

**REQUEST FOR PROPOSALS**  
**FEASIBILITY STUDY FOR THE**  
**PETROLEUM PRODUCTS PIPELINE PROJECT**

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

**LOCAL TIME**

**January 22, 2010**

Submission Place: MR. DUDLEY ACHU SAMA  
PRINCIPAL TECHNICAL ADVISER  
MINISTRY OF ENERGY AND WATER RESOURCES (MINEE)  
BP 308, YAOUNDE, CAMEROON

Phone: (237) 2223-5608

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\$615,000 to the Ministry of Energy and Water Resources ( Ministère de l'Énergie et de l'Eau ) or MINEE (the "Grantee") to fund the cost of goods and services required for a feasibility study on the proposed Petroleum Products Pipeline Project ("Project") in Cameroon in accordance with a grant agreement dated Sept 14, 2009 (the "Grant Agreement"). 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

This Feasibility Study is to support MINEE in the policy and technical planning and procurement of supplies and services for their petroleum products pipeline network. The objective of this feasibility study is to provide detailed advice on the conceptual technical design of the system, tendering and procurement of necessary equipment and services, the business plan for its operation, the engineering and operations plan, and means of financing this project. An important consideration is the evaluation and promotion of petroleum utilization in Cameroon's industry. A background Definitional Mission is provided for reference in Annex 2.

### 1.2 OBJECTIVE

The purpose of this Feasibility Study is to provide a sufficient level of technical and economic analysis and advice to the Grantee to reach the point of initiating a procurement tendering process and to apply for financing for the installation of the Pipeline System. However, the Contractor will not be expected to participate in the actual publication of the Request for Proposals (RFP) or in the vendor selection process.

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\$615,000. **The USTDA grant of \$US615,000 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\$615,000 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 Petroleum Products Pipeline.

### **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 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\$615,000.

## **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. DUDLEY ACHU SAMA  
PRINCIPAL TECHNICAL ADVISER  
MINISTRY OF ENERGY AND WATER RESOURCES (MINEE)  
BP 308, YAOUNDE, CAMEROON

Phone: (237) 2223-5608

**An Original and eight (8) copies of your proposal must be received at the above address no later than 4:00 p.m., on January 22, 2010.**

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 SIXTY (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\$615,000, 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 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. 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 \_\_\_\_\_.
2. 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.
3. 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 2 above.
4. 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.
5. 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. USTDA retains the right to request an updated certificate of good standing from the selected Offeror.

### **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:

- 1) The Firm, 30%: Demonstrated experience and ability in developing the technical operation of gas delivery systems. Offerors shall demonstrate relevant experience through project-specific examples that clearly identify the Offeror's roles and responsibilities. The Grantee will allocate points based on the quality and relevance of demonstrated experience.
- 2) The Proposal, 40%: Approach, methodology, and strategy for completing the Terms of Reference (in Annex V below) within the proposed timeline. In particular, Offerors shall note their approach, methodology and strategy for developing the economic and financial analyses that are required under Terms of Reference Tasks III and IV of the Project.
- 3) Personnel, 30%: The Grantee anticipates the following optimal skill sets for the completion of the Technical Assistance: (a) a Project Manager with experience in the technical design and planning of petroleum delivery systems and familiar with the latest on-shore production and petroleum processing technologies; (b) an Energy Economist with experience in the analysis of monetization options for petroleum products – industrial and domestic use and understand deregulation/unbundling issues and supply contracts/terms to advise on institutional issues in managing the infrastructure; (c) a Petroleum Market and Finance Specialist with experience in business planning, project financing and commercial operation of similar petroleum facilities; (d) a Pipeline Operations Engineer with experience in operations at similar petroleum terminals, facilities, and transmission systems.

In descending order of importance, the Grantee will allocate points according to each individual's: (i) demonstrated experience participating in similar projects (including project-specific examples that clearly identify the individual's roles and responsibilities); (ii) overall professional experience; (iii) demonstrated experience with client types (public and private sector client experience sought); and (iv) relevant education and highest degree earned.

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. DUDLEY ACHU SAMA  
PRINCIPAL TECHNICAL ADVISER  
MINISTRY OF ENERGY AND WATER RESOURCES (MINEE)  
BP 308, YAOUNDE, CAMEROON  
Phone and Fax: (237) 2223-5608

2009-11028A PETROLEUM PRODUCTS PIPELINE PROJECT

POC: John Kusnierek, USTDA, 1000 Wilson Boulevard, Suite 1600, Arlington, VA 22209-3901, Tel: (703) 875-4357, Fax: (703) 875-4009. PETROLEUM PRODUCTS PIPELINE PROJECT. The Grantee invites submission of qualifications and proposal data (collectively referred to as the "Proposal") from interested U.S. firms that are qualified on the basis of experience and capability to develop a feasibility study for the proposed Petroleum Products Pipeline Project in Cameroon.

This Feasibility Study is to support the Ministry of Energy and Water Resources ( Ministère de l'Énergie et de l'Eau ) or MINEE in the policy and technical planning and procurement of supplies and services for their petroleum products pipeline network. The objective of this feasibility study is to provide detailed advice on the conceptual technical design of the system, tendering and procurement of necessary equipment and services, the business plan for its operation, the engineering and operations plan, and means of financing this project. An important consideration is the evaluation and promotion of petroleum utilization in Cameroon's industry.

The purpose of this Feasibility Study is to provide a sufficient level of technical and economic analysis and advice to the Grantee to reach the point of initiating a procurement tendering process and to apply for financing for the installation of the Pipeline System. However, the Contractor will not be expected to participate in the actual publication of the Request for Proposals (RFP) or in the vendor selection process.

The U.S. firm selected will be paid in U.S. dollars from a \$615,000 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 PM LOCAL TIME, JANUARY 22, 2010 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**

## **CAMEROON: PETROLEUM PRODUCTS PIPELINE FEASIBILITY STUDY**

### **EXECUTIVE SUMMARY**

Most of Cameroon's non-electric domestic energy needs, and a significant proportion of its light and heavy industrial energy, comes from refined petroleum products. Other important fuels include wood and some coal, both of which are sources of significant air and water pollution. An important domestic fuel is Liquefied Petroleum Gas (LPG), which is distributed in domestic cylinders.

The country's only refinery is at the National Refining Company (SONARA) located at the town of Limbé, not far from the country's main industrial center at Douala. Bulk storage of the petroleum products is the responsibility of the Petroleum Bulk Storage (Petroleum Depot) Company (SCDP). They are responsible for maintaining terminals for the transfer of petroleum products to end-users and to transporters, typically road tanker trucks. There is a thriving downstream distribution and retailing industry. The Cameroon Petroleum Marketers Association (GPC) represents a large number of private retail outlets (service stations and LPG stores). Most of the road haulers (tanker trucks) are independent operators.

