grantee), invites submission of qualifications and proposal data (collectively referred to as the "Proposal") from interested U.S. firms which are qualified on the basis of experience and capability to develop a feasibility study on the deployment of a Floating Liquefied Natural Gas (LNG) Storage and Regasification Unit in Ghana.

The U.S. Trade and Development Agency (USTDA) has provided a grant in the amount of US $691,000 to the Grantee in accordance with a grant agreement dated June 13th 2011 to fund the Feasibility Study (FS). The FS would assist the Grantee in determining the cost effectiveness and technical viability of the emplacement of a ship-mounted liquefied natural gas import terminal, storage, and regasification unit, including the accompanying infrastructure, such as mooring and pipelines, required to transmit the gas to shore. The Grantee is soliciting technical proposals from qualified U.S. firms to provide expert consulting services to perform the Feasibility Study.

The project is a high priority for the Government of Ghana, and would help Ghana meet its rapidly growing demand for gas to fuel the country's thermal power plants. Presently, supply shortages and disruptions are leaving many power plants without a reliable source of fuel, and many power plants are substituting less environmentally friendly liquid fuels such as diesel and heavy fuel oil. The project would allow the Government of Ghana to import LNG from the international market to supplement Ghana's gas supply and ensure the reliable delivery of fuel to the country's power plants, and facilitate the use of cleaner burning natural gas. The Project's total estimated cost is $200- $250 million and it would be implemented by a competitively selected private sector operator.

The U.S. firm selected will be paid in U.S. dollars from a $691,000 grant to the Grantee from the U.S. Trade and Development Agency (USTDA).

A detailed Request for Proposals (RFP), which includes requirements for the Proposal, the Terms of Reference, and a background definitional mission/desk study report are available from USTDA, at 1000 Wilson Boulevard, Suite 1600, Arlington, VA 22209-3901. To request the RFP in PDF format, please go to: https://www.ustda.gov/USTDA/FedBizOpps/RFP/rfpform.asp. Requests for a mailed hardcopy version of the RFP may also be faxed to the IRC, USTDA at 703-875-4009. In the fax, please include your firm's name, contact person, address, and telephone number. Some firms have found that RFP materials sent by U.S. mail do not reach them in time for preparation of an adequate response. Firms that want USTDA to use an overnight delivery service should include the name of the delivery service and your firm's account number in the request for the RFP. Firms that want to send a courier to USTDA to retrieve the RFP should allow one hour after faxing the request to USTDA before scheduling a pick-up. Please note that no telephone requests for the RFP will be honored.

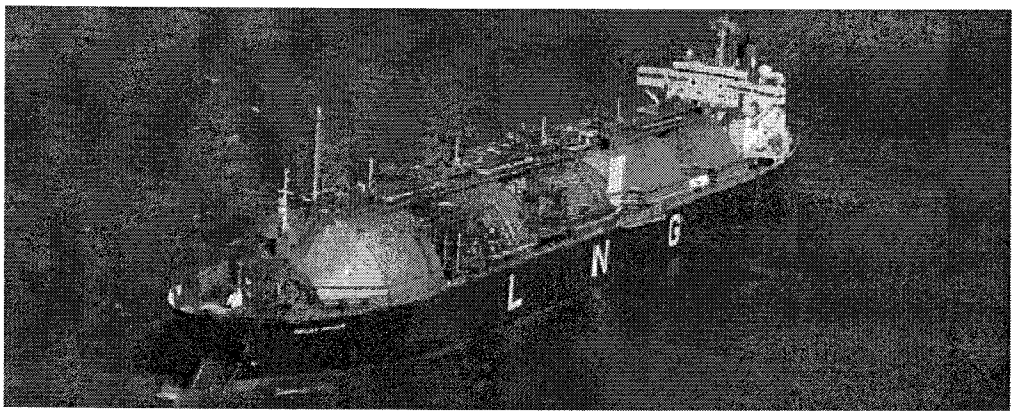
Please check your internal fax verification receipt. Because of the large number of RFP requests, USTDA cannot respond to requests for fax verification. Requests for RFPs received before 4:00 PM will be mailed the same day. Requests received after 4:00 PM will be mailed the following day. Please check with your courier and/or mail room before calling USTDA.

Only U.S. firms and individuals may bid on this USTDA financed activity. Interested firms, their subcontractors and employees of all participants must qualify under USTDA's nationality requirements as of the due date for submission of qualifications and proposals and, if selected to carry out the USTDA-financed activity, must continue to meet such requirements throughout the duration of the USTDA-financed activity. All goods and services to be provided by the selected firm shall have their nationality, source and origin in the U.S. or host country. The U.S. firm may use subcontractors from the host country for up to 20 percent of the USTDA grant amount. Details of USTDA's nationality requirements and mandatory contract clauses are also included in the RFP.

Interested U.S. firms should submit their Proposal in English directly to the Grantee by 4:00 p.m. local time, October 21, 2011 at the above address. Evaluation criteria for the Proposal are included in the RFP. Price will not be a factor in contractor selection, and therefore, cost proposals should NOT be submitted. The Grantee reserves the right to reject any and/or all Proposals. The Grantee also reserves the right to contract with the selected firm for subsequent work related to the project. The Grantee is not bound to pay for any costs associated with the preparation and submission of Proposals.

ANNEX 2

1 – FLOATING LNG STORAGE AND REGASIFICATION UNIT



Golar Spirit, the world's first FSRU, en route to Pecem in Brazil in 2009

A. - Executive Summary

The objective of this Definitional Mission to Ghana was to examine the Country's electric power sector and to identify and recommend to the US Trade and Development Agency promising investment prospects and appropriate technical assistance or training opportunities that would contribute to the Country's ongoing efforts to promote economic development and alleviate poverty.

This proposal recommends a feasibility study (Study) for the construction and emplacement of a Floating LNG Storage and Regasification Unit (FSRU). While several construction modes will be reviewed and compared as to their cost effectiveness, it appears that the method that will emerge as the most promising will involve the conversion of an existing LNG tanker to an FSRU, which is to be emplaced off-shore, most likely near one of Ghana's two power generating centers of Tema or Takoradi.

The implementation of the FSRU Project would achieve two things. First, the unit would remove the impediment of fuel starvation for power plants in Ghana and therefore assure the unfettered growth of the electric sector, and second, it would open up an emergency line of support for inexpensive natural gas fuels for power generation that would otherwise have to be met by switching to very expensive liquid fuels such as light crude oil, heavy fuel oil, or diesel fuel. This would involve not just the deployment of the converted FSRU, most likely on a mid- to long-term lease arrangement, it would also involve considerable construction work to facilitate the absorption in Ghana of the LNG-origin natural gas that has been regasified on the FSRU. Included in that peripheral construction effort would be the building of a jetty or a turret-type mooring facility capable of accommodating over-jetty or side-by-side berthing for the FSRU proper and the LNG supply ship; ship-to-ship LNG transfer facilities and a sub sea pipeline to take the regasified LNG to shore, as well as metering and gas transport facilities to take the gas to its destination in Ghana. That would be a short line to one or several nearby thermal power generating units and/or to the West African Gas Pipeline (WAGP), which would open the possibility of transferring the gas to any destination that the WAGP has access to.

If approved by USTDA, the Energy Commission (EC), which is the technical regulatory agency for the energy sector, would be the Grantee while the Bulk Oil Storage and Transportation Company Limited, (BOST), a government-owned enterprise, would be a key stakeholder for the Study. The Energy Commission and BOST senior officials have indicated that this is a high priority for ensuring adequate

fuel supplies for the Country. Similar approval has been voiced by the Ministry of Energy and various other State Organizations in the power sector.

The Government of Ghana would like this project to be taken on by a private investor, perhaps with BOST participation through a token carried-equity interest. The conversion of the LNG carrier to an FSRU and the construction of off-shore and on-land gas receiving facilities will involve significant costs, and will provide export opportunities for US Companies, between $35 and $75 million. The mobile components of the project, the FSRU and LNG supply carriers, will likely be based on a leasing arrangement that may or may not include the construction of a jetty or turret. If the jetty or turret is included in the lease, the investor/lessor will assume the cost of constructing it. The stationary equipment from the receiving jetty (or from the flange to the sub-sea pipeline if the jetty is included in the leasing contract) and the sub-sea gas pipeline, all the way to injection of the gas into the Ghanaian infrastructure needs to be done as a separate project using a different investor. This will probably be done through the expedient of a Special Purpose Vehicle (SPV) or a regular Public-Private Partnership that will eventually turn over its facilities to the host government at the end of the LNG leasing arrangement.

While the prospects for US exports to be generated through this USTDA project are good, perhaps the strongest selling point is the developmental impact this facility will have on the entire country. This includes the reduction, and quite possibly the elimination, of fuel shortfalls that have occurred in the past and that turn out to be very expensive to the country, both in terms of economic losses suffered by the affected areas and of the need to bridge over the shortfall by switching to expensive liquid fuels. In addition, the strengthening of the electric power system and its extension to previously un-powered regions will have an enormous impact on all of USTDA's developmental criteria: infrastructure, human capacity building, market oriented reform, and technology transfer and productivity improvement. The Project will also boost local and federal tax revenues. Thus, on both counts, trade and development, support for the Project appears to be justified under USTDA guidelines.

The Project will have measurably beneficial environmental impacts. The reliance on natural gas of all Ghanaian thermal power plants under normal and emergency operations will eliminate the current use of highly polluting liquid fuels and will reduce, the use of diesel fueled private-sector back-up power generators. As to the environmental damage caused by the construction and operation of the offshore and onshore receiving station facilities, the offshore jetty or turret will rest on pylons which require minimum earth movement and the onshore metering and pipeline connections only involve a few miles of construction. As to safety, methane gas is lighter than air and will quickly disperse upwards. The gas, unlike heavy hydrocarbon gases, is generally non-explosive.

As to US labor, the direct impact of constructing the power line will be the potential creation of one year of work for up to 1,000 US workers. More importantly, no US jobs will be exported from or eliminated in the US because of the Project.

B. - Project Description

The objective of the Definitional Mission to Ghana was to examine the Country's Power Sector and to recommend to the US Trade and Development Agency (USTDA) three promising investment projects and/or appropriate technical assistance opportunities that would accelerate the country's retreat from poverty. This is the first of the three projects called for under this arrangement.

The DM Team recommends a feasibility study for the construction and deployment of a Floating Storage and Regasification Unit (FSRU) to be moored off the Ghanaian Coast, capable of storing significant volumes of LNG, reconverting it to natural gas and shipping it to shore for use as fuel for clean-burning thermal power plants. The attraction of this floating gas supply platform is twofold. First, its ability to

keep pace with the rapidly growing fuel demand of the Ghanaian electric sector under normal operating conditions, in the face of limited supplies from the West African Gas Pipeline and from Ghanaian off-shore oil and gas fields and, second, its capacity to serve as a mitigating emergency supply system in the event gas flow from the West African Gas Pipeline is interrupted, as it has been repeatedly in the early stages when the line was mostly running on "natural" pressure, meaning well head or gas plant outlet pressure at the pipeline inlet.

With the last significant hydro-power plant, Bui, nearing completion, Ghana will have exhausted 52% of its hydro-power capacity. There will be no more prospects for hydro-power plants in the 100-plus MW capacity range. With nuclear plants not under consideration for the foreseeable future, the only source of electricity capable of making a realistic contribution on the national scale, and at reasonable prices, will be thermal power. Thus, for better or for worse, Ghana's future growth in power supply will depend on thermal units.

At present, all but one of the existing thermal power plants have dual or triple fuel capacity, and all future thermal power plants are scheduled to have it. While on the face of it this looks like a reasonable strategy to bridge emergency situations such as the temporary loss of natural gas supplies, the reality is that the country simply cannot afford to fuel its current and future thermal power plants with liquid fuels such as light crude oil, heavy fuel oil or diesel oil. Given the two-to-one price advantage of delivered LNG-origin gas (currently estimated at $6.00 per MMBTU) compared to liquid oil ($14.00-16.00 per MMBTU), Ghana would be hard put to meet a lasting interruption of natural gas supplies by switching to liquid oil fuels. History abounds with stories of liquid-fuel power plants that had to be shut down in developing countries for lack of funds for fuel purchases. A recent USTDA Feasibility Study of the Limbé power plant in Cameroon is one such example, where part of the project entails the conversion of an 85 MW liquid-fuel power plant to natural gas.

As of this writing, Ghana's available thermal capacity is about 760 MW. Assuming that the country's entire thermal capacity runs on natural gas at a fuel consumption rate of 25 MMCF/D per 100 MW (single cycle gas turbines), and an 85% capacity utilization, this translates to a daily fuel requirement of 162 MMCF/D. Using $6.00 per MCF (or per million BTU, which is for all practical purposes the same thing)[1], this corresponds to a daily fuel bill of $0.97 million. Assuming further that the heat content of the liquid-fuel mix delivered to Ghana is 5.8 million BTU/Bbl and the price of oil and oil products is $84/Bbl, the price advantage of gas over crude oil is 2.4. Hence the corresponding daily liquid-fuel bill would be $2.3 million if all of the 2010 thermal generating capacity in Ghana were fueled by liquid fuels, and the daily savings of using gas over liquid fuels would be $1.33 million per day. It would be double that amount in 1215, when thermal capacity is assumed to be doubled, for savings with gas over crude oil of $2.66 million per day or $901 million per year.

No wonder, the LNG Project has been declared a high-priority by the Grantee, the Energy Commission, as well as the Bulk Oil Storage and Transportation Company Limited (BOST), which has recently been awarded the responsibility of serving as the country's natural gas wholesale marketer. BOST is a Government-owned company that emerged as a result of Ghana's move towards a market-oriented energy regime. The FSRU Project has also been endorsed by the Voltage River Authority, Ghana's Government-owned power generation company that is desperate for fuel for power plants, any fuel, but especially clean-burning and relatively inexpensive fuel such as natural gas. The Ministry of Energy, which is the country's lead agency for power has also endorsed the project.

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[1] This is slightly above the WAGP contract price of $5.50 per MCF which is subject to escalation through indexation on the Henry Hub spot price for crude oil

The reality of natural gas supply shortages is of course more complex. One complicating factor is the fact that off-shore gas will come into play in a year or two, at flow rates that are at the moment ill defined and at prices that continue to be a matter of debate in official circles. Another factor is that the eventual occurrence of a WAGP shut-down is not a question of whether but when and how frequently. In short, without an alternative source of reasonably-priced gas supplies, the electric sector in Ghana will be very exposed.

Project Lay-out

Floating Storage and Regasification Units are the product of a brand new industry that has developed from the Liquid Natural Gas carrier industry. Starting in 1959, the world's first ocean-going LNG tanker, *The Methane Pioneer*, a converted World War II liberty freighter, carried LNG from Louisiana to the UK for some 27 years. With practicality, commerciality and safety of LNG shipments proven (there has never been an accident or death aboard an LNG tanker), the market expanded to where, today, LNG shipments represent about 8% of the global natural gas demand. In the United States alone, the US Energy Information Administration estimated 2007 LNG imports at 864 BCF, before it declined nearly by half two years later.

The US decline in LNG demand was spurred by the discovery and development of huge reserves of deep off-shore gas in the Gulf of Mexico and of shale gas in the Continental US. In the rest of the world, the volume of LNG trading was not significantly affected although, with one important buyer all but removed from the market, there were steep LNG price declines. With abundant new off-shore discoveries in the Gulf of Mexico and shale methane gas on the North-American Continent, world LNG prices are expected to remain low for many years to come. This makes the Ghanaian LNG Project attractive, especially since the LNG tanker conversion to an FSRU recommended here can be accomplished in a short period of time, on the order of 9-12 months.

Shipping LNG over large distances requires the development of an expensive and capital intensive infrastructure. Dry natural gas (95-plus % methane) has first to be collected and brought to a central liquefaction plant near a coast where it is refrigerated to minus 263 degrees Fahrenheit. It is then loaded on specifically designed cargo vessels and shipped to a receiving station, also on shore, or to floating terminals near the shore, and from there to land. There the LNG is stored in liquid form in refrigerated tanks, from where it is drawn as needed, reconverted to the gaseous state and on-shipped via conventional gas pipelines. Until the recent past, liquefaction and regasification plants were huge, expensive, and location-bound.

That changed a year ago, when the first Floating Storage and Regasification Unit was deployed in Brazil (June 2009). As a result, the receiving country no longer needs to build regasification and storage facilities on shore. Regasification facilities can now be built on a vessel already equipped with sizable on-board storage facilities. The vessel is moored near the shore and re-supplied as needed through a conventional LNG carrier. The FSRU does all of the storing and regasification and the receiving country only needs a short pipeline to shore, metering facilities on shore to measure the incoming gas, and a pipeline to on-ship the gas to end-users. In Ghana, where essentially all thermal power plants are right on shore, this appears to be a viable solution in freeing the country from its dependence on expensive heavy fuel oil, light crude oil or diesel fuels.

In addition, the cash expense of building an FSRU facility can be eased as these vessels are available on a lease basis. Also, an organized LNG spot market has developed that allows for competitive purchases. Whether reliance on spot markets is commendable in the case of Ghana is not clear. That will have to be assessed as part of the Contractor's obligation under the feasibility study terms of reference.

Finally, the mobile nature of the FSRU system allows for much shorter contracts, say five to ten years-plus, whereas the very costly on-land facilities are generally under contract for the 25-30 year design life of the liquefaction plant which cannot be moved to another location by the simple act of starting a marine engine.

FSRU's come in different sizes well beyond the needs of Ghana's electric sector. The critical data to note, and for the Contractor to specify, are storage capacity and regasification capacity. One common size found in the literature gave a storage capacity of 125,000-138,000 cubic meters and a maximum regasification capacity of 450 MMCF/D. Using the upper-limit storage capacity of 138,000 cubic meters and a more cautious maximum regasification rate of 400 MMCF/D would result in refueling cycles as follows:

- 14 days under normal operating conditions based on non-emergency deliveries of around 200 MMCF/D, and
- 7 days in an emergency such as the shut-off of all gas from other sources, using the vessel's maximum regasification rate of 400 MMCF/D.

The purchase of 200 additional MMCF/D of emergency gas would have to be done through spot markets, which are readily available. However, the logistics of ultra-short-term emergency deliveries would be complex and difficult at times, and spot market prices can be substantially higher than longer-term contract prices, but they are still expected to be generally lower than liquid fuel prices, based on comparable BTU deliveries.

C. - Project Sponsor's Capabilities and Commitment.

The Energy Commission's mission is to provide leadership and collaborate with the leading energy providers such as VRA, TOR, BOST, ECG, GridCo and Independent Power Producers (IPPs) to effectively and efficiently create an enabling environment for excellence and fair competition in energy service delivery. The Energy Commission consists of seven Commissioners appointed by the President of Ghana acting in consultation with the Council of State of the Republic. The EC has the following functions:

- To recommend national policies for the development and utilization of indigenous energy resources;
- To advise the Minister responsible for Energy on national policies for the efficient and safe supply of electricity, natural gas, and petroleum products having regard to the economy;
- To provide the legal, regulatory and supervisory framework for providers of energy in Ghana (i.e. licensing, prescription of uniform rules of practice by legislative instrument, inspection, monitoring and compliance with rules);
- To prepare, review and update from time to time indicative national plans to ensure that all reasonable demands for energy are met;
- To secure a comprehensive database for national decision making as regards the development and utilization of energy resources available to the nation; and
- To promote competition in the energy market and enforce standards of performance.

Neither the EC nor BOST has any LNG experience or capability at this time. No one in Africa does, as there are no LNG regasification marine terminals on the African continent. Apart from the project here under discussion, four proposals for FSRU regasification facilities in Africa are currently on the books, one in Kenya, one in South Africa, and two on the Canary Islands. To provide oversight and regulatory

experience to Ghanaian authorities, training courses have been made an explicit part of the LNG facilities here under discussion.

As to commitment, the Grantee and BOST have labeled the FSRU Project a high priority and, as mentioned earlier, the country's Government-owned power generation company (the Voltage River Authority) and the Energy Ministry are supportive.

D. - Implementation Financing.

The Government of Ghana does not have the resources to invest directly into the FSRU Project, but it does have an established policy that allows outside investors to do so. A leasing agreement for all floating equipment, possibly including the construction of a jetty or turret, will be one part of an FSRU arrangement, the other part being a direct investment to construct and operate stationary receiving facilities through a private investor or a Public-Private Partnership with a small carried interest for Ghana. That has been discussed with BOST, which saw no problem in principle with such an arrangement. BOST mentioned a "Letter of Comfort" that the Government of Ghana would be prepared to issue. That is not a sovereign loan guarantee. Our understanding is that the Government of Ghana has shied away from issuing these, based on IMF guidance.

Depending on ownership and US content, Ghana would be eligible for Ex-Im Bank support, including loans up to 12-15 years, that would be available to US and foreign companies, including foreign leasing companies, for US-made equipment, provided that the transaction is guaranteed by the full faith and credit of the host government, or if the private sector buyers of the US goods and services are adequately capitalized to make the transaction sufficiently creditworthy. That was confirmed by Mr. Benjamin Todd, Business Development Officer at the US Ex-Im Bank in a recent telephone/email exchange.

The Overseas Private Investment Corporation is similarly supportive, having just (April 10, 2010) approved $100 million for the establishment of a private equity investment fund designed to making equity investments in nascent businesses with high growth potential. The fund will target sectors that are central to the function of African economies, and therefore geared to domestic economic growth. Sectors targeted for the fund's investments include **power and utilities**, among others. The fund's investments will focus on Nigeria, **Ghana**, Kenya, Angola, and South Africa, as well as Cote D'Ivoire, Tanzania, and Uganda.

Various multilateral funding sources may also be available to support funding requirements. The African Development Bank, and the World Bank come to mind as important multilateral sources for outside funding. Regarding private investment, the DM Team has discussed the Project with several interested US and Ghanaian investors which have successfully financed energy sector projects in Africa.

E. – U S Export Potential

The floating storage and regasification industry is new and growing rapidly. The first unit was put in service in Brazil a year ago. Today, there are some 11 operational units in service in 8 Countries, on 3 Continents. More are under construction or in advanced planning.

While tailor-made green field FSRU's are on the design boards and under construction, with some almost ready for delivery, notably for Qatar, to date all operating units are converted LNG carriers. They already have the cryogenic LNG tanks in place and their conversion only requires hull modifications to accommodate the addition of on-board loading/unloading and regasification facilities. These ships can be

massive, up to two and a half football fields in length (exceeding by 6 feet the largest US aircraft carrier), and they are technically complex. Ghana does not have the means to manufacture or modify FSRU's. In fact few countries are in a position to build them. To our knowledge, South Korea, Singapore, Japan, possibly the United Arab Emirates (Dubai) and, lately, China are at the moment the only countries that build them.

However, there is room for significant US content, especially in the area of high-tech computer controlled monitoring and operating equipment. That is an area where US technology excels. For example, the US company Emerson Process Management won a $10 million contract from Golar LNG, one of the two FSRU leasing companies currently in existence, in addition to the US-owned Excelerate Energy, LLC, to install Emerson's "PlantWeb Digital Automation Architecture" for basic process control, power management, and safety systems instrumentation on its FSRU, the Golar Freeze, an original LNG carrier built in 1977. The vessel underwent regasification conversion in Singapore in 8 months and is currently going through testing and commissioning for permanent mooring at Dubai.

Mustang Engineering, Inc., an original US company, bought up in 2000 by the Scottish John Wood Group, remains registered in the US with Headquarters in Houston where it has retained all of its design and production facilities and personnel. The company is another well-known LNG automation specialist that has developed predictive intelligence, process control, power management, and safety monitoring and controls for LNG carriers and FSRU's These systems have emerged as a critical success factor for LNG facilities, where they significantly impact the bottom line.

Since the FSRU industry is young and investment and operating costs are still moving downwards on the learning curve, it is difficult to come up with specific cost and US export data to be expected. Also, while technical information on LNG carrier conversions is readily available, financial data are closely guarded for competitive reasons.

Conversion of an LNG Carrier to an FSRU involves essentially two types of work. The first, covers reconfiguring the hull of the vessel and, depending on the vessel's overall tank arrangement, removal of part of the cryogenic storage capacity, one of the tanks for example, to make room for the regasification unit. These costs are location bound at the reconverting shipyard. There are only seven shipyards in the world that work on these giant vessels, none of them in the United States. Hence this part of the conversion offers essentially no potential for US Exports.

The other type of conversion work on the FSRU involves installation of top-side equipment which includes items such as the regasification facility, power generators for internal needs, pumps, motors, heat exchangers, instrumentation and control systems, compressors, and an LNG cryogenic transfer system from the tanks to the regasification plant. Shipbuilders do not make this type of equipment. They look to the international specialty market to furnish it, and that is where there is potential for US exports, such as the $10 million for computer-aided control systems, mentioned above.

The bulk of the US export potential comes from work at the Ghanaian receiving facility, which includes items such as engineering and construction of a mooring system for the FSRU which would take the form of either a jetty or a turret, a side-by-side or over-jetty berthing system for the LNG supply carrier, a natural gas transfer system to the sub-sea pipeline leading to shore, the pipeline itself, as well as metering facilities on shore and connections to the local infrastructure or industrial end-user.

Mr. Graeme McDonald with Golar LNG suggested that the need for US content can be accommodated to some considerable extent, if that is made known in advance, for example if US Ex-Im Bank financing is utilized. He felt that US content in the LNG-carrier-to-FSRU conversion could be expected to run anywhere from $10 and $20 million, not including location-bound stationary facilities in Ghana such as a

mooring system which costs $20-$80 million, depending on the expected harshness of local sea conditions, as well as a sub-sea gas pipeline to shore, meter runs on shore and similar peripheral equipment. These location-bound peripherals could run the US export potential up by another $25-$55 million, for an overall export potential of $35-$75 million.

Potential US export equipment and US content data are listed in Table 3 below. The information in that Table is somewhat tentative, given the newness of the FSRU industry. Not listed in Table 3 are potential job-creating services for the engineering design and project operations and management services that may run as high as $20 million. Since there are only two candidates for the overall project, Golar, which is Swedish-owned, and Excelerate, a US company, one of these two will be in charge of the top-side equipment design, construction and management, for job creation in the US or in Sweden.

Table 3
US Export Potential FSRU Conversion and Installation
Millions of US Dollars

On-Board Conversions	**Component Cost**	**US Export Range**
On-Board Equipment: Includes Regasification Facility, Power Generators For Internal Needs, Cryogenic Pipes, Pumps, Motors, Heat Exchangers, Instrumentation And Control Systems	20-40	10-20
Location-Bound Peripherals in Ghana		
Mooring	20-80	10-40
Sub-Sea Pipeline to Shore, Assumed at 10 km	20	10
Metering Station and Pipelines on Shore, 30 km	10	5
Total	**70-150**	**35-75**

As to US labor, the direct impact of converting the LNG carrier to an FSRU and constructing on-land facilities at the destination point will create one year of work for some 460-1,000 US workers. More importantly, no US jobs will be exported from or eliminated in the US because of the Project.