The Ministry of Energy and water Resources (MINEE) has a controlling stake in both SONARA and SCDP. The ownership of SONARA includes ExxonMobil Corp. (8%); the Government of Cameroon – via MINEE (66%); Shell International Ltd. (8%); and TOTAL (18%). TOTAL is currently the operator of the refinery, but this will change in 2010 when MINEE will assume technical operations. SCDP is a wholly controlled agency of MINEE. A serious operational difficulty is that SCDP lacks any independent petroleum liquids transportation capability of its own. While it does operate a port terminal for the import of crude for SONARA, and it owns the railroad cars and depot facilities, it is entirely dependent on the railway company CAMRAIL and independent truckers for transportation. Because of the sheer volume and growth in energy demand much of the transport sector is now dominated by the need to move large quantities of LPG bottles and cylinders of gasoline by road and rail.

In general, transportation of these energy products is also beginning to overwhelm the road and railway infrastructure. In part because LPG, for example, has to be transported in physical cylinders rather than truly in bulk; and in part because there is no pipeline infrastructure; roads and railways are becoming seriously congested with vehicles carrying petroleum liquids.

There are also at least two major strategic issues. Energy security is threatened because often a single road is the only way to transport gasoline to quite large urban centers. In fact, all the capital's gasoline is transported via one road and one rail line. In normal practice, a pipeline forms the main transportation route while surface container transport is simply a backup. The second main threat is to industrial development, especially in rural areas. It can now take an LPG cylinder several weeks to go from SONARA to the north and east by road. This adds to its cost and also limits the volume that can sensibly be transported.

We therefore see a need for a national liquid petroleum products pipeline network, to be used for the products of the SONARA refinery (and eventually other refineries) to be taken closer to the consumer. This pipeline can be a multi-product system, allowing different liquids (kerosene, gasoline, diesel, marine, LPG, etc.) to be carried in the same pipe. It is technically quite possible to use a single pipe for all SONARA's products. However, since a large proportion is LPG it may be technically convenient, subject to study, to lay a dedicated LPG line in parallel with a second multi-product line. One option, developed in speaking with MINEE and other stakeholders, would be this evolution that tackles high-volume and high-priority traffic first:

- A line from SONARA to distribution centers in Douala – probably close to the current road terminals – first, so that the main industrial center at Douala is served.
- A line to Yaoundé, the capital, also including terminals close to the current road terminals
- Branch lines from these trunk lines that serve medium-sized urban areas and rural distribution points nearby
- Eventually, a complete liquids transmission system that includes the north, east and remoter regions

This system will be able to host bulk storage facilities bigger than the ones currently owned by SCDP, and should definitely be planned with expanded road terminals for tankers in mind. There will still be a need for tankers (just as in the U.S.) to take the products from terminals to the stations and retail outlets. However, this traffic would now be strictly local.

A petroleum pipeline of this kind requires several important associated systems:

- A Supervisory Control, Automation and Data Acquisition (SCADA) system
- A Batch Scheduling System that allows the multiple products to be transported through the same pipe in batches
- Safety Systems, including Leak Detection
- Applications, including Inventory Management and Measurement, that allow commercial volumes delivered to be assessed. Regrettably, this must include fraud and theft detection.
- Terminal Automation systems that manage storage and deliveries / receipts at the terminals. These would have to interface with systems in place at the primary supplier, SONARA.

This project also has an institutional component. The pipeline would ideally need an independent commercial operator, and ideally an open-access policy including a transparent tariff and regulator. Realistically, the owner of this pipeline as with most energy infrastructure would initially be the Government of Cameroon. However, we encourage this Feasibility Study to explore means for improving the independence and

open access of this infrastructure, and to encourage private sector business and operational participation.

Because the need for such systems is widely accepted and is long-standing, and yet very little action has been taken to date, we recommend a Feasibility Study to address the relevant technical, commercial, institutional and financing issues directly. The FS should help to form the basis of a systematic program of development that the MINEE can promote within the industry. Our budget estimate for this FS, detailed below, is for \$610,694.

### Technical Terms

*Petroleum liquids* produced from a refinery include: several grades of gasoline (regular, unleaded, premium, etc.), several grades of kerosene (from domestic fuel to jet fuel), Marine and Aviation gas, etc. These can be transported in a single *multi-product pipeline* by batching them, and tracking them carefully so that a given batch is removed at a given point at the right time. Liquefied Petroleum Gas, LPG, is also transportable by pipeline. The liquids are either delivered directly to a large end-user at a terminal of the pipeline, or to a storage point where different grades can be kept awaiting onward transportation by road.

This project aims to study a complete *petroleum liquids transportation infrastructure* that will conceptually consist of three components: (1) a *multi-product pipeline* network; (2) *storage facilities* for the liquids; and (3) *loading terminals* for tankers.

A large, integrated systems procurement of this kind is rarely committed in a single, turnkey lump-sum contract. It usually follows this sequence:

- A Conceptual Design Study – or “pre-FEED” study (see next) – that analyzes and defines requirements and lays out the system components at a high level. It also provides order-of-magnitude budgets, timetables and other requirements. In other industries, this might be called a Feasibility Study. Perhaps 10,000 man-hours may go into such a study.
- A Front-End Engineering Design – FEED – which defines the engineering of the system. This is a detailed and expensive engineering study that defines the budget and plan. Maybe 50,000 man-hours would go into such a study.
- Engineering, Procurement and Construction – EPC – that builds the system. This is also often called Engineer, Procure, Install and Commission (EPIC).
- Commissioning and Start-Up, which tests each component of the system in a carefully designed sequence (defined in the FEED) and confirms that the delivered system is working as defined and is ready for acceptance by the end-user.
- Operations Support, during which the system may optionally be partially operated by the supplier and gradually turned over to the end-user during hands-on training.

We comment that the definition of Conceptual Design, pre-FEED and FEED studies vary widely between contractors. Some pre-FEED studies are extremely superficial; others are virtually a complete engineering design.

The Feasibility Study that we recommend is equivalent to a preliminary pre-FEED, with added components to cover finance, business and regulatory issues.

A complete Engineering, Procurement and Construction (EPC) contract will usually commit to all of the above stages (unless earlier work has already been done) with checkpoints in the project plan where the customer formally agrees to proceed to the next stage. In this way the supplier is able to adjust the budget and timetable (within limits) according to more detailed engineering analysis, and also the customer can limit the supply if performance is unsatisfactory or the budget has grown too large.