F. - Foreign Competition and Market Entry Issues.

As to companies that would be converting an LNG carrier to an FSRU for subsequent leasing to an investor, we have found just two that are currently active in that new industry. These two are:

- Excelerate, a US Company headquartered at 1450 Lake Robbins, Suite 200, in Woodlands, TX, Phone 832-813-7100, Web: excelerateenergy.com, Contact Mr. Robert Olsen, Eml: Robert.olsen@exceleratenergy.com, and

- Golar Management LTD, a Norwegian Company headquartered in Oslo, with its principal International and Engineering Offices in London, UK. Golar's London address is: 13th Floor, One America Square, 17 Crosswall, London EC3N 2LB. Contact Mr. Graeme McDonald, Eml.: Graeme.mcdonald@golar.com; Tel: +44 207 063 7017.

There are seven shipyards in the world that currently build LNG's and that have the capacity to convert them into FSRU's. There are no US shipyards in the FSRU conversion business. The 7 active FSRU shipyards and their locations are:

Keppel Shipyard in Singapore,
Daewoo Shipbuilding & Marine Engineering Co, Korea,
Hyundai Heavy Industries, Korea,
Samsung Heavy Industries, Korea,
Kawasaki Heavy Industries, Japan,
Nagasaki Shipyards & Machinery Works, Japan,, or the latest newcomer
Hudong-Zhonghua Shipyard, China

As to shallow-water platforms, jetties, and sub-sea pipelines there is a great deal of expertise in the United States, birthplace of shallow and deep water exploration and production. Five well-known US service/construction/EPC companies active in the field are listed below;

Halliburton 1020 Bellaire Blvd. Houston, TX 77072 Tel: 281-575-3000 www.halliburton.com	Bechtel 50 Beale Street San Francisco, CA 94105 Tel: 415-768-1234 www.bechtel.com	Global Industries, Ltd. 8000 Global Drive Carlyss, LA 70665 Tel: 337-583-5000 www.globalind.com
Superior Energy Services 601 Poydras Street, Suite 24000 New Orleans, LA 70130 Tel: 504-587-7374 www.superiorenergy.com	Hercules Offshore 9 Greenway Plaza, Suite 2200 Houston, TX 77046 Tel; 713-350-5105 www.herculesoffshore.com	

Shipyards compete vigorously for conversion projects. To stay competitive, they in turn procure through open competition those facilities that they do not themselves build. That includes the regasification unit and various other pieces of equipment that has been partially listed above. Hence it makes no difference if the FSRU leasing company is American or Norwegian, international companies of all stripes are bidding to provide for the top-side equipment of FSRU's. The one exception, as mentioned, is the hull reconfiguration and the reduction of storage capacity in case that this is necessary to provide room for the on-board regasification facility.

All in all, the estimated price of acquiring and converting an existing LNG carrier to an FSRU of the 125,000-138,000 cubic meter storage capacity class would be $200 - $250 million, not counting mooring facilities and peripheral equipment at the point of destination.

G. - Developmental Impact.

Infrastructure – Ghana has experienced a period of robust real economic growth over the past decade, at 5.5% per year over the period 2000 – 2009. The growth rate in the power sector, by any reasonable measurement such as the increase in generating capacity, power lines, power delivery and others, has exceeded the country's economic growth rate, which has brought on an infrastructure evolution of unprecedented speed and proportion. The Country is rapidly expanding and modernizing its entire electric sector, including the generation, transmission and distribution of power.

However, continued growth at the current pace cannot be achieved without the development of reliable, affordable, and plentiful fuel supplies. The implementation of the FSRU project will be a major contribution to facilitate the ongoing growth of the country's electric-sector infrastructure, which has been recognized as Ghana's major developmental stimulant. The FSRU Project does not in itself stimulate the development of the Ghanaian infrastructure, it does provide assurance that the pace of development now under way will not be disrupted for lack of fuel.

This Project will guarantee continued growth in the delivery of electric power to many locations that had no access to electricity before, thereby stimulating commercial, industrial and, above all, agricultural development in northern Ghana. The FSRU Project will be a contributing factor to the conversion of subsistence farming to mechanized farming. It will make commercial activities more efficient, and it will spur economic activity in general. By doing this, the project will improve the quality of life in the region.

Human Capacity Building – The implementation of this Project will generate an estimated 200 to 300 full time jobs during construction and some 40 full time jobs to maintain and operate the receiving facilities at the mooring site, the sub-sea pipeline and the on-shore metering and on-shipping facilities. More importantly, by assuring continued growth in power supply generally and by expanding the electric sector in currently power-starved regions of the country, the Project will provide significant employment throughout the country at advanced technical skill levels.

Technology Transfer and Productivity Improvement – Given the commercial and industrial stimulation that the LNG Project facilitates, many of the jobs created through this Project will be technical in nature. This will require training of the work force to raise its skill level, making it more productive and more prosperous in the process. Greater productivity will lead to higher remuneration for the workers directly affected and, through spill-over effects, sometimes referred to as the Keynesian multiplier, to many more workers as well.

Market Oriented Reform –The economic revival of the region through continued growth and expanding access to electric power will alert private-sector investors to new opportunities. Capital will begin to flow to Ghana for major industrial projects, such as a fertilizer plant now under discussion with a major Indian company. Less spectacular but more significant in terms of dispersed regional coverage will be the development of locally-owned small businesses throughout the country, mechanizing what used to be manual work and creating, slowly but surely, an increasing awareness of the possibilities and the use power-aided tools, from drills to computers

Other Developmental Impacts: Government Revenues: Perhaps the most important developmental impact of an invigorated and expanded electric sector and the resulting stimulation of economic activity everywhere will be the expected increase in state and local government revenues. That will stimulate further development of the infrastructure of the region, giving way to better roads, transportation systems, streetlights, and social services.

H. - Impact on the Environment.

There is minimal expected negative impact on the environment from the proposed Project. In fact, the overall environmental impact will be positive as up to 200 MMCF/D of LNG-origin gas will be supplied from the FSRU under normal operations, enough to operate around 700 MW of single cycle power plant capacity, which is more or less the country's current non-hydro capacity. In the event of a total gas supply interruption in the future, with the system kicking into emergency mode, the FSRU should be able to deliver essentially all fuel requirements (400 MMCF/D) for power generation until at least 2015. At some time after 2015, a partial switch to emergency liquid fuels will be inevitable, unless either the WAGP or deliveries from off-shore fields are kept partially running. Using 200 MMCF/D of clean natural gas instead of liquid fuels under normal operations and 400 MMFC/D under emergency operations not only saves substantial sums of money, it also makes a major contribution to the maintenance of a clean environment.

As to the potential impact of the LNG storage and gasification facilities and the transfer of regasified LNG to shore, this is generally regarded as a relatively benign environmental operation. On land, there will be a metering station and a short section of gas pipeline to connect the LNG-origin natural gas to the Ghanaian gas infrastructure. These are facilities that abound throughout the world. According to the Energy Information Administration, there are some 305,000 miles of intrastate and interstate gas transmission line in the United States alone, enough to go around the equator 12 times.

As to off-shore environmental damage, given the 12-meter draft of the loaded vessel which requires a minimum 20-meter water depth, a jetty will be built on pylons or, if a lone standing turret permitting 360-degrees of rotation for the FSRU is used, it, too, will be permanently installed with one giant pylon. Either way, this will require little earth movement during construction and none afterwards. Also, regasified LNG consists almost entirely of methane which is much lighter than air. Escaping LNG gas will quickly be dispersed upwards and will not likely linger long enough to reach the 5% to 15% concentration to reach the explosive danger zone, unlike heavier gases evaporating from crude oil such as the gas from the BP spill that ignited and sank the production platform. Heavier-than-air gases sink to the bottom and, on wind-still days on shore, tend to collect in natural depressions were they can quickly reach the much lower explosion threshold (1% or less, depending on composition). There are, of course no liquids involved capable of doing heavy environmental damage on land or on water.

I. - Impact on US Labor.

Based upon our review, we found that the Project does not provide: (a) any financial incentive to a business enterprise currently located in the United States for the purpose of inducing such an enterprise to relocate outside the United States if such incentive or inducement is likely to reduce the number of employees of such business enterprise in the United States because United States production is being replaced by such enterprise outside the United States; (b) assistance for any project or activity that contributes to the violation of internationally recognized workers rights; or (c) direct assistance for establishing or expanding production of any commodity for export by any country other than the United States, if the commodity is likely to be in surplus on world markets at the time the resulting productive capacity is expected to become operative and if the assistance will cause substantial injury to United States producers of the same, similar, or competing commodity.

As mentioned in the export section of this report, the direct impact of converting an LNG carrier to an FSRU and constructing on-land facilities at the destination point will create one year of employment for some 460-1000 US workers. More importantly, no US jobs will be exported from or eliminated in the US because of the Project.

J. - Justification.

There is probably no greater engine for economic development than ready access to electricity. The Government of Ghana is acutely aware of this and has made significant strides in that direction. Access to electricity extends to approximately 85% of Ghana's urban population, but it remains at a low 23% in rural areas. Providing assured growth in thermal-power fuel supplies through the FSRU Project will warrant continued per-capita growth in power consumption that will increasingly become available to the rural population. The emphasis on economic growth through electric power is re-enforced by the second electric power project of this Definitional Mission that recommends the extension of a high-voltage line in Eastern Ghana deep into the north-eastern rural region.

The LNG Project will also make a contribution to reinforce current stabilization efforts in the Country's electric sector as discussed earlier in this report. The FSRU Proposal is an ideal niche-project for USTDA

to supplement large infusions of electric-sector funding by the World Bank, USAID, the Government of Switzerland, and other aid institutions.

The LNG Storage and Regasification Project will easily meet both of USTDA's acceptance criteria implied in its name: the promotion of trade and, through it, US exports, and the stimulation of economic development in the host country.

K. – Recommendations

The proposed Floating LNG Storage and Regasification Unit meets all of USTDA's funding criteria. It provides an opportunity for US exports of $35-$75 million, a multiple of 50 to 110 times the initial USTDA investment. In addition, the Project provides major developmental opportunities for the entire country by eliminating future fuel supply restraints for the electric sector, thereby assuring continued growth of electric power supply which has been shown to be a dominant stimulant for economic growth in the country. The proposed Project also provides significant fuel cost savings, especially in emergency situations when gas supplies from other sources are reduced or disrupted and exclusive reliance on expensive liquid fuels would be the only alternative in the absence of the LNG option. Finally, having natural gas reliably and significantly anchored in the industrial fuel supply mix reduces or eliminates the use of polluting liquid fuels for main generating stations and diesel-fueled back-up generators in the private sector, and thus makes a measurable contribution to environmental rehabilitation.

The LNG Project has been declared a high-priority by the Grantee and the Bulk Oil Storage and Transportation Company Limited. The FSRU Project has also been endorsed by the Voltage River Authority, Ghana's Government-owned power generation company that is desperate for fuel for its power plants, any fuel, but especially clean-burning and relatively inexpensive fuel such as refined natural gas. The Ministry of Energy, which is the country's lead agency for power has also endorsed the project.

The Project, if implemented, will directly generate full-time employment for some 460-1000 US workers for one year. There will be no loss of US jobs associated with this project.

ANNEX 3

U.S. TRADE AND DEVELOPMENT AGENCY
Arlington, VA 22209-2131

NATIONALITY, SOURCE, AND ORIGIN REQUIREMENTS

The purpose of USTDA's nationality, source, and origin requirements is to assure the maximum practicable participation of American contractors, technology, equipment and materials in the prefeasibility, feasibility, and implementation stages of a project.

USTDA STANDARD RULE (GRANT AGREEMENT STANDARD LANGUAGE):

Except as USTDA may otherwise agree, each of the following provisions shall apply to the delivery of goods and services funded by USTDA under this Grant Agreement: (a) for professional services, the Contractor must be either a U.S. firm or U.S. individual; (b) the Contractor may use U.S. subcontractors without limitation, but the use of subcontractors from host country may not exceed twenty percent (20%) of the USTDA Grant amount and may only be used for specific services from the Terms of Reference identified in the subcontract; (c) employees of U.S. Contractor or U.S. subcontractor firms responsible for professional services shall be U.S. citizens or non-U.S. citizens lawfully admitted for permanent residence in the U.S.; (d) goods purchased for implementation of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and (e) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in host country are not subject to the above restrictions. USTDA will make available further details concerning these standards of eligibility upon request.

NATIONALITY:

1) Rule

Except as USTDA may otherwise agree, the Contractor for USTDA funded activities must be either a U.S. firm or a U.S. individual. Prime contractors may utilize U.S.

subcontractors without limitation, but the use of host country subcontractors is limited to 20% of the USTDA grant amount.

2) Application

Accordingly, only a U.S. firm or U.S. individual may submit proposals on USTDA funded activities. Although those proposals may include subcontracting arrangements with host country firms or individuals for up to 20% of the USTDA grant amount, they may not include subcontracts with third country entities. U.S. firms submitting proposals must ensure that the professional services funded by the USTDA grant, to the extent not subcontracted to host country entities, are supplied by employees of the firm or employees of U.S. subcontractor firms who are U.S. individuals.

Interested U.S. firms and consultants who submit proposals must meet USTDA nationality requirements as of the due date for the submission of proposals and, if selected, must continue to meet such requirements throughout the duration of the USTDA-financed activity. These nationality provisions apply to whatever portion of the Terms of Reference is funded with the USTDA grant.

3) Definitions

A "U.S. individual" is (a) a U.S. citizen, or (b) a non-U.S. citizen lawfully admitted for permanent residence in the U.S. (a green card holder).