It is most probable that the entire contract for the supply of such infrastructure would be placed with just one EPC Contractor Company. However, from then on the EPC may source parts, materials, raw steel, etc. from wherever it is most convenient. They will also tend to use their own engineers, but probably look for local technicians and laborers. It is hard to estimate sources of supply in advance at this level. It will also depend on the EPC Company: some firms manufacture the majority of their own components at U.S. factories while even slightly smaller ones will buy and outsource nearly everything. However, it is fair to estimate that a U.S. EPC company will source at least 50% of its supplies from the U.S. and up to about 80%.

The Ministry of Energy and Water Resources of Cameroon is the Ministère de l'énergie et des eaux in French, abbreviated to MINEE.

## **PROJECT DESCRIPTION**

A complete petroleum transportation infrastructure is a considerable investment and can best be divided into three components:

4. Multi-product pipelines. These may either be single pipes, or perhaps a dedicated LNG line in parallel with a second liquids line depending on the proportion of LNG moved. These pipelines would include several management systems discussed above.
5. Delivery terminals, primarily for loading trucks for local transportation. For LPG, this may also include bottling plants.
6. Storage for the liquids, to facilitate scheduling of supply and delivery, and also for strategic supply security.

The Bulk Storage Company, SCDP already owns and operates facilities similar to items 2 and 3. However, their facilities will need to be upgraded and expanded in light of new requirements.

This transportation system touches another two stakeholders and therefore needs to be planned and timed according to their needs:

- The SONARA refinery that is Cameroon's only petroleum refinery and would be the main producer of liquids for the pipeline.
- The GPC (Petroleum Marketers Association) that represents a large number of private retail outlets (service stations and LPG stores). Most of the road haulers (tanker truckers) are also independent operators.

SONARA is located at Limbé, which is also a major port for the import of petroleum products. Limbé is about 100 km from Douala and Yaoundé, the capital, is about 200 km from Douala. SONARA itself produces 2M tonnes of product per year and is currently being upgraded to 3.5M tonnes. Nevertheless, Cameroon still imports 90% of its refined product consumption. One important reason why building new refineries and expanding SONARA is only marginally profitable is the transportation infrastructure. It is far more economic to import gasoline directly at Douala than to refine it at Limbé and then truck it in bulk.

An item for close study is the best logistical path for the pipeline and location of the delivery terminals. Also, since a large proportion of the liquids is LPG, it may be convenient to lay a dedicated LPG line in parallel with a second multi-product line. However, we see this evolution:

- First, a line from SONARA to distribution centers in Douala – probably close to the current road terminals;
- A line to Yaoundé, the capital, also including terminals close to the current road terminals;
- Branch lines from these trunk lines; and

- Eventually, a complete national liquids transmission system

A petroleum pipeline of this kind requires several important associated systems:

- A SCADA system
- A Batch Scheduling System
- Safety Systems, including Leak Detection
- Operational Applications that allow commercial volumes delivered to be assessed.
- Terminal Automation systems

An institutional issue that will have to be addressed is that "unbundled" energy markets tend to be more efficient than closed ones. There are distinct advantages to approaching this development as an open-access system, with separate production, transportation, shipping and marketing functions. The MINEE should consider the development of an independent transporter, to complement production (SONARA), marketing (MINEE) and shipping (GPC and other consumers).

A business risk is that petroleum prices are controlled by the state Fund for Energy Price Stability (CSPH). This fund is designed to provide national-level price stability via financial and insurance instruments. However, there is also a risk that petroleum prices may be fixed during an emergency or a global price increase.

### Project Estimates

The facilities costs for this project have never been studied before. However, we can make a very crude estimate based upon pipeline length and similar facilities in the U.S. Just the two lines SONARA – Douala and then Douala – Yaoundé represent a distance of around 300 km and a similar line in the U.S. would cost in the region of \$150M to build. Comparison with U.S. construction costs may be a large under-estimate, given the difficult terrain and local working conditions.

The estimates for revenues from the pipeline are approximately as follows:

- Total production at SONARA after its planned upgrade will be 3.5M T. Assuming an average tanker capacity of 10 T this represents about 90M tanker-km of transportation. Simply fuel costs for this transport are \$15M per year.
- Alternatively, this represents 5Bn BBL-km of transportation. At an average U.S. tariff of \$0.01 per BBBL-mi this represents a total annual transport tariff of \$25M per year.

Given that this only represents one-tenth of Cameroon's domestic consumption – although clearly a majority of this is consumed locally at Douala – we can estimate about 3-4 times this figure for total petroleum product transport.

Either way, we proceed to assume revenues in the range of \$50M per year for the system.

## Objectives

MINEE has stated its objectives to be:

- Reduce road and rail traffic usage for the haulage of petroleum products;
- Promote the use of petroleum products instead of more expensive and polluting wood and coal as fuels;
- Supply energy to new industries to help the economic development of Cameroon; and
- Ensure security of supply by providing a planned transportation and storage infrastructure.

Eventually this system would allow bulk transportation to local terminal facilities, so that tanker traffic would only be relatively local, and it would also allow access to remote and rural areas of the country for economic development.

## USTDA Support

A concern is that despite this need being quite well accepted, there has been very little concrete progress towards these objectives. There may be several reasons for this, including a fragmented set of roles and responsibilities, institutional confusion, a lack perhaps of private sector involvement and a sound comprehensive business / finance / technical plan.

We see USTDA being able to contribute to the latter issue by supporting a Feasibility Study into the development of a comprehensive petroleum liquids system in Cameroon. A suitable sponsor would be the MINEE, which is responsible for such strategic planning initiatives. It also directly controls the main shipper SONARA and the terminals / bulk storage company SCDP. Major objectives of this Feasibility Study should include:

- A study of requirements from the point of view of overall benefit to the economy of Cameroon and the petroleum industry in particular.
- A clear phased business plan, identifying not only the final state in, say, five years but also priority projects to begin the process soon. This timetable must be aligned both with a long-term goal in view, and with immediate priorities for exploiting petroleum resources soon for economic development.
- A technical review that provides input to the economics of the business plan by (a) providing infrastructure cost estimates and alternatives; and (b) providing properly risked timetables for development
- Organizational options that examine strategies to unbundled the market to encourage and optimize the participation of private industry and investors.
- Financing options aligned with the business plans that allow the necessary capital to be available to support these developments.
- Practical issues related to securing financing, including issues related to securing the best interest rate, guaranteeing repayments to the lender, the application process, and timetables.