A "U.S. firm" is a privately owned firm which is incorporated in the U.S., with its principal place of business in the U.S., and which is either (a) more than 50% owned by U.S. individuals, or (b) has been incorporated in the U.S. for more than three (3) years prior to the issuance date of the request for proposals; has performed similar services in the U.S. for that three (3) year period; employs U.S. citizens in more than half of its permanent full-time positions in the U.S.; and has the existing capability in the U.S. to perform the work in question.

A partnership, organized in the U.S. with its principal place of business in the U.S., may also qualify as a "U.S. firm" as would a joint venture organized or incorporated in the United States consisting entirely of U.S. firms and/or U.S. individuals.

A nonprofit organization, such as an educational institution, foundation, or association may also qualify as a "U.S. firm" if it is incorporated in the United States and managed by a governing body, a majority of whose members are U.S. individuals.

SOURCE AND ORIGIN:

1) Rule

In addition to the nationality requirement stated above, any goods (e.g., equipment and materials) and services related to their shipment (e.g., international transportation and insurance) funded under the USTDA Grant Agreement must have their source and origin in the United States, unless USTDA otherwise agrees. However, necessary purchases of goods and project support services which are unavailable from a U.S. source (e.g., local food, housing and transportation) are eligible without specific USTDA approval.

2) Application

Accordingly, the prime contractor must be able to demonstrate that all goods and services purchased in the host country to carry out the Terms of Reference for a USTDA Grant Agreement that were not of U.S. source and origin were unavailable in the United States.

3) Definitions

"Source" means the country from which shipment is made.

"Origin" means the place of production, through manufacturing, assembly or otherwise.

Questions regarding these nationality, source and origin requirements may be addressed to the USTDA Office of General Counsel.

ANNEX 4

Ghana 2011-11016A

LZ
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PM RY SU
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GRANT AGREEMENT

This Grant Agreement is entered into between the Government of the United States of America, acting through the U.S. Trade and Development Agency ("USTDA") and the Government of the Republic of Ghana, acting through the Ministry of Energy, acting through the Energy Commission ("Grantee"). USTDA agrees to provide the Grantee under the terms of this Agreement US $691,000 ("USTDA Grant") to fund the cost of goods and services required for a feasibility study ("Study") on the proposed Floating LNG Storage and Regasification Unit Project ("Project") in Ghana ("Host Country").

1. USTDA Funding

The funding to be provided under this Grant Agreement shall be used to fund the costs of a contract between the Grantee and the U.S. firm selected by the Grantee ("Contractor") under which the Contractor will perform the Study ("Contract"). Payment to the Contractor will be made directly by USTDA on behalf of the Grantee with the USTDA Grant funds provided under this Grant Agreement.

2. Terms of Reference

The Terms of Reference for the Study ("Terms of Reference") are attached as Annex I and are hereby made a part of this Grant Agreement. The Study will examine the technical, financial, environmental, and other critical aspects of the proposed Project. The Terms of Reference for the Study shall also be included in the Contract.

3. Standards of Conduct

USTDA and the Grantee recognize the existence of standards of conduct for public officials, and commercial entities, in their respective countries. The parties to this Grant Agreement and the Contractor shall observe these standards, which include not accepting payment of money or anything of value, directly or indirectly, from any person for the purpose of illegally or improperly inducing anyone to take any action favorable to any party in connection with the Study.

4. Grantee Responsibilities

The Grantee shall undertake its best efforts to provide reasonable support for the Contractor, such as local transportation, office space, and secretarial support

5. **USTDA as Financier**

(A) USTDA Approval of Competitive Selection Procedures

Selection of the U.S. Contractor shall be carried out by the Grantee according to its established procedures for the competitive selection of contractors with advance notice of the procurement published online through *Federal Business Opportunities (www.fedbizopps.gov)*. Upon request, the Grantee will submit these contracting procedures and related documents to USTDA for information and/or approval.

(B) USTDA Approval of Contractor Selection

The Grantee shall notify USTDA at the address of record set forth in Article 17 below upon selection of the Contractor to perform the Study. Upon approval of this selection by USTDA, the Grantee and the Contractor shall then enter into a contract for performance of the Study. The Grantee shall notify in writing the U.S. firms that submitted unsuccessful proposals to perform the Study that they were not selected.

(C) USTDA Approval of Contract Between Grantee and Contractor

The Grantee and the Contractor shall enter into a contract for performance of the Study. This contract, and any amendments thereto, including assignments and changes in the Terms of Reference, must be approved by USTDA in writing. To expedite this approval, the Grantee (or the Contractor on the Grantee's behalf) shall transmit to USTDA, at the address set forth in Article 17 below, a photocopy of an English language version of the signed contract or a final negotiated draft version of the contract.

(D) USTDA Not a Party to the Contract

It is understood by the parties that USTDA has reserved certain rights such as, but not limited to, the right to approve the terms of the contract and any amendments thereto, including assignments, the selection of all contractors, the Terms of Reference, the Final Report, and any and all documents related to any contract funded under the Grant Agreement. The parties hereto further understand and agree that USTDA, in reserving any or all of the foregoing approval rights, has acted solely as a financing entity to assure the proper use of United States Government funds, and that any decision by USTDA to exercise or refrain from exercising these approval rights shall be made as a financier in the course of funding the Study and shall not be construed as making USTDA a party to the contract. The parties hereto understand and agree that USTDA may, from time to time, exercise the foregoing approval rights, or discuss matters related to these rights and the Project with the parties to the contract or any subcontract, jointly or separately, without thereby incurring any responsibility or liability to such parties. Any approval or failure to approve by USTDA shall not bar the Grantee or USTDA from asserting any right they might have against the

Contractor, or relieve the Contractor of any liability which the Contractor might otherwise have to the Grantee or USTDA.

(E) Grant Agreement Controlling

Regardless of USTDA approval, the rights and obligations of any party to the contract or subcontract thereunder must be consistent with this Grant Agreement. In the event of any inconsistency between the Grant Agreement and any contract or subcontract funded by the Grant Agreement, the Grant Agreement shall be controlling.

6. Disbursement Procedures

(A) USTDA Approval of Contract Required

USTDA will make disbursements of Grant funds directly to the Contractor only after USTDA approves the Grantee's contract with the Contractor.

(B) Contractor Invoice Requirements

The Grantee should request disbursement of funds by USTDA to the Contractor for performance of the Study by submitting invoices in accordance with the procedures set forth in the USTDA Mandatory Clauses in Annex II.

7. Effective Date

The effective date of this Grant Agreement ("Effective Date") shall be the date of signature by both parties or, if the parties sign on different dates, the date of the last signature.

8. Study Schedule

(A) Study Completion Date

The completion date for the Study, which is June 30, 2013, is the date by which the parties estimate that the Study will have been completed.

(B) Time Limitation on Disbursement of USTDA Grant Funds

Except as USTDA may otherwise agree, (a) no USTDA funds may be disbursed under this Grant Agreement for goods and services which are provided prior to the Effective Date of the Grant Agreement; and (b) all funds made available under the Grant Agreement must be disbursed within four (4) years from the Effective Date of the Grant Agreement.

9. USTDA Mandatory Clauses

All contracts funded under this Grant Agreement shall include the USTDA mandatory clauses set forth in Annex II to this Grant Agreement. All subcontracts funded or partially funded with USTDA Grant funds shall include the USTDA mandatory clauses, except for clauses B(1), G, H, I, and J.

10. Use of U.S. Carriers

(A) Air

Transportation by air of persons or property funded under the Grant Agreement shall be on U.S. flag carriers in accordance with the Fly America Act, 49 U.S.C. 40118, to the extent service by such carriers is available, as provided under applicable U.S. Government regulations.

(B) Marine

Transportation by sea of property funded under the Grant Agreement shall be on U.S. carriers in accordance with U.S. cargo preference law.

11. Nationality, Source and Origin

Except as USTDA may otherwise agree, the following provisions shall govern the delivery of goods and services funded by USTDA under the Grant Agreement: (a) for professional services, the Contractor must be either a U.S. firm or U.S. individual; (b) the Contractor may use U.S. subcontractors without limitation, but the use of subcontractors from Host Country may not exceed twenty percent (20%) of the USTDA Grant amount and may only be used for specific services from the Terms of Reference identified in the subcontract; (c) employees of U.S. Contractor or U.S. subcontractor firms responsible for professional services shall be U.S. citizens or non-U.S. citizens lawfully admitted for permanent residence in the U.S.; (d) goods purchased for performance of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and (e) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in Host Country are not subject to the above restrictions. USTDA will make available further details concerning these provisions upon request.

12. Taxes

USTDA funds provided under the Grant Agreement shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in Host Country. Neither the Grantee nor the Contractor will seek reimbursement from USTDA for such taxes, tariffs, duties, fees or other levies.

13. Cooperation Between Parties and Follow-Up

The parties will cooperate to assure that the purposes of the Grant Agreement are accomplished. For five (5) years following receipt by USTDA of the Final Report (as defined in Clause I of Annex II), the Grantee agrees to respond to any reasonable inquiries from USTDA about the status of the Project.

14. Implementation Letters

To assist the Grantee in the implementation of the Study, USTDA may, from time to time, issue implementation letters that will provide additional information about matters covered by the Grant Agreement. The parties may also use jointly agreed upon implementation letters to confirm and record their mutual understanding of matters covered by the Grant Agreement.

15. Recordkeeping and Audit

The Grantee agrees to maintain books, records, and other documents relating to the Study and the Grant Agreement adequate to demonstrate implementation of its responsibilities under the Grant Agreement, including the selection of contractors, receipt and approval of contract deliverables, and approval or disapproval of contractor invoices for payment by USTDA. Such books, records, and other documents shall be separately maintained for three (3) years after the date of the final disbursement by USTDA. The Grantee shall afford USTDA or its authorized representatives the opportunity at reasonable times to review books, records, and other documents relating to the Study and the Grant Agreement.

16. Representation of Parties

For all purposes relevant to the Grant Agreement, the Government of the United States of America will be represented by the U. S. Ambassador to Host Country or USTDA and Grantee will be represented by the Executive Secretary. The parties hereto may, by written notice, designate additional representatives for all purposes under the Grant Agreement.

17. Addresses of Record for Parties

Any notice, request, document, or other communication submitted by either party to the other under the Grant Agreement shall be in writing or through a wire or electronic medium which produces a tangible record of the transmission, such as a telegram, cable or facsimile, and will be deemed duly given or sent when delivered to such party at the following:

To: Mr. Alfred Ahenkorah
Energy Commission
Frema House
Accra, Ghana

Phone: +233 302-813-763
E-mail: ahenkorah@gmail.com

To: U.S. Trade and Development Agency
1000 Wilson Boulevard, Suite 1600
Arlington, Virginia 22209-3901
USA

Phone: (703) 875-4357
Fax: (703) 875-4009

All such communications shall be in English, unless the parties otherwise agree in writing. In addition, the Grantee shall provide the Commercial Section of the U.S. Embassy in Host Country with a copy of each communication sent to USTDA.

Any communication relating to this Grant Agreement shall include the following fiscal data:

Appropriation No.: 11 11/12 1001
Activity No.: 2011-11016A
Reservation No.: 2011197
Grant No.: GH201111197

18. Termination Clause

Either party may terminate the Grant Agreement by giving the other party thirty (30) days advance written notice. The termination of the Grant Agreement will end any obligations of the parties to provide financial or other resources for the Study, except for payments which they are committed to make pursuant to noncancellable commitments entered into with third parties prior to the written notice of termination.

19. Non-waiver of Rights and Remedies

No delay in exercising any right or remedy accruing to either party in connection with the Grant Agreement shall be construed as a waiver of such right or remedy.

20. U.S. Technology and Equipment

By funding this Study, USTDA seeks to promote the project objectives of the Host Country through the use of U.S. technology, goods, and services. In recognition of this purpose, the Grantee agrees that it will allow U.S. suppliers to compete in the procurement of technology, goods and services needed for Project implementation.

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IN WITNESS WHEREOF, the Government of the United States of America and the Government of the Republic of Ghana, each acting through its duly authorized representative, have caused this Agreement to be signed in the English language in their names and delivered as of the day and year written below. In the event that this Grant Agreement is signed in more than one language, the English language version shall govern.

For the Government of the United States of America

By: _____

Date: June 13, 2014

Witnessed:

By: _____

For the Government of the Republic of Ghana

By: _____

Date: 13/06/14

Witnessed:

By: _____

Annex I – Terms of Reference

Annex II – USTDA Mandatory Clauses

Annex I

Terms of Reference

The purpose of this feasibility study is to assist the Grantee in evaluating the technical, economic, environmental, and regulatory aspects of the proposed floating liquefied natural gas storage and regasification unit (FSRU) project on the coast of Ghana. The primary objective of the Study is to provide the Grantee with analyses and recommendations that will support its decision-making with regard to implementation of the Project, and to improve the Grantee's technical and managerial capacity to plan and implement the Project.

Task 1: Document Review and Kickoff Meeting

Sub-Task 1.1: Document Review: The Grantee shall provide the Contractor with all available information and documentation related to the Project including current and projected natural gas demand, including consumption in the electric generation sector and other industrial sectors; current and projected gas reserves in and production from Ghanaian off-shore oil and gas fields; and current and expected gas imports through the West African Gas Pipeline (WAGP). The Contractor shall also review electricity generation, transmission, and distribution projects that are currently operational, under construction, or in an advanced planning stage and expected to become operational within the next fifteen years, and analyze the impact these projects will have on the Project.

Sub-Task 1.2: Kickoff Meeting, Stakeholder Consultations, and Work Plan: The Contractor shall conduct a kickoff meeting with the Grantee at the Grantee's facilities or at another appropriate venue provided by the Grantee. The Grantee shall identify appropriate personnel and other relevant stakeholders to participate in the kickoff meeting, subsequent meetings related to this Project, and in the review of the Contractor's deliverables under these Terms of Reference. At a minimum, this shall include Grantee staff, representatives of the Bulk Oil Storage & Transport Company, Ltd, of Ghana (BOST), the Ministry of Energy, the Volta River Authority, the Ghana Grid Company Limited (GridCo), the Public Utilities Regulatory Commission (PURC), and the Electricity Company of Ghana.

During the kickoff meeting, the Contractor shall introduce the Contractor's study team; review the tasks to be performed under these Terms of Reference; review the Contractor's work plan to perform the tasks under these Terms of Reference; and gather input from the Grantee regarding the Grantee's goals for the FS and any other issues related to the Project. The Contractor shall prepare a meeting agenda, handouts, and presentation materials for all meeting attendees; conduct the meeting and facilitate discussion; draft a summary of the meeting and distribute the meeting summary to meeting attendees and other relevant stakeholders identified by the Grantee. The Contractor shall maintain a list of all meeting participants.

Task 1 Deliverable: The Contractor shall prepare a report of all work performed under Task 1. The Task 1 Deliverable shall be included in the Final Report.

Task 2: Regulatory Review

Sub-Task 2.1: The Contractor shall review existing regulations, laws, and institutions that would impact Project implementation. Throughout the course of the Study, the Contractor shall continue to monitor any changes in regulations, laws, and institutions that would impact Project implementation. The Contractor shall take these regulations, laws, and institutions into account while carrying out Task 3 below.

Sub-Task 2.2: To the extent that there are no regulations in place to govern LNG operations, the Contractor shall develop an outline of rules and regulations based on international best practices which will provide guidance to the Grantee to proceed until such time when a formal regulatory regime is in place.

Task 2 Deliverable: The Contractor shall prepare a report of all work performed under Task 2. The Task 2 Deliverable shall be included in the Final Report.

Task 3: Technical Analysis

Sub-Task 3.1: Technical Assessment. The Contractor shall provide a description of the infrastructure required for the Project including, at least:

- FSRU;
- sub-sea pipeline to transport fuel onshore;
- onshore facilities including metering facilities;
- pipeline connections to power plants;
- pipeline connections to the WAGP; and
- pipeline connections to local natural gas transmission and distribution infrastructure.

Sub-Task 3.2: Load Forecast: The Contractor shall review and analyze recently published natural gas demand and supply data including, at least, the Natural Gas Infrastructure Plan issued by the Energy Commission, and the Tractebel "Transmission Systems Master Plan Study for the Ghana Grid Company". The Grantee shall provide these documents to the Contractor. The Contractor shall develop a fifteen-year forecast of natural gas demand for the Project. The forecast shall include a low, medium, and high scenario for anticipated gas demand. The Contractor's analysis shall consider potential for gas delivery from the West African Gas Pipeline (WAGP) as well as expected gas deliveries from Ghana's off-shore oil and gas fields.

Sub-Task 3.3: Storage Capacity Needs: Based on the Contractor's analysis in Sub-Task 3.2 above, the Contractor shall assess the required LNG storage capacity of the Project. The Contractor shall calculate, for current and projected future gas delivery prices, what

average through-put volume (load factor) of gas will be required to assure the Project's long-term viability.

Sub-Task 3.4: Off-loading Capacity and Onshore Facilities: The Contractor shall determine the required off-loading capacity of the Project, including on-board regasification facilities, to meet emergency demands under reasonably anticipated emergency scenarios such as periods of fuel shortages and fuel supply disruptions from other sources. The Contractor's analysis shall make reference to each of the Project components described in Sub-Task 3.1 above.

Sub-Task 3.5: Vessel Size and Location: Based on the required storage and off-loading capacities determined by the Contractor in Sub-Tasks 3.3 and 3.4 above, the Contractor shall determine the overall required size of the FSRU. In addition, the Contractor shall provide analysis to aid the Grantee in determining the mooring site for the FSRU which is expected to be near Tema or Takoradi. The Contractor shall provide analysis of relevant site selection factors including, at least, ocean floor depths, minimum distances from shore, marine vessel lanes, fishing sites, direction and strengths of ocean currents, wave sizes, prevailing winds, and proximity to potential fuel offtakers. The Contractor's analysis shall not be expected to deliver the level of detail as a full siting study.

Sub-Task 3.6: Alternative LNG Configurations: The Contractor shall estimate capital expenditures and operational expenditures for the Project and compare them with the rough order-of-magnitude capital expenditures and operational expenditures for an onshore LNG import terminal of equivalent capacity. In addition, the Contractor shall compare these estimated costs with the estimated capital expenditures and operational expenditures required for an off-shore system using a barge or barges as LNG storage and regasification vessels versus a converted LNG carrier.

Task 3 Deliverable: The Contractor shall prepare a report of all work performed under Task 3. The Task 3 Deliverable shall be included in the Final Report.

Task 4: Capacity Building Workshops

The Contractor shall conduct a technical training workshop for hands-on operational and regulatory personnel and a managerial training workshop for executive personnel. The workshops shall take place at the Grantee's facilities or at another appropriate venue agreed upon by the Contractor and the Grantee. The workshop venue shall be provided at the Grantee's cost. The Contractor shall coordinate with the Grantee and other Project stakeholders as defined in Task 1 above on appropriate workshop content for both workshops. The Contractor shall provide all workshop participants with an agenda, workbooks, reference materials, and other handouts or presentation materials, as needed; conduct the workshops; and maintain workshop records, including the agenda, workbooks, reference materials, any handouts or presentation materials, a list of all workshop participants, and a summary of the workshops.

Sub-Task 4.1: Technical Training Workshop: The Technical Training Workshop shall focus on operational aspects of the Project including, planning, engineering, construction, operation, and maintenance. The Technical Training Workshop shall be conducted in collaboration with BOST and other relevant Project stakeholders as identified in Task 1 above. The Technical Training Workshop shall be about two days in duration. For planning purposes, the Contractor shall assume that approximately twenty to thirty Grantee and other personnel will participate in the Technical Training Workshop. The Grantee and other participating institutions shall be responsible for identifying the appropriate personnel to participate in the Technical Training Workshop.

Sub-Task 4.2. Managerial Training Workshop: The Managerial Training Workshop shall focus on managerial aspects of LNG storage and regasification, natural gas wholesale markets, sales and off-take agreements and the functioning of LNG spot markets. The Managerial Training Workshop shall include economic and financial planning, subsidy agreements, carried interest provisions as viewed by both the investor and the carried interest holder, business processes, safety and security issues, and leadership development.

The Managerial Training Workshop shall be conducted in collaboration with BOST, PURC, GridCo, VRA, and other relevant Project stakeholders as identified in Task 1 above. The Managerial Training Workshop shall be about two days in duration. For planning purposes, the Contractor shall assume that approximately ten to fifteen Grantee and other personnel will participate. The Grantee and other participating institutions shall be responsible for identifying the appropriate personnel to participate in the Managerial Training Workshop.

Task 4 Deliverable: The Contractor shall prepare a report of all work performed under Task 4. The Task 4 Deliverable shall be included in the Final Report.

Task 5: Economic Analysis

Sub-Task 5.1: Delivered Gas Prices and Internal Rates of Return: The Contractor shall estimate the price of gas at the point of delivery and the Project's internal rates of return ("IRR") using a discounted cash flow method. The Contractor's analysis shall include reference to the low, medium, and high demand scenarios in the load forecast developed by the Contractor in Sub-Task 3.2 above. The Contractor's analysis shall take account of, at least:

- Capital expenditure and operating costs for the FSRU, including delivery costs of LNG delivery to the FSRU;
- Capital expenditure and operating costs of the infrastructure required for gas delivery including construction of the off-shore jetty or receiving station (if not included in the cost of the FSRU lease), sub-sea gas pipeline, metering facilities and related equipment; and
- Applicable depreciation rates.

Sub-Task 5.2: Gas Delivery Pricing: The Contractor shall develop a mechanism to define future gas delivery prices under an appropriate indexing or similar procedure and perform a financial sensitivity analysis for prices of delivered gas.

Sub-Task 5.3: Cost-Benefit Analysis: The Contractor shall estimate the likelihood of WAGP gas becoming available in quantities sufficient to meet Ghana's demand, and the likelihood that such gas will be available at original gas-contract prices. The Contractor shall estimate the likelihood and costs of WAGP gas displacing gas provided by the Project. The Contractor shall assess the likelihood of WAGP failures or contractual delivery ceilings and the costs involved of meeting shortfalls with liquid fuels if insufficient gas is available. The Contractor's analysis shall include the likelihood and quantities of gas expected to be delivered from Ghana's off-shore resources.

Sub-Task 5.4: Power Purchase, Off-Take, and Subsidy Agreements: The Contractor shall provide guidance on the development of long-term LNG purchase agreements, corresponding gas off-take agreements, and government take-or-pay agreements. In addition, the Contractor shall identify and provide guidance on legal and contractual issues in connection with the possibility of injecting gas from the Project into WAGP for delivery to customers with a WAGP connection. The Contractor shall not be expected to participate in contract negotiations on behalf of the Grantee.

Task 5 Deliverable: The Contractor shall prepare a report of all work performed under Task 5. The Task 5 Deliverable shall be included in the Final Report.

Task 6: Financial Analysis

Sub-Task 6.1: Ownership Structure: The Contractor shall make recommendations on the establishment of a special purpose vehicle (SPV) to own and operate the Project. The Contactor's recommendations shall consider various structural configurations for the SPV including the possibility of a carried equity interest for the Grantee or other Project stakeholders, and provisions regarding future asset transfers under a build-own-operate-transfer or similar arrangement.

Sub-Task 6.2: Sources of Financing: The Contractor shall evaluate potential sources of Project financing which may be available to interested investors/lessors including, at least:

- Government of Ghana budgetary resources;
- bilateral lending agencies such as the Export-Import Bank of the United States and the Overseas Private Investment Corporation;
- multilateral lending agencies such as the World Bank and the African Development Bank;
- commercial loans;
- supplier credit; and
- other relevant private sector financial resources.

Sub-Task 6.3: Project Documentation: The Contractor shall recommend a strategy for development of the Project including the solicitation of and negotiation with prospective developers, investors and operators. The Contractor shall develop pro-forma documentation for the proposed Project agreements (e.g. concession agreement, operator license) for the Project. This documentation shall be intended for use as guide by the Grantee in future negotiations with potential investors, developers, and operators. The Contractor shall develop recommendations regarding key terms and conditions to guide the Grantee in negotiations and finalization of Project agreements. The Contractor shall not be expected to participate in contract negotiations on behalf of the Grantee.

Task 6 Deliverable: The Contractor shall prepare a report of all work performed under Task 6. The Task 6 Deliverable shall be included in the Final Report.

Task 7: Comparative Analysis

The Contractor shall survey existing FSRU facilities worldwide and prepare a comparative assessment with the Project based on the issues covered by the Contractor in Tasks 2-6 above. The Contractor's analysis shall give particular emphasis to the costs and gas delivery prices of other FSRU projects compared to the Contractor's analysis in Tasks 5 and 6 above and projected costs and gas delivery prices for the Project.

Task 7 Deliverable: The Contractor shall prepare a report of all work performed under Task 7. The Task 7 Deliverable shall be included in the Final Report.

Task 8: Safety and Security Analysis

The Contractor shall make recommendations on safety and security requirements for the Project. The Contractor's analysis shall include, at least:

- A review of international best practices and safety regulations for the mooring, offloading, and operation of LNG tankers and FSRUs;
- The feasibility of temporarily disconnecting and relocating the FSRU during severe storms or civil disturbances;
- The minimum distance at which the FSRU must remain from the coast of Ghana and possible sources of ignition; and
- The responsibilities of the Project's stakeholders (i.e. owner/operator of the FSRU, the Grantee, BOST, VRA, and others) for providing security for the various Project components (i.e. FSRU, undersea pipeline, onshore facilities, etc.)

Task 8 Deliverable: The Contractor shall prepare a report of all work performed under Task 8. The Task 8 Deliverable shall be included in the Final Report.

Task 9: Preliminary Environmental and Social Impact Assessments

The Contractor shall conduct preliminary environmental and social impact assessments of the Project with reference to local requirements and those of multilateral lending agencies

such as the World Bank. The preliminary environmental and social impact assessments shall, at least:

- identify anticipated environmental and social impacts, both positive and negative, associated with the Project;
- provide recommendations for maximizing positive environmental and social impacts and minimizing negative environmental and social impacts; and
- identify the steps that the Grantee will need to take subsequent to the completion of the FS and prior to the implementation of the Project to comply with local environmental and social requirements and those of multilateral lending agencies such as the World Bank.

Task 9 Deliverable: The Contractor shall prepare a report of all work performed under Task 9. The Task 9 Deliverable shall be included in the Final Report.

Task 10: Development Impact Assessment

The Contractor shall conduct a development impact assessment of the Project. The purpose of the development impact assessment is to provide the Project's decision makers and interested parties with a broader view of the Project's potential effects on Ghana. The development impact assessment shall identify the anticipated impacts of the Project in the following categories:

(1) Infrastructure: The Contractor shall identify the anticipated infrastructure impacts of the Project, giving a brief synopsis and concrete examples of such impacts. Potential infrastructure impacts may include enabling Ghana to build more environmentally clean power plants, and increased access to electricity.

(2) Human Capacity Building: The Contractor shall identify the anticipated number and types of local jobs that will be created as a result of the Project. The Contractor shall also identify the number of local people who would receive training and the types of training programs required for the Project. The Contractor shall not include training performed under these Terms of Reference in the development impact assessment.