### **PROJECT SPONSOR'S CAPABILITIES AND COMMITMENT**

The Ministry of Energy and Water Resources (MINEE) is one of the two main stakeholders in the oil industry in Cameroon. The other, the National Hydrocarbons Company (SNH), focuses only on the upstream production of petroleum. We recommend MINEE as the appropriate Project Sponsor for several reasons:

- They are already responsible for several transportation issues via its Storage Company subsidiary, SCDP
- The SONARA refinery that processes petroleum liquids is a subsidiary of MINEE.
- Perhaps most importantly, MINEE is responsible for the overall strategic direction of the energy industry – including petroleum – in the republic.

Nevertheless, the GPC (Petroleum Marketers Association) that represents a large number of private retail outlets (service stations and LPG stores) is most definitely an important stakeholder and should be involved as much as possible. Most of the road haulers (tanker truckers) are also independent operators.

At meetings with the MINEE during the DM Visit, and since, MINEE has expressed interest in a Feasibility Study that is crafted to assist in the planning, financing, technical analysis and operations planning for this project.

An FS is particularly important since a variety of specialized skills are required in this study. While MINEE has excellent economists and business experts, and SNH has excellent upstream engineers, this FS requires a blend of oil market expertise, facilities engineering, operations engineering and finance.

The MINEE, as part of the government, effectively has the financing ability of a sovereign nation.

### **Capacity to Service Debt**

Given our estimates of a project cost of around \$150M and incremental revenues of \$50M per year, this leaves substantial cash flow to service straight debt financing. Similar very high-level estimates make it very likely that, subject of course to detailed review; most of this system can be financed entirely from revenues from petroleum sales.

Some risks in this area, however:

- Refined Oil prices are volatile, and even in the US have ranged between \$2 and \$4 per gallon over the last few years. This will be all the worse if there is local Cameroonian regulation or subsidy of the oil price (via CSPH for example). The tariff for transportation would ideally be insulated from the price of the products carried.
- In general, there may be a low operational efficiency estimate because MINEE / SCDP tends to over-staff its operations in pursuit of a full-employment policy.

- The operational efficiency will also suffer if maintenance is not carried out regularly. Even a few days of downtime on this system will lead to serious losses of revenues. Similarly, theft and leakage from the pipeline can lead to substantial losses.

### **Project Sponsor's Commitment**

When we visited MINEE headquarters we met the entire ministry team. Interest in this Feasibility Study was confirmed by:

Mr. Jean-Bernard Sindeu  
The Minister  
Ministry of Energy and Water Resources  
Yaoundé, Cameroon  
Tel: 22 22 34 00

## **IMPLEMENTATION FINANCING**

The financing of the project should be part of the Feasibility Study provided by USTDA. However, we are sure that there are several options open, as follows:

### **Equity Participation**

It is unfortunate that the main downstream operator, TOTAL with an 18% share in SONARA, prefers not to take partial stakes in infrastructure projects, nor to participate in joint ventures. The other main equity owners in SONARA – ExxonMobil (8%) and Shell (8%) – are similar super-majors and difficult to work with. Perhaps a better option is to seek equity participation among companies involved in industrial consumption or distribution.

There are a number of local Cameroonian energy suppliers who may like to take an equity stake in this project. We met the representative of the Petroleum Marketers Association (GPC) during the DM visit. Although the members of this association are currently strictly involved in petroleum product marketing, they may be interested in the new petroleum market. However, with revenues in the \$400M per year range, they may not have significant cash on hand for a significant stake.

US Engineering Companies, who would be very pleased to execute this project, rarely provide equity participation or financing of their own. This, unfortunately, is in contrast with many Far-Eastern contractors who often do provide this flexibility. For example, Mitsui and Mitsubishi of Japan, Samsung of South Korea and Tata of India will all provide an integral financing package with large projects. Mitsubishi even has its own investment bank to help to do this.

### **Debt Financing**

It is our opinion that even with the cash flow from production that has been roughly estimated, debt financing should be easy to secure with a few extra requirements. The most notable requirement is the ability of MINEE's chosen contractor to deliver this project on budget, and the ability of MINEE to operate the facility to plan.

### **Ex-Im Bank**

This project would very likely qualify for Ex-Im Bank financing, providing the supplier of the system is US-based and the materials and services are sourced in the US. We spoke informally with:

Patrick Crilley,  
Director and Manager, South Texas  
Ex-Im Bank Southwest Regional Office  
1880 South Dairy Ashford II, Suite 405  
Houston, TX 77077  
(281) 721-0470  
(281) 679-0156 FAX

This project was described in the broadest terms and a conceptual loan for \$150M to MINEE was discussed. The feedback was as follows:

- Subject to review, an application for a loan to an agency of a Sovereign Nation, for supplies from an "A"-rated US supplier, is welcome.
- Nevertheless, Cameroon is rated as having an exposure level of 6 (out of a worst case of 7). The exposure fee would be around 8% - 9% for a direct loan on 5-year terms, but 15% - 17% for 10-year terms. Most loans are in fact on greater than 7-year terms.
- These interest rates are for "Sovereign Debt" – in other words, loans guaranteed by the Government of Cameroon. In practice, the Ministry will have to co-sign the loan agreement. Other rates for conventional borrowers are very high.
- Up to 85% of the project budget could be financed by Ex-Im. The remaining 15% must be paid directly from MINEE to the supplier. This can itself be financed, but it must be paid in cash to the US firm.
- The Ex-Im bank has certain policies relating to Foreign Content, Impact on Labor, Development Impact and so on – especially for loans of this size – but these are similar to the USDAs.
- However, subject to guidelines, Ex-Im Bank can support up to 30% of the value of the US exports for locally originated and/or manufactured goods and services. This will be attractive to MINEE since it allows the use of local labor and helps provide technology transfer

With cash flow to service loans from operations alone estimated above at \$120M per year this loan could be serviced on these terms, even at 17% interest.

The major issues seem to be:

- Securing 15% of the project cost (around \$12.5M) in cash for the direct payment to the US supplier. This would have to come either from the government General Fund, which is unlikely, or a second commercial bank loan.
- Ensuring that payments are consistently met purely from cash flow, in the potentially difficult operating environment described above.
- Depending on the petroleum price regime, securing hedges or other insurance against the price of petroleum, which strongly affects the primary source of revenue in this project

### **Other Potential Lenders**

Ex-Im Bank is perhaps the preferred source of direct loans, since it is fairly rapid, transparent and systematic in its policies. Other potential sources of funding include:

Packages assembled as part of the US supply contract from a variety of public, private and multi-lateral sources. There are several specialized US financing houses that assemble African loan packages.