(3) Technology Transfer and Productivity Enhancement: The Contractor shall identify the anticipated advance in technologies that would be mobilized through this Project, and especially any technologies which would be new to the Ghanaian market. The Contractor shall also identify anticipated efficiencies that would be gained as a result of the Project.

(4) Market Oriented Reform: The Contractor shall provide a description of any regulations, laws, or institutional changes that are recommended pursuant to these Terms of Reference and the effect they would have if implemented.

(5) Other: The Contractor shall identify any other anticipated development impacts or benefits that would result from the Project such as positive spin-off effects on

unrelated economic sectors, increased good governance and transparency, private sector participation, etc.

Task 10 Deliverable: The Contractor shall prepare a report of all work performed under Task 10. The Task 10 Deliverable shall be included in the Final Report.

Task 11: Identification of U.S. Sources of Supply

The Contractor shall conduct an assessment of available U.S. sources of supply for the Project. U.S. sources of supply shall include U.S. providers of the different categories of goods and services required for Project implementation, especially in the area of FSRU instrumentation and controls. The Contractor shall contact at least twenty-five potential U.S. equipment, technology, and service providers for the Project, including U.S. providers of engineering, construction management, legal, and financial services, and compile a list of those companies that express interest in participating in the Project. For each source identified, the Contractor shall include, at least:

- company name;
- point of contact;
- address;
- telephone;
- e-mail; and
- description of goods and services provided.

Task 11 Deliverable: The Contractor shall prepare a report of all work performed under Task 11. The Task 11 Deliverable shall be included in the Final Report.

Task 12: Assessment of Long-Term Training Requirements

The Contractor shall assess the Grantee's existing capacity in various managerial and technical aspects of running a competitive wholesale gas market. The Contractor's assessment shall give particular emphasis to features which are new to the Ghanaian market such as direct sourcing and delivery of natural gas in a free-access regime, buying in spot markets, etc. Based on this assessment, the Contractor shall provide the Grantee with recommendations for long-term training programs that will strengthen the Grantee's capacity in this field. The Contractor shall estimate the costs of the recommended long-term training programs and provide the Grantee with recommendations for financing them. The Contractor shall provide the Grantee with detailed Terms of Reference for two training programs that would directly support the implementation of the Project.

Task 12 Deliverable: The Contractor shall prepare a report of all work performed under Task 12. The Task 12 Deliverable shall be included in the Final Report.

Task 13: Implementation Plan

The Contractor shall develop an implementation plan that identifies all the steps the Grantee will need to take subsequent to the completion of the FS and prior to Project implementation. The Contractor's recommendations shall include a suggested timeline and shall consider, at least:

- Environmental and social impact assessments which comply with local environmental and social requirements and those of multilateral lending agencies such as the World Bank;
- A full, in-depth siting study for the selected Project site;
- Regulatory, legal, and institutional requirements;
- Power purchase, off-take, and subsidy agreements;
- Financial arrangements;
- Procurement of goods and services; and
- Long-term training requirements.

Task 13 Deliverable: The Contractor shall prepare a report of all work performed under Task 13. The Task 13 Deliverable shall be included in the Final Report.

Task 14: Final Report

The Contractor shall prepare and deliver to the Grantee and USTDA a substantive and comprehensive final report of all work performed under these Terms of Reference ("Final Report"). The Final Report shall be organized according to the above tasks, and shall include all deliverables and documents that have been provided to the Grantee. The Final Report shall be prepared in accordance with Clause I of Annex II of the Grant Agreement.

Notes:

(1) The Contractor is responsible for compliance with U.S. export licensing requirements, if applicable, in the performance of the Terms of Reference.

(2) The Contractor and the Grantee shall be careful to ensure that the public version of the Final Report contains no security or confidential information.

(3) The Grantee and USTDA shall have an irrevocable, worldwide, royalty-free, non-exclusive right to use and distribute the Final Report and all work product that is developed under these Terms of Reference.

Annex II

USTDA Mandatory Contract Clauses

A. USTDA Mandatory Clauses Controlling

The parties to this contract acknowledge that this contract is funded in whole or in part by the U.S. Trade and Development Agency ("USTDA") under the Grant Agreement between the Government of the United States of America acting through USTDA and Government of the Republic of Ghana, acting through the Ministry of Energy, acting through the Energy Commission ("Client"), dated _____ ("Grant Agreement"). The Client has selected _____ ("Contractor") to perform the feasibility study ("Study") for the Floating LNG Storage and Regasification Unit Project ("Project") in Ghana ("Host Country"). Notwithstanding any other provisions of this contract, the following USTDA mandatory contract clauses shall govern. All subcontracts entered into by Contractor funded or partially funded with USTDA Grant funds shall include these USTDA mandatory contract clauses, except for clauses B(1), G, H, I, and J. In addition, in the event of any inconsistency between the Grant Agreement and any contract or subcontract thereunder, the Grant Agreement shall be controlling.

B. USTDA as Financier

(1) USTDA Approval of Contract

All contracts funded under the Grant Agreement, and any amendments thereto, including assignments and changes in the Terms of Reference, must be approved by USTDA in writing in order to be effective with respect to the expenditure of USTDA Grant funds. USTDA will not authorize the disbursement of USTDA Grant funds until the contract has been formally approved by USTDA or until the contract conforms to modifications required by USTDA during the contract review process.

(2) USTDA Not a Party to the Contract

It is understood by the parties that USTDA has reserved certain rights such as, but not limited to, the right to approve the terms of this contract and amendments thereto, including assignments, the selection of all contractors, the Terms of Reference, the Final Report, and any and all documents related to any contract funded under the Grant Agreement. The parties hereto further understand and agree that USTDA, in reserving any or all of the foregoing approval rights, has acted solely as a financing entity to assure the proper use of United States Government funds, and that any decision by USTDA to exercise or refrain from exercising these approval rights shall be made as a financier in the course of financing the Study and shall not be construed as making USTDA a party to the contract. The parties hereto understand and agree that USTDA may, from time to time, exercise the foregoing approval rights, or discuss matters related to these rights and the Project with the parties to the contract or any subcontract, jointly or separately, without thereby incurring any responsibility

or liability to such parties. Any approval or failure to approve by USTDA shall not bar the Client or USTDA from asserting any right they might have against the Contractor, or relieve the Contractor of any liability which the Contractor might otherwise have to the Client or USTDA.

C. Nationality, Source and Origin

Except as USTDA may otherwise agree, the following provisions shall govern the delivery of goods and services funded by USTDA under the Grant Agreement: (a) for professional services, the Contractor must be either a U.S. firm or U.S. individual; (b) the Contractor may use U.S. subcontractors without limitation, but the use of subcontractors from Host Country may not exceed twenty percent (20%) of the USTDA Grant amount and may only be used for specific services from the Terms of Reference identified in the subcontract; (c) employees of U.S. Contractor or U.S. subcontractor firms responsible for professional services shall be U.S. citizens or non-U.S. citizens lawfully admitted for permanent residence in the U.S.; (d) goods purchased for performance of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and (e) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in Host Country are not subject to the above restrictions. USTDA will make available further details concerning these provisions upon request.

D. Recordkeeping and Audit

The Contractor and subcontractors funded under the Grant Agreement shall maintain, in accordance with generally accepted accounting procedures, books, records, and other documents, sufficient to reflect properly all transactions under or in connection with the contract. These books, records, and other documents shall clearly identify and track the use and expenditure of USTDA funds, separately from other funding sources. Such books, records, and documents shall be maintained during the contract term and for a period of three (3) years after final disbursement by USTDA. The Contractor and subcontractors shall afford USTDA, or its authorized representatives, the opportunity at reasonable times for inspection and audit of such books, records, and other documentation.

E. U.S. Carriers

(1) Air

Transportation by air of persons or property funded under the Grant Agreement shall be on U.S. flag carriers in accordance with the Fly America Act, 49 U.S.C. 40118, to the extent service by such carriers is available, as provided under applicable U.S. Government regulations.

(2) Marine

Transportation by sea of property funded under the Grant Agreement shall be on U.S. carriers in accordance with U.S. cargo preference law.

F. Workman's Compensation Insurance

The Contractor shall provide adequate Workman's Compensation Insurance coverage for work performed under this Contract.

G. Reporting Requirements

The Contractor shall advise USTDA by letter as to the status of the Project on March 1st annually for a period of two (2) years after completion of the Study. In addition, if at any time the Contractor receives follow-on work from the Client, the Contractor shall so notify USTDA and designate the Contractor's contact point including name, telephone, and fax number. Since this information may be made publicly available by USTDA, any information which is confidential shall be designated as such by the Contractor and provided separately to USTDA. USTDA will maintain the confidentiality of such information in accordance with applicable law.

H. Disbursement Procedures

(1) USTDA Approval of Contract

Disbursement of Grant funds will be made only after USTDA approval of this contract. To make this review in a timely fashion, USTDA must receive from either the Client or the Contractor a photocopy of an English language version of a signed contract or a final negotiated draft version to the attention of the General Counsel's office at USTDA's address listed in Clause M below.

(2) Payment Schedule Requirements

A payment schedule for disbursement of Grant funds to the Contractor shall be included in this Contract. Such payment schedule must conform to the following USTDA requirements: (1) up to twenty percent (20%) of the total USTDA Grant amount may be used as a mobilization payment; (2) all other payments, with the exception of the final payment, shall be based upon contract performance milestones; and (3) the final payment may be no less than fifteen percent (15%) of the total USTDA Grant amount, payable upon receipt by USTDA of an approved Final Report in accordance with the specifications and quantities set forth in Clause I below. Invoicing procedures for all payments are described below.

(3) Contractor Invoice Requirements

USTDA will make all disbursements of USTDA Grant funds directly to the Contractor. The Contractor must provide USTDA with an ACH Vendor Enrollment Form (available from USTDA) with the first invoice. The Client shall request disbursement of funds by USTDA to the Contractor for performance of the contract by submitting the following to USTDA:

(a) Contractor's Invoice

The Contractor's invoice shall include reference to an item listed in the Contract payment schedule, the requested payment amount, and an appropriate certification by the Contractor, as follows:

(i) For a mobilization payment (if any):

"As a condition for this mobilization payment, the Contractor certifies that it will perform all work in accordance with the terms of its Contract with the Client. To the extent that the Contractor does not comply with the terms and conditions of the Contract, including the USTDA mandatory provisions contained therein, it will, upon USTDA's request, make an appropriate refund to USTDA. "

(ii) For contract performance milestone payments:

"The Contractor has performed the work described in this invoice in accordance with the terms of its contract with the Client and is entitled to payment thereunder. To the extent the Contractor has not complied with the terms and conditions of the Contract, including the USTDA mandatory provisions contained therein, it will, upon USTDA's request, make an appropriate refund to USTDA."

(iii) For final payment:

"The Contractor has performed the work described in this invoice in accordance with the terms of its contract with the Client and is entitled to payment thereunder. Specifically, the Contractor has submitted the Final Report to the Client, as required by the Contract, and received the Client's approval of the Final Report. To the extent the Contractor has not complied with the terms and conditions of the Contract, including the USTDA mandatory provisions contained therein, it will, upon USTDA's request, make an appropriate refund to USTDA."

(b) Client's Approval of the Contractor's Invoice

(i) The invoice for a mobilization payment must be approved in writing by the Client.

(ii) For contract performance milestone payments, the following certification by the Client must be provided on the invoice or separately:

"The services for which disbursement is requested by the Contractor have been performed satisfactorily, in accordance with applicable Contract provisions and the terms and conditions of the USTDA Grant Agreement."

(iii) For final payment, the following certification by the Client must be provided on the invoice or separately:

"The services for which disbursement is requested by the Contractor have been performed satisfactorily, in accordance with applicable Contract provisions and terms and conditions of the USTDA Grant Agreement. The Final Report submitted by the Contractor has been reviewed and approved by the Client. "

(c) USTDA Address for Disbursement Requests

Requests for disbursement shall be submitted by courier or mail to the attention of the Finance Department at USTDA's address listed in Clause M below.

(4) Termination

In the event that the Contract is terminated prior to completion, the Contractor will be eligible, subject to USTDA approval, for reasonable and documented costs which have been incurred in performing the Terms of Reference prior to termination, as well as reasonable wind down expenses. Reimbursement for such costs shall not exceed the total amount of undisbursed Grant funds. Likewise, in the event of such termination, USTDA is entitled to receive from the Contractor all USTDA Grant funds previously disbursed to the Contractor (including but not limited to mobilization payments) which exceed the reasonable and documented costs incurred in performing the Terms of Reference prior to termination.

I. USTDA Final Report

(1) Definition

"Final Report" shall mean the Final Report described in the attached Annex I Terms of Reference or, if no such "Final Report" is described therein, "Final Report" shall mean a substantive and comprehensive report of work performed in accordance with the attached Annex I Terms of Reference, including any documents delivered to the Client.

(2) Final Report Submission Requirements

The Contractor shall provide the following to USTDA:

(a) One (1) complete version of the Final Report for USTDA's records. This version shall have been approved by the Client in writing and must be in the English language. It is the responsibility of the Contractor to ensure that confidential information, if any, contained in this version be clearly marked. USTDA will maintain the confidentiality of such information in accordance with applicable law.

and

(b) One (1) copy of the Final Report suitable for public distribution ("Public Version"). The Public Version shall have been approved by the Client in writing and must be in the English language. As this version will be available for public distribution, it must not contain any confidential information. If the report in (a) above contains no confidential information, it may be used as the Public Version. In any event, the Public Version must be informative and contain sufficient Project detail to be useful to prospective equipment and service providers.

and

(c) Two (2) CD-ROMs, each containing a complete copy of the Public Version of the Final Report. The electronic files on the CD-ROMs shall be submitted in a commonly accessible read-only format. As these CD-ROMs will be available for public distribution, they must not contain any confidential information. It is the responsibility of the Contractor to ensure that no confidential information is contained on the CD-ROMs.

The Contractor shall also provide one (1) copy of the Public Version of the Final Report to the Foreign Commercial Service Officer or the Economic Section of the U.S. Embassy in Host Country for informational purposes.

(3) Final Report Presentation

All Final Reports submitted to USTDA must be paginated and include the following:

(a) The front cover of every Final Report shall contain the name of the Client, the name of the Contractor who prepared the report, a report title, USTDA's logo, USTDA's mailing and delivery addresses. If the complete version of the Final Report contains confidential information, the Contractor shall be responsible for labeling the front cover of that version of the Final Report with the term "Confidential Version." The Contractor shall be responsible for labeling the front cover of the Public Version of the Final Report with the term "Public Version." The front cover of every Final Report shall also contain the following disclaimer:

"This report was funded by the U.S. Trade and Development Agency (USTDA), an agency of the U. S. Government. The opinions, findings, conclusions or recommendations expressed in this document are those of the author(s) and do not necessarily represent the official position or policies of

USTDA. USTDA makes no representation about, nor does it accept responsibility for, the accuracy or completeness of the information contained in this report."

(b) The inside front cover of every Final Report shall contain USTDA's logo, USTDA's mailing and delivery addresses, and USTDA's mission statement. Camera-ready copy of USTDA Final Report specifications will be available from USTDA upon request.

(c) The Contractor shall affix to the front of the CD-ROM a label identifying the Host Country, USTDA Activity Number, the name of the Client, the name of the Contractor who prepared the report, a report title, and the following language:

"The Contractor certifies that this CD-ROM contains the Public Version of the Final Report and that all contents are suitable for public distribution."

(d) The Contractor and any subcontractors that perform work pursuant to the Grant Agreement must be clearly identified in the Final Report. Business name, point of contact, address, telephone and fax numbers shall be included for Contractor and each subcontractor.

(e) The Final Report, while aiming at optimum specifications and characteristics for the Project, shall identify the availability of prospective U.S. sources of supply. Business name, point of contact, address, telephone and fax numbers shall be included for each commercial source.

(f) The Final Report shall be accompanied by a letter or other notation by the Client which states that the Client approves the Final Report. A certification by the Client to this effect provided on or with the invoice for final payment will meet this requirement.

J. Modifications

All changes, modifications, assignments or amendments to this contract, including the appendices, shall be made only by written agreement by the parties hereto, subject to written USTDA approval.

K. Study Schedule

(1) Study Completion Date

The completion date for the Study, which is June 30, 2013, is the date by which the parties estimate that the Study will have been completed.

(2) Time Limitation on Disbursement of USTDA Grant Funds

Except as USTDA may otherwise agree, (a) no USTDA funds may be disbursed under this contract for goods and services which are provided prior to the Effective Date of the Grant Agreement; and (b) all funds made available under the Grant Agreement must be disbursed within four (4) years from the Effective Date of the Grant Agreement.

L. Business Practices

The Contractor agrees not to pay, promise to pay, or authorize the payment of any money or anything of value, directly or indirectly, to any person (whether a governmental official or private individual) for the purpose of illegally or improperly inducing anyone to take any action favorable to any party in connection with the Study. The Client agrees not to receive any such payment. The Contractor and the Client agree that each will require that any agent or representative hired to represent them in connection with the Study will comply with this paragraph and all laws which apply to activities and obligations of each party under this Contract, including but not limited to those laws and obligations dealing with improper payments as described above.

M. USTDA Address and Fiscal Data

Any communication with USTDA regarding this Contract shall be sent to the following address and include the fiscal data listed below:

U.S. Trade and Development Agency
1000 Wilson Boulevard, Suite 1600
Arlington, Virginia 22209-3901
USA

Phone: (703) 875-4357
Fax: (703) 875-4009

Fiscal Data:
Appropriation No.: 11 11/12 1001
Activity No.: 2011-11016A
Reservation No.: 2011197
Grant No.: GH201111197

N. Definitions

All capitalized terms not otherwise defined herein shall have the meaning set forth in the Grant Agreement.

O. Taxes

USTDA funds provided under the Grant Agreement shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in Host Country. Neither the Client nor the Contractor will seek reimbursement from USTDA for such taxes, tariffs, duties, fees or other levies.

ANNEX 5

Terms of Reference

The purpose of this feasibility study is to assist the Grantee in evaluating the technical, economic, environmental, and regulatory aspects of the proposed floating liquefied natural gas storage and regasification unit (FSRU) project on the coast of Ghana. The primary objective of the Study is to provide the Grantee with analyses and recommendations that will support its decision-making with regard to implementation of the Project, and to improve the Grantee's technical and managerial capacity to plan and implement the Project.

Task 1: Document Review and Kickoff Meeting

Sub-Task 1.1: Document Review: The Grantee shall provide the Contractor with all available information and documentation related to the Project including current and projected natural gas demand, including consumption in the electric generation sector and other industrial sectors; current and projected gas reserves in and production from Ghanaian off-shore oil and gas fields; and current and expected gas imports through the West African Gas Pipeline (WAGP). The Contractor shall also review electricity generation, transmission, and distribution projects that are currently operational, under construction, or in an advanced planning stage and expected to become operational within the next fifteen years, and analyze the impact these projects will have on the Project.

Sub-Task 1.2: Kickoff Meeting, Stakeholder Consultations, and Work Plan: The Contractor shall conduct a kickoff meeting with the Grantee at the Grantee's facilities or at another appropriate venue provided by the Grantee. The Grantee shall identify appropriate personnel and other relevant stakeholders to participate in the kickoff meeting, subsequent meetings related to this Project, and in the review of the Contractor's deliverables under these Terms of Reference. At a minimum, this shall include Grantee staff, representatives of the Bulk Oil Storage & Transport Company, Ltd, of Ghana (BOST), the Ministry of Energy, the Volta River Authority, the Ghana Grid Company Limited (GridCo), the Public Utilities Regulatory Commission (PURC), and the Electricity Company of Ghana.

During the kickoff meeting, the Contractor shall introduce the Contractor's study team; review the tasks to be performed under these Terms of Reference; review the Contractor's work plan to perform the tasks under these Terms of Reference; and gather input from the Grantee regarding the Grantee's goals for the FS and any other issues related to the Project. The Contractor shall prepare a meeting agenda, handouts, and presentation materials for all meeting attendees; conduct the meeting and facilitate discussion; draft a summary of the meeting and distribute the meeting summary to meeting attendees and other relevant stakeholders identified by the Grantee. The Contractor shall maintain a list of all meeting participants.

Task 1 Deliverable: The Contractor shall prepare a report of all work performed under Task 1. The Task 1 Deliverable shall be included in the Final Report.

Task 2: Regulatory Review

Sub-Task 2.1: The Contractor shall review existing regulations, laws, and institutions that would impact Project implementation. Throughout the course of the Study, the Contractor shall continue to monitor any changes in regulations, laws, and institutions that would impact Project implementation. The Contractor shall take these regulations, laws, and institutions into account while carrying out Task 3 below.

Sub-Task 2.2: To the extent that there are no regulations in place to govern LNG operations, the Contractor shall develop an outline of rules and regulations based on international best practices which will provide guidance to the Grantee to proceed until such time when a formal regulatory regime is in place.

Task 2 Deliverable: The Contractor shall prepare a report of all work performed under Task 2. The Task 2 Deliverable shall be included in the Final Report.

Task 3: Technical Analysis

Sub-Task 3.1: Technical Assessment: The Contractor shall provide a description of the infrastructure required for the Project including, at least:

- FSRU;
- sub-sea pipeline to transport fuel onshore;
- onshore facilities including metering facilities;
- pipeline connections to power plants;
- pipeline connections to the WAGP; and
- pipeline connections to local natural gas transmission and distribution infrastructure.

Sub-Task 3.2: Load Forecast: The Contractor shall review and analyze recently published natural gas demand and supply data including, at least, the Natural Gas Infrastructure Plan issued by the Energy Commission, and the Tractebel "Transmission Systems Master Plan Study for the Ghana Grid Company". The Grantee shall provide these documents to the Contractor. The Contractor shall develop a fifteen-year forecast of natural gas demand for the Project. The forecast shall include a low, medium, and high scenario for anticipated gas demand. The Contractor's analysis shall consider potential for gas delivery from the West African Gas Pipeline (WAGP) as well as expected gas deliveries from Ghana's off-shore oil and gas fields.

Sub-Task 3.3: Storage Capacity Needs: Based on the Contractor's analysis in Sub-Task 3.2 above, the Contractor shall assess the required LNG storage capacity of the Project. The Contractor shall calculate, for current and projected future gas delivery prices, what average through-put volume (load factor) of gas will be required to assure the Project's long-term viability.

Sub-Task 3.4: Off-loading Capacity and Onshore Facilities: The Contractor shall determine the required off-loading capacity of the Project, including on-board regasification facilities, to meet emergency demands under reasonably anticipated emergency scenarios such as periods of fuel

shortages and fuel supply disruptions from other sources. The Contractor's analysis shall make reference to each of the Project components described in Sub-Task 3.1 above.

Sub-Task 3.5: Vessel Size and Location: Based on the required storage and off-loading capacities determined by the Contractor in Sub-Tasks 3.3 and 3.4 above, the Contractor shall determine the overall required size of the FSRU. In addition, the Contractor shall provide analysis to aid the Grantee in determining the mooring site for the FSRU which is expected to be near Tema or Takoradi. The Contractor shall provide analysis of relevant site selection factors including, at least, ocean floor depths, minimum distances from shore, marine vessel lanes, fishing sites, direction and strengths of ocean currents, wave sizes, prevailing winds, and proximity to potential fuel offtakers. The Contractor's analysis shall not be expected to deliver the level of detail as a full siting study.

Sub-Task 3.6: Alternative LNG Configurations: The Contractor shall estimate capital expenditures and operational expenditures for the Project and compare them with the rough order-of-magnitude capital expenditures and operational expenditures for an onshore LNG import terminal of equivalent capacity. In addition, the Contractor shall compare these estimated costs with the estimated capital expenditures and operational expenditures required for an off-shore system using a barge or barges as LNG storage and regasification vessels versus a converted LNG carrier.

Task 3 Deliverable: The Contractor shall prepare a report of all work performed under Task 3. The Task 3 Deliverable shall be included in the Final Report.

Task 4: Capacity Building Workshops

The Contractor shall conduct a technical training workshop for hands-on operational and regulatory personnel and a managerial training workshop for executive personnel. The workshops shall take place at the Grantee's facilities or at another appropriate venue agreed upon by the Contractor and the Grantee. The workshop venue shall be provided at the Grantee's cost. The Contractor shall coordinate with the Grantee and other Project stakeholders as defined in Task 1 above on appropriate workshop content for both workshops. The Contractor shall provide all workshop participants with an agenda, workbooks, reference materials, and other handouts or presentation materials, as needed; conduct the workshops; and maintain workshop records, including the agenda, workbooks, reference materials, any handouts or presentation materials, a list of all workshop participants, and a summary of the workshops.

Sub-Task 4.1: Technical Training Workshop: The Technical Training Workshop shall focus on operational aspects of the Project including, planning, engineering, construction, operation, and maintenance. The Technical Training Workshop shall be conducted in collaboration with BOST and other relevant Project stakeholders as identified in Task 1 above. The Technical Training Workshop shall be about two days in duration. For planning purposes, the Contractor shall assume that approximately twenty to thirty Grantee and other personnel will participate in the Technical Training Workshop. The Grantee and other participating institutions shall be responsible for identifying the appropriate personnel to participate in the Technical Training Workshop.

Sub-Task 4.2: Managerial Training Workshop: The Managerial Training Workshop shall focus on managerial aspects of LNG storage and regasification, natural gas wholesale markets, sales and off-take agreements and the functioning of LNG spot markets. The Managerial Training Workshop shall include economic and financial planning, subsidy agreements, carried interest provisions as viewed by both the investor and the carried interest holder, business processes, safety and security issues, and leadership development.

The Managerial Training Workshop shall be conducted in collaboration with BOST, PURC, GridCo, VRA, and other relevant Project stakeholders as identified in Task 1 above. The Managerial Training Workshop shall be about two days in duration. For planning purposes, the Contractor shall assume that approximately ten to fifteen Grantee and other personnel will participate. The Grantee and other participating institutions shall be responsible for identifying the appropriate personnel to participate in the Managerial Training Workshop.

Task 4 Deliverable: The Contractor shall prepare a report of all work performed under Task 4. The Task 4 Deliverable shall be included in the Final Report.

Task 5: Economic Analysis

Sub-Task 5.1: Delivered Gas Prices and Internal Rates of Return: The Contractor shall estimate the price of gas at the point of delivery and the Project's internal rates of return ("IRR") using a discounted cash flow method. The Contractor's analysis shall include reference to the low, medium, and high demand scenarios in the load forecast developed by the Contractor in Sub-Task 3.2 above. The Contractor's analysis shall take account of, at least:

- Capital expenditure and operating costs for the FSRU, including delivery costs of LNG delivery to the FSRU;
- Capital expenditure and operating costs of the infrastructure required for gas delivery including construction of the off-shore jetty or receiving station (if not included in the cost of the FSRU lease), sub-sea gas pipeline, metering facilities and related equipment; and
- Applicable depreciation rates.

Sub-Task 5.2: Gas Delivery Pricing: The Contractor shall develop a mechanism to define future gas delivery prices under an appropriate indexing or similar procedure and perform a financial sensitivity analysis for prices of delivered gas.