The African Development Bank (AFDB), which emphasizes transportation and energy infrastructure projects. It must be said that although its financial standing has been restored, from near collapse, its operational credibility remains a work-in-progress. There are long delays in its decision-making and it remains a relatively small (about 6%) source of development finance for Africa.

The World Bank, as part of their Energy and Transportation development programs. The World Bank actually provides four times the financing in Africa that AFDB does. However, it often has strong political and economic requirements attached to its loans, which Ex-Im does not, and the decision-making process can be accordingly quite slow. In exchange, the commercial terms can be very attractive.

The Overseas Private Investment Corporation (OPIC) tends to focus on risk reduction in investment in Cameroon, but may nevertheless be available as a source of direct funding.

Unfortunately, a long history of mismanagement of debt in Cameroon has made conventional sources of capital expensive. Furthermore, the need to maintain currency levels and balance budgets has made the base rate and interest on bonds much higher than usual in the U.S. Private local and international merchant banks (Citibank, Standard Chartered, Barclays, etc.) can provide funding, but the Cameroonian base rate is very high – over 35%. For this reason even the government tends to borrow funds from offshore. The S&P Rating for Cameroon, which directly affects its ability to raise capital via bond issues, is currently B/B. We are therefore not optimistic about this project being financed by conventional instruments.

### **U.S. EXPORT POTENTIAL**

US firms are uniquely specialized in these technologies from experience in transporting products from refineries to market hubs all over the US in the deregulated domestic energy market. The US domestic common-carrier liquids products network is extremely heterogeneous and flexible with inventive and secure mechanisms for monetizing refined product. Our estimates above are for:

1. A 100 km line from Limbé to Douala – about \$50M;
2. A 200 km line from Douala to Yaoundé – about \$100M;

As we comment above, these may be under-estimated given local supply and labor conditions, as well as difficult terrain.

Qualified US supply firms include major Houston-based specialist EPC (Engineer, Procure, Construct) contractors like:

- Bechtel;
- Fluor;
- Halliburton / KBR;
- Mustang Engineering;
- NM Wood Group / JP Kenny;
- Parsons Engineering;
- Pegasus International;
- Willbros Group;

We restrict this list to the larger ones simply because they will need the qualifications and capacity to qualify for international financing requirements. There are also specialized US financing firms that cover African infrastructure development projects.

We have spoken with at least the following contacts regarding this project, all of which expressed interest:

Parsons – INTECSEA  
James G Osborn, Jr.  
Sr. VP Business Development  
(281) 987 0800

Fluor Offshore Solutions  
Joshua Loomes  
Facilities Engineering  
(281) 263 3513

Wood Group Production Facilities  
Bill Cochrane  
Director, Field Operations Development  
(281) 647 8300

Bechtel Offshore Facilities  
Raymond A. Bailey  
Project Procurement Manager  
(281) 249 1572

M&T Bank  
Benjamin Akuete  
VP International Finance, Africa  
(410) 244 4077

In discussions, the main issues include:

- Some firms are interested and qualified for some part of the supply, but not all. For instance, some companies are prepared to construct the plant facilities, but not the offshore systems. Very few are prepared to deliver financing and operations support.
- An attractive item with this specific project is that it is ready to begin, while also not having a critical deadline. The volumes to deliver are already there, but road haulage can still be used during construction.
- There was a concern to integrate pipeline / terminal / refinery operations closely. This makes it important to involve SONARA and SCDP as well.
- There is some concern that working for a state-owned agency like MINEE may slow the project, and therefore cash flow, considerably.

We have commented above that any of these EPC contractors may source parts, materials, raw steel, etc. from wherever it is most convenient. They will also tend to use their own engineers, but probably look for local technicians and laborers. However, in general for a project of this kind U.S. supplies are highly competitive for:

- Engineering design and implementation services
- Raw construction materials – steel pipe, fasteners, etc
- Construction machinery – pipe-laying boats, earth-moving equipment, etc
- Flow control devices – valves, pressure regulators, etc
- Fluid compression devices – pumps, turbines and compressors
- Associated Automation and Control systems: SCADA Batch Scheduling, Safety Systems, including Leak Detection, Operational Applications and Terminal Automation.

These supplies would constitute up to about 80% of the total project value.

Nevertheless, on-site manual and semi-skilled labor will probably be sourced either locally or from overseas. Similarly, less specialized construction material (cement, steel bars, etc) will probably be imported.

### **FOREIGN COMPETITION AND MARKET ENTRY ISSUES**

There are a number of qualified foreign competitors, experienced in plant construction and laying pipelines in difficult terrain. The largest ones include:

- Technip (Italy)
- Saipem (Italy)
- Beicip/Franlab (France)
- Alstom (France)
- Foster-Wheeler (U.K.)
- Aker-Kvaerner (Norway)

These firms will be highly competitive technically. We can expect a number of Far Eastern firms to be very competitive economically, though perhaps less competitive technically:

- Mitsui (Japan)
- Mitsubishi (Japan)
- Samsung (S. Korea)
- Hyundai (S. Korea)
- CNEEC (China)

Historically, French companies have distinct built-in advantages to exporting goods and services to Cameroon. Apart from a language, legal and commercial environment very similar to their domestic market, they also maintain valuable political and business connections to this day. USTDA support will help to ensure a procurement process that is less slanted towards traditional French suppliers.

Total, as a major stakeholder in SONARA, will definitely push for French suppliers including perhaps their own EPC affiliates.

Past procurement tendencies have tended to favor low price over quality and efficiency. This does disadvantage US Firms, who emphasize price-performance instead. In this respect, USTDA Feasibility Study would definitely help to screen out technically inferior proposals and plans.

This is particularly true in an environment at MINEE where staff are unfamiliar with Facilities Engineering in general, and pipeline technology in particular.

A second disadvantage in this project is that it is being solicited as a combined Financing – EPC – Operations Support package. There is the risk that simply being able to provide financing will dominate the selection. In this respect, most foreign contractors have a distinct advantage in being able to provide complete packages. US Firms tend, by contrast, to focus on the technical and engineering aspects and expect the customer to handle its own financing.

## **DEVELOPMENTAL IMPACT**

We see substantial Developmental Impact in the following categories:

**Infrastructure** - There is clearly a need in Cameroon to provide the facilities to utilize petroleum energy. This project is the first step towards a complete liquid products transportation infrastructure. Positive environmental impacts include the ability to reduce heavy road traffic and pollution by spillage dramatically.

**Human Capacity Building** - will arise both during the construction and commissioning phase, and during operations. Up to 30% local content is allowed, for example, under Ex-Im Bank financing rules, and this will likely take the form of using local construction and facilities firms. During commissioning of the system, local staff will be trained in its operation and maintenance. During operations, we see no reason why there should not be a gradual evolution towards 100% Cameroonian operation.

The USTDA FS itself will help by providing a Technical Orientation Visit for MINEE staff to visit similar facilities in the US.

We anticipate around 100 full-time engineering positions being required for the operation of the system, in addition to some expansion to MINEE's overall administrative structure. We also see potential expansion in the local Cameroonian facilities maintenance industry, to support the operation of the pipeline and plant.

**Technology Transfer and Productivity Improvements** - will, similarly, arise during commissioning of the system and operations. It is important for any supply to train and support, at least initially, the operation of the pipelines. Some of the components of the supply will be high technology including: SCADA, automation, safety systems, scheduling systems. This will contribute to the high technology knowledge base of the country.

**Other** - Financial revenue enhancements are clear, since this infrastructure represents transportation costs in the region of \$50M per year. These costs are currently being wasted in road transportation fuel consumption.

**Market Oriented Reforms** - may arise in two ways. The first is if MINEE uses this project as a first step towards deregulating the petroleum industry to allow multiple access, and a separate transportation function. As it is currently conceived, the MINEE and the government will be the only stakeholder in the project. However, this may evolve:

- If equity participation in this project can be found, then the Petroleum Pipeline will have to be separately owned;
- If the operators can negotiate ownership of some share of the produced petroleum, there will be multiple marketers beyond TRADEX; and
- If more customers and producers for the petroleum than the government-owned SONARA can be found, there will be multiple shippers.

### ***IMPACT ON THE ENVIRONMENT***

The only impact on the environment that we foresee from this project is entirely beneficial. It will allow the government of Cameroon to reduce the amount of wood burned as fuel, and to reduce the volume of heavy road traffic.

It will also be the mission of the USTDA advisor under the FS to ensure that conditions of performance for the delivery of this project meet US and international standards for the protection of the environment. The construction and operation of any pipeline carrying toxic petroleum products is always a potential hazard to the environment. For this reason, one of the tasks of the FS is to ensure that the design, construction and operation of the system have minimal negative environmental impact.

MINEE, as the future operator of these petroleum facilities, should be made aware of the requirements of avoiding emissions via leaks, spillage and theft. In this respect, we recommend membership of the US Environmental Protection Agency's international program that provides support for minimizing these emissions.

### **IMPACT ON U.S. LABOR**

We have reviewed the "Impact on U.S. Labor Statement" as contained in the Foreign Operations, Export Financing and Related Programs Appropriations legislation. That Statement details certain prohibitions on U.S. foreign assistance in cases in which the project to be funded, or the subsequent foreign country operation after the project is completed, would have a negative impact on U.S. labor.

Having examined the requirements of the U.S. legislation, we find that this project does not violate the provisions of the appropriations legislation.

The FS is primarily an infrastructure-building project that will strengthen the economy and ensure a level playing field for proposals for supply of this project. It will most likely stimulate additional U.S. investment and the increased competitive participation of U.S. companies, including the export of oil and petroleum related goods, services and technology to Cameroon. This will create future jobs for U.S. labor.

The project provides a future opportunity for U.S. engineering services, equipment and technology providers to expand their respective areas of business in Cameroon. However, it does not offer any financial incentive to a U.S. business enterprise currently located in the United States for the purpose of inducing that enterprise to relocate outside the United States with the effect of reducing the number of employees of such business enterprise in the United States because U.S. production is being replaced by such enterprise outside the United States.

The project does not assist in establishing or developing any export processing zone or designated area in which the tax, tariff, labor, environment, and safety laws of Cameroon do not apply, in part or in whole, to activities carried out within that zone or area.

The project does not provide assistance that contributes to the violation of internationally recognized workers rights.

The project does not provide direct assistance for establishing or expanding production of any commodity for export from Cameroon that is likely to be in surplus on world markets at the time the project becomes operative. The essence of the project is infrastructure building to allow Cameroon to monetize its petroleum reserves. The project will not cause substantial injury to US producers of the same, similar, or competing commodity. The project will provide a market for U.S. supply that heretofore was not available.

This FS will not lead to an export of existing U.S. labor overseas, but instead will add jobs to the U.S. economy. It will increase the opportunities for US labor and exports for various U.S. equipment, technology and services providers.

## **QUALIFICATIONS**

This Feasibility Study is to provide support to the MINEE in the planning and acquisition of supplies and services for the Petroleum Infrastructure Project. The contractor must provide reviews of:

- Any current Conceptual Design Studies and Proposals for this project;
- Any current Front-End Engineering & Design (FEED) studies for this project;
- Budget estimates and financing options;
- Timetables; and
- The business plan for the operation of the facilities, including pricing and market issues and risks.

The contractor will also be responsible for:

- A Business Plan for the development and operation of the Petroleum Infrastructure in the short-medium term (3 – 5 years);
- Delivery of a Technical Orientation Visit to the US, to see similar implementations commissioned by US contractors and operated by US petroleum companies; and
- Advising the MINEE on well-qualified US sources of supply.

The Petroleum Infrastructure project involves: gathering system(s); an onshore petroleum processing plant; and onshore dry petroleum transmission pipelines.

Delivery of this FS will therefore require a team with expertise in:

- The requirements analysis, technical design and planning of similar projects;
- The financing and commercial management of similar systems; and
- The technical operation of petroleum delivery systems.

### **1. Pipeline Facilities Engineer**

Experience in pipeline facilities requirements analysis, technical design and planning, in terminals, processing plants and onshore transmission pipelines.

Will have work experience at Engineering Design Firms, or EPC contractors.

Will have sufficient experience (at least 15 years) to review and criticize Conceptual Designs and FEED studies from multiple sources. He will also need the experience to be able to provide estimates of costs, timetables and technical factors necessary for planning an infrastructure development.

### **2. Energy Economist**

Experience in the analysis of monetization options for petroleum products – industrial and domestic use.

Will have work experience at an energy company, investor / merchant bank, public institutes, or research firms.

Will have sufficient experience (at least 15 years) to review and recommend pricing regimes, strategies and options for the promotion of petroleum relative to other sources of energy in Cameroon. Should understand deregulation / unbundling issues and supply contracts / terms to be able to advise on commercial issues in managing the infrastructure.

### **3. Petroleum Market and Finance Specialist**

Experience in business planning, project financing and commercial operation of similar petroleum facilities. This includes processing and transmission businesses.

Will have work experience at an EPC contractor, merchant bank, energy investor, and/or petroleum company. It is important to have worked at a petroleum company at some stage, to understand operational issues.

Will have sufficient experience (at least 15 years) to review and criticize Business Plans and Financing Packages from multiple sources. Should also be able to advise on alternative sources of funding or packages; and alternative commercialization strategies. Should understand deregulation / unbundling issues to be able to advise on institutional issues in managing the infrastructure.

### **4. Pipeline Operations Engineer**

Experience in operations at similar facilities. This includes terminal, processing and transmission systems.

It is important to have worked at a petroleum company at some stage, to understand operational issues.

Will have sufficient experience (at least 15 years) to review and develop Commissioning, Start-Up and Operations plans. Should also be able to advise on best practices, including Health, Safety and Environmental. Will have sufficient contacts in the industry to be able to plan and organize a Technical Orientation Visit to the US, to see similar implementations commissioned by US contractors and operated by US petroleum companies.

It is not necessary for the team to consist of exactly four individuals. One individual may cover two roles (Facilities and Operations Engineering, for example). Alternatively, one role may require two individuals (Petroleum Market Specialist plus a Project Finance Specialist, for example).

## JUSTIFICATION

USTDA involvement, in the form of Feasibility Study to this procurement, achieves these specific objectives:

It promotes trade, by providing world-class detailed technical advice to MINEE on the selection of options for the procurement of supplies and services related to this project. Several concepts are already outstanding, and given a certain lack of coordination and of experience procuring similar facilities, there is a risk of making poor decisions. MINEE needs exposure to best practices and technology in the US and the rest of the world.

MINEE past procurement tendencies have tended to favor low price over quality and efficiency. We also note certain built-in advantages for French suppliers in the business environment. This FS should help to emphasize price-performance instead. The FS would definitely help to screen out lower-priced technically inferior proposals and plans. This is particularly true since MINEE staff is unfamiliar with Facilities Engineering in general, and pipeline technology in particular.

It additionally adds value to overall project by accelerating the timetable of this procurement. Petroleum is already being flared in very large volumes, and there will shortly be a significant demand for petroleum at power stations. If the selection process can be shortened in any way, and a reliable supplier can be selected, then this will shorten the time to start-up.

Because this procurement is being solicited as a combined Financing – EPC – Operations Support package, there is the risk that simply being able to provide financing will dominate the selection. The FS should emphasize the alternative financing options available and the importance of a quality technical deliverable as well.

It specifically promotes trade with the US via advice on well-qualified US sources of supply and via a Technical Orientation Visit to the US.

If a qualified US contractor is selected as a result of this FS then the value to trade capacity is likely to be in excess of \$150M. Even if a US contractor is not selected, then USTDA will at least have contributed to the supply of a quality system for the delivery of at least 314 MMCFD petroleum / 3,000 BPD condensate or approximately \$380M per year – for the first phase, alone – to the Cameroonian economy.

Generally, U.S. Government policy priorities are achieved as described above in all areas of: Infrastructure (including positive environmental impacts); Human Capacity Building (including job creation); Technology Transfer and Productivity Improvements; and potential Market-Oriented Reforms.

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

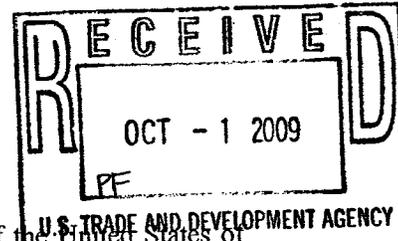
“Source” means the country from which shipment is made.

“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**

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 Government of the Republic of Cameroon acting through the Ministry of Energy and Water Resources ( Ministère de l'Énergie et de l'Eau ) or MINEE ("Grantee"). USTDA agrees to provide the Grantee under the terms of this Agreement US\$615,000 ("USTDA Grant") to fund the cost of goods and services required for a feasibility study ("Study") on the proposed Petroleum Products Pipeline Project ("Project") in Cameroon ("Host Country").

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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](http://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 December 31, 2011 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 Minister of Energy and Water Resources. 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. Dudley Achu Sama  
Principal Technical Advisor & Executive Engineer



Ministry of Energy and Water Resources/Ministère de l'Energie et de l'Eau  
(MINEE)  
P.O Box 307  
Yaounde, Cameroon

Phone: (237) 2223-5608  
Fax: (237) 2223-5608 or (237) 2222-6177  
Email: dsama2@yahoo.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 9/10 1001  
Activity No.: 2009-11028A  
Reservation No.: 2009110043  
Grant No.: GH2009110012

#### 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 Cameroon 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.

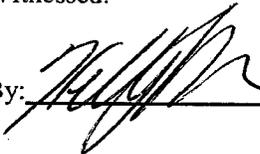
For the Government of the  
United States of America

For the Government of the  
Republic of Cameroon

By:   
Date: 09-14-09

By: \_\_\_\_\_  
Date: 14 SEPT 2009

Witnessed:

By:   **Michael NGAKO TOMDIO**

Annex I – Terms of Reference

Annex II – USTDA Mandatory Clauses

## Annex I

### Terms of Reference

#### Background

The Ministry of Energy and Water Resources (Ministère de l'Énergie et de l'Eau or MINEE) of Cameroon ("Grantee") is responsible for strategic planning of the energy industry in the Republic of Cameroon. It controls several key government owned companies in the petroleum sector:

- The National Oil Refining Company, (Société Nationale de Raffinage, or SONARA), which produces the majority of domestic petroleum products
- The Petroleum Bulk Storage Company (Société Camerounaise de Dépôts Pétroliers or SCDP)
- The state Fund for Energy Price Stability (Caisse de Stabilisation des Prix des Hydrocarbures or CSPH)

MINEE is also the regulator for private oil and gas companies.

Additional important stakeholders in the petroleum sector are the petroleum marketers associations, Groupement Professionnel du Pétrole (Professional Petroleum Group or GPP) and Groupement des Pétroliers Camerounais (The Cameroon Petroleum Association or GPC) which represent a large number of private retail outlets (service stations and Liquid Petroleum Gas ("LPG") stores).

There is an identified need for a national liquid petroleum products pipeline network to be used for the products of the SONARA refinery (and eventually other refineries) to be delivered closer to the consumer. This pipeline may be a single multi-product line, or it may be convenient to lay a dedicated LPG line in parallel. This pipeline would also benefit GPP and GPC since it would provide them with more efficient access to the products that they market.

MINEE sees an immediate need for a line from SONARA at Limbé to bulk storage and distribution centers in Douala, Limbé, Kribi and Yaoundé so that the country's main industrial center at Douala is served. There are also preliminary plans to add:

- A line to Yaoundé, the capital, including terminals close to the current road terminals
- Branch lines from these trunk lines that serve medium-sized urban areas such as regional headquarters and rural distribution points nearby
- Eventually, a complete liquids transmission system that includes the north, east and more remote regions



This system will have to be able to host bulk storage facilities that are larger than those currently available, and should be planned with expanded road terminals for tankers in mind. A petroleum pipeline of this kind will require several important associated systems:

- A Supervisory Control, Automation and Data Acquisition ("SCADA") system
- A batch scheduling system that allows the multiple products to be transported through the same pipe in batches
- Safety systems, including leak detection and spill response
- Applications, including inventory management and measurement, fraud and theft detection that allow commercial volumes delivered to be assessed
- Terminal automation systems that manage storage and deliveries / receipts at the terminals. These would have to interface with systems in place at the primary supplier, SONARA and at SCDP's primary or bulk storage facility

This Feasibility Study (FS) is to support MINEE in the policy and technical planning and procurement of supplies and services for their petroleum products pipeline network. The objective of this FS is to provide detailed advice on the conceptual technical design of the system, tendering and procurement of necessary equipment and services, the business plan for its operation, the engineering and operations plan, and means of financing this project. An important consideration is the evaluation and promotion of petroleum utilization in Cameroon's industry.

The Contractor should expect to work in the bilingual English-French environment of the Republic of Cameroon. The Contractor shall deliver all reports and other written materials to the Grantee in English. However, the Contractor may similarly receive materials in French or English and may need to converse with Grantee staff in either language.

#### Objective of the Feasibility Study

The Grantee intends to procure the infrastructure (the "Procurement") necessary to take liquid petroleum products, including various grades of gasoline, diesel oil kerosene and other refined hydrocarbons, by pipeline from the oil refinery to SCDP's bulk storage facility and to licensed secondary commercial distributor and consumers (the "Liquids Pipeline System", or "Pipeline System"). The Pipeline System is expected to start with a short pipeline running from Cameroon's only oil refinery, SONARA at the town of Limbé, to SCDP's bulk storage facility in the main industrial city at Douala, and then to develop into a network of pipelines connecting several refineries and cities. The Grantee also has the intention of operating these facilities, both technically and commercially, and may need to finance its purchase. At this stage, there are no detailed plans covering the actual design of the System, execution of this procurement, operation of the facilities, and potential funding mechanisms. The purpose of this Feasibility Study is to provide a sufficient level of technical and economic analysis and advice to the Grantee to reach the point of initiating a procurement tendering process and to apply for financing for the



installation of the Pipeline System. However, the Contractor will not be expected to participate in the actual publication of the Request for Proposals (RFP) or in the vendor selection process.

### Task I: Technical Conceptual Design

The first task has the objective of advising the Grantee on engineering alternatives that are available towards the Grantee's goal of developing the Pipeline System.

The Conceptual Design produced by this Task is only intended to provide general engineering design options, high-level budgetary costs, and broad timetables. It is not expected to go into the level of detail required of a Preliminary Front-End Engineering Design, often referred to as a pre-FEED. The Contractor shall conduct a data collection at the beginning of this task, during which the Contractor shall visit relevant locations in Cameroon to assess facilities and the terrain as necessary to prepare an informed preliminary Conceptual Design. Since the first phase of the Pipeline System is likely to run between the towns of Limbé and Douala, the Contractor shall visit at least the SONARA refinery, current SCDP storage and terminal facilities nearby and at Douala, and the potential route(s) from Limbé to Douala as well as any other locations agreed upon with the Grantee.

During data collection the Contractor shall discuss the Grantee's ideas for the Pipeline System at the Grantee's offices at Yaoundé. The Grantee shall ensure that all Major Stakeholders are also available for meetings.

The Contractor shall provide a review for the Grantee of any existing internal Grantee design concepts. The Contractor shall review proposed budgets, timetables, and technical options. The Grantee shall make this information available to the Contractor.

Independently of any previous work, the Contractor and Grantee shall agree upon a preliminary Conceptual Design of the System. This design will form the basis of the rest of the study. The Conceptual Design shall take into account the following aspects of the Pipeline System:

- The Pipeline System will have to be able to host bulk storage facilities that are larger than those currently available, and should be planned with expanded road terminals for tankers in mind.
- The Pipeline System will have to transport multiple distinct petroleum products in batches (a "Multi-Product Pipeline", "Batched System"), including all the current products of the SONARA refinery.

In the Conceptual Design, the Contractor shall examine the major components of the Pipeline System, including at least a line from SONARA at Limbé to bulk storage distribution centers in Douala and Yaoundé.



The Contractor shall also review the feasibility of plans to add under a fifty-year lifetime:

1. A line to Yaoundé, the capital, including terminals close to the current road terminals
2. Branch lines from these trunk lines that serve medium-sized urban areas and rural distribution points nearby
3. Eventually, a complete liquids transmission system that includes the north, east and more remote regions

The Contractor shall, in this Conceptual Design, identify useful engineering design alternatives that may include:

1. Plans for future refineries from which products may have to be gathered
2. Routes and design specifications for the transportation pipelines
3. Locations and sizes of storage depots and road tanker loading terminals
4. In general, options relating to the sizing of facilities including throughput capacity, storage capacity, expandability, etc.

The Contractor shall examine in detail the merits of laying one single, Multi-Product Pipeline against the merits of two parallel pipelines where one is dedicated to LPG.

The Contractor shall, as part of the Conceptual Design, include technical specifications and related capital and operating costs for supporting Operational Systems, including but not limited to:

1. A SCADA system
2. A batch scheduling system that allows the multiple products to be transported through the same pipe in batches
3. Safety systems, including leak detection and spill response
4. Applications, including inventory management and measurement, that allow commercial volumes delivered to be assessed
5. Terminal automation systems that manage storage and deliveries and receipts at the terminals that have the ability to interface with systems in place at the primary supplier, SONARA and storage and delivery terminals managed by SCDP

The Contractor shall provide typical timetables for the construction and operation of facilities related to this design basis. The Contractor shall also describe the impact of any of the engineering design alternatives that are identified on project plans and timetable. In addition, the Contractor shall examine viable alternatives for phasing the construction of facilities in time.

The Contractor shall provide budgetary estimates for the construction of facilities related to this design basis. The Contractor shall evaluate the impact of any of the engineering design or project planning alternatives that are identified on budget.

The Contractor shall