Sub-Task 5.3: Cost-Benefit Analysis: The Contractor shall estimate the likelihood of WAGP gas becoming available in quantities sufficient to meet Ghana's demand, and the likelihood that such gas will be available at original gas-contract prices. The Contractor shall estimate the likelihood and costs of WAGP gas displacing gas provided by the Project. The Contractor shall assess the likelihood of WAGP failures or contractual delivery ceilings and the costs involved of meeting shortfalls with liquid fuels if insufficient gas is available. The Contractor's analysis shall include the likelihood and quantities of gas expected to be delivered from Ghana's off-shore resources.

Sub-Task 5.4: Power Purchase, Off-Take, and Subsidy Agreements: The Contractor shall provide guidance on the development of long-term LNG purchase agreements, corresponding gas off-take agreements, and government take-or-pay agreements. In addition, the Contractor shall identify and provide guidance on legal and contractual issues in connection with the possibility of injecting gas from the Project into WAGP for delivery to customers with a WAGP connection. The Contractor shall not be expected to participate in contract negotiations on behalf of the Grantee.

Task 5 Deliverable: The Contractor shall prepare a report of all work performed under Task 5. The Task 5 Deliverable shall be included in the Final Report.

Task 6: Financial Analysis

Sub-Task 6.1: Ownership Structure: The Contractor shall make recommendations on the establishment of a special purpose vehicle (SPV) to own and operate the Project. The Contactor's recommendations shall consider various structural configurations for the SPV including the possibility of a carried equity interest for the Grantee or other Project stakeholders, and provisions regarding future asset transfers under a build-own-operate-transfer or similar arrangement.

Sub-Task 6.2: Sources of Financing: The Contractor shall evaluate potential sources of Project financing which may be available to interested investors/lessors including, at least:

- Government of Ghana budgetary resources;
- bilateral lending agencies such as the Export-Import Bank of the United States and the Overseas Private Investment Corporation;
- multilateral lending agencies such as the World Bank and the African Development Bank;
- commercial loans;
- supplier credit; and
- other relevant private sector financial resources.

Sub-Task 6.3: Project Documentation: The Contractor shall recommend a strategy for development of the Project including the solicitation of and negotiation with prospective developers, investors and operators. The Contractor shall develop pro-forma documentation for the proposed Project agreements (e.g. concession agreement, operator license) for the Project. This documentation shall be intended for use as guide by the Grantee in future negotiations with potential investors, developers, and operators. The Contractor shall develop recommendations regarding key terms and conditions to guide the Grantee in negotiations and finalization of Project agreements. The Contractor shall not be expected to participate in contract negotiations on behalf of the Grantee.

Task 6 Deliverable: The Contractor shall prepare a report of all work performed under Task 6. The Task 6 Deliverable shall be included in the Final Report.

Task 7: Comparative Analysis

The Contractor shall survey existing FSRU facilities worldwide and prepare a comparative assessment with the Project based on the issues covered by the Contractor in Tasks 2-6 above. The Contractor's analysis shall give particular emphasis to the costs and gas delivery prices of other FSRU projects compared to the Contractor's analysis in Tasks 5 and 6 above and projected costs and gas delivery prices for the Project.

Task 7 Deliverable: The Contractor shall prepare a report of all work performed under Task 7. The Task 7 Deliverable shall be included in the Final Report.

Task 8: Safety and Security Analysis

The Contractor shall make recommendations on safety and security requirements for the Project. The Contractor's analysis shall include, at least:

- A review of international best practices and safety regulations for the mooring, offloading, and operation of LNG tankers and FSRUs;
- The feasibility of temporarily disconnecting and relocating the FSRU during severe storms or civil disturbances;
- The minimum distance at which the FSRU must remain from the coast of Ghana and possible sources of ignition; and
- The responsibilities of the Project's stakeholders (i.e. owner/operator of the FSRU, the Grantee, BOST, VRA, and others) for providing security for the various Project components (i.e. FSRU, undersea pipeline, onshore facilities, etc.)

Task 8 Deliverable: The Contractor shall prepare a report of all work performed under Task 8. The Task 8 Deliverable shall be included in the Final Report.

Task 9: Preliminary Environmental and Social Impact Assessments

The Contractor shall conduct preliminary environmental and social impact assessments of the Project with reference to local requirements and those of multilateral lending agencies such as the World Bank. The preliminary environmental and social impact assessments shall, at least:

- identify anticipated environmental and social impacts, both positive and negative, associated with the Project;
- provide recommendations for maximizing positive environmental and social impacts and minimizing negative environmental and social impacts; and
- identify the steps that the Grantee will need to take subsequent to the completion of the FS and prior to the implementation of the Project to comply with local environmental and social requirements and those of multilateral lending agencies such as the World Bank.

Task 9 Deliverable: The Contractor shall prepare a report of all work performed under Task 9. The Task 9 Deliverable shall be included in the Final Report.

Task 10: Development Impact Assessment

The Contractor shall conduct a development impact assessment of the Project. The purpose of the development impact assessment is to provide the Project's decision makers and interested parties with a broader view of the Project's potential effects on Ghana. The development impact assessment shall identify the anticipated impacts of the Project in the following categories:

(1) Infrastructure: The Contractor shall identify the anticipated infrastructure impacts of the Project, giving a brief synopsis and concrete examples of such impacts. Potential infrastructure impacts may include enabling Ghana to build more environmentally clean power plants, and increased access to electricity.

(2) Human Capacity Building: The Contractor shall identify the anticipated number and types of local jobs that will be created as a result of the Project. The Contractor shall also identify the number of local people who would receive training and the types of training programs required for the Project. The Contractor shall not include training performed under these Terms of Reference in the development impact assessment.

(3) Technology Transfer and Productivity Enhancement: The Contractor shall identify the anticipated advance in technologies that would be mobilized through this Project, and especially any technologies which would be new to the Ghanaian market. The Contractor shall also identify anticipated efficiencies that would be gained as a result of the Project.

(4) Market Oriented Reform: The Contractor shall provide a description of any regulations, laws, or institutional changes that are recommended pursuant to these Terms of Reference and the effect they would have if implemented.

(5) Other: The Contractor shall identify any other anticipated development impacts or benefits that would result from the Project such as positive spin-off effects on unrelated economic sectors, increased good governance and transparency, private sector participation, etc.

Task 10 Deliverable: The Contractor shall prepare a report of all work performed under Task 10. The Task 10 Deliverable shall be included in the Final Report.

Task 11: Identification of U.S. Sources of Supply

The Contractor shall conduct an assessment of available U.S. sources of supply for the Project. U.S. sources of supply shall include U.S. providers of the different categories of goods and services required for Project implementation, especially in the area of FSRU instrumentation and controls. The Contractor shall contact at least twenty-five potential U.S. equipment, technology, and service providers for the Project, including U.S. providers of engineering, construction management, legal, and financial services, and compile a list of those companies that express interest in participating in the Project.
For each source identified, the Contractor shall include, at least:

- company name;
- point of contact;
- address;
- telephone;
- e-mail; and
- description of goods and services provided.

Task 11 Deliverable: The Contractor shall prepare a report of all work performed under Task 11. The Task 11 Deliverable shall be included in the Final Report.

Task 12: Assessment of Long-Term Training Requirements

The Contractor shall assess the Grantee's existing capacity in various managerial and technical aspects of running a competitive wholesale gas market. The Contractor's assessment shall give particular emphasis to features which are new to the Ghanaian market such as direct sourcing and delivery of natural gas in a free-access regime, buying in spot markets, etc. Based on this assessment, the Contractor shall provide the Grantee with recommendations for long-term training programs that will strengthen the Grantee's capacity in this field. The Contractor shall estimate the costs of the recommended long-term training programs and provide the Grantee with recommendations for financing them. The Contractor shall provide the Grantee with detailed Terms of Reference for two training programs that would directly support the implementation of the Project.

Task 12 Deliverable: The Contractor shall prepare a report of all work performed under Task 12. The Task 12 Deliverable shall be included in the Final Report.

Task 13: Implementation Plan

The Contractor shall develop an implementation plan that identifies all the steps the Grantee will need to take subsequent to the completion of the FS and prior to Project implementation. The Contractor's recommendations shall include a suggested timeline and shall consider, at least:

- Environmental and social impact assessments which comply with local environmental and social requirements and those of multilateral lending agencies such as the World Bank;
- A full, in-depth siting study for the selected Project site;
- Regulatory, legal, and institutional requirements;
- Power purchase, off-take, and subsidy agreements;
- Financial arrangements;
- Procurement of goods and services; and
- Long-term training requirements.

Task 13 Deliverable: The Contractor shall prepare a report of all work performed under Task 13. The Task 13 Deliverable shall be included in the Final Report.

Task 14: Final Report

The Contractor shall prepare and deliver to the Grantee and USTDA a substantive and comprehensive final report of all work performed under these Terms of Reference ("Final Report"). The Final Report shall be organized according to the above tasks, and shall include all deliverables and documents that have been provided to the Grantee. The Final Report shall be prepared in accordance with Clause I of Annex II of the Grant Agreement.

Notes:

(1) The Contractor is responsible for compliance with U.S. export licensing requirements, if applicable, in the performance of the Terms of Reference.

(2) The Contractor and the Grantee shall be careful to ensure that the public version of the Final Report contains no security or confidential information.

(3) The Grantee and USTDA shall have an irrevocable, worldwide, royalty-free, non-exclusive right to use and distribute the Final Report and all work product that is developed under these Terms of Reference.

ANNEX 6

COMPANY INFORMATION

A. Company Profile

Provide the information listed below relative to the Offeror's firm. If the Offeror is proposing to subcontract some of the proposed work to another firm(s), the information requested in sections E and F below must be provided for each subcontractor.

1. Name of firm and business address (street address only), including telephone and fax numbers:

2. Year established (include predecessor companies and year(s) established, if appropriate).

3. Type of ownership (e.g. public, private or closely held).

4. If private or closely held company, provide list of shareholders and the percentage of their ownership.

5. List of directors and principal officers (President, Chief Executive Officer, Vice-President(s), Secretary and Treasurer; provide full names including first, middle and last). Please place an asterisk (*) next to the names of those principal officers who will be involved in the Feasibility Study.

6. If Offeror is a subsidiary, indicate if Offeror is a wholly-owned or partially-owned subsidiary. Provide the information requested in items 1 through 5 above for the Offeror's parent(s).

7. Project Manager's name, address, telephone number, e-mail address and fax number .

B. Offeror's Authorized Negotiator

Provide name, title, address, telephone number, e-mail address and fax number of the Offeror's authorized negotiator. The person cited shall be empowered to make binding commitments for the Offeror and its subcontractors, if any.

C. Negotiation Prerequisites

1. Discuss any current or anticipated commitments which may impact the ability of the Offeror or its subcontractors to complete the Feasibility Study as proposed and reflect such impact within the project schedule.

2. Identify any specific information which is needed from the Grantee before commencing contract negotiations.

D. Offeror's Representations

Please provide exceptions and/or explanations in the event that any of the following representations cannot be made:

1. Offeror is a corporation *[insert applicable type of entity if not a corporation]* duly organized, validly existing and in good standing under the laws of the State of _____. The Offeror has all the requisite corporate power and authority to conduct its business as presently conducted, to submit this proposal, and if selected, to execute and deliver a contract to the Grantee for the performance of the Feasibility Study. The Offeror is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment, or ineligible for the award of contracts by any federal or state governmental agency or authority.

2. The Offeror has included, with this proposal, a certified copy of its Articles of Incorporation, and a certificate of good standing issued within one month of the date of its proposal by the State of _____. The Offeror commits to notify USTDA and the Grantee if they become aware of any change in their status in the state in which they are incorporated. USTDA retains the right to request an updated certificate of good standing.

3. Neither the Offeror nor any of its principal officers have, within the three-year period preceding this RFP, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.

4. Neither the Offeror, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 3 above.

5. There are no federal or state tax liens pending against the assets, property or business of the Offeror. The Offeror, has not, within the three-year period preceding this RFP, been notified of any delinquent federal or state taxes in an amount that exceeds $3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.

6. The Offeror has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law. The Offeror has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.

The selected Offeror shall notify the Grantee and USTDA if any of the representations included in its proposal are no longer true and correct at the time of its entry into a contract with the Grantee.

Signed: _____
(Authorized Representative)

Print Name: _____

Title: _____

Date: _____

Subcontractor Profile

1. Name of firm and business address (street address only), including telephone and fax numbers.

2. Year established (include predecessor companies and year(s) established, if appropriate).

E. Subcontractor's Representations

If any of the following representations cannot be made, or if there are exceptions, the subcontractor must provide an explanation.

1. Subcontractor is a corporation *[insert applicable type of entity if not a corporation]* duly organized, validly existing and in good standing under the laws of the State of _____. The subcontractor has all the requisite corporate power and authority to conduct its business as presently conducted, to participate in this proposal, and if the Offeror is selected, to execute and deliver a subcontract to the Offeror for the performance of the Feasibility Study and to perform the Feasibility Study. The subcontractor is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment or ineligible for the award of contracts by any federal or state governmental agency or authority.

2. Neither the subcontractor nor any of its principal officers have, within the three-year period preceding this RFP, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.

3. Neither the subcontractor, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 2 above.

4. There are no federal or state tax liens pending against the assets, property or business of the subcontractor. The subcontractor, has not, within the three-year period preceding this RFP, been notified of any delinquent federal or state taxes in an amount that exceeds $3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.

5. The subcontractor has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law. The subcontractor has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.

The selected subcontractor shall notify the Offeror, Grantee and USTDA if any of the representations included in this proposal are no longer true and correct at the time of the Offeror's entry into a contract with the Grantee.

Signed: _____
(Authorized Representative)

Print Name: _____

Title: _____

Date: _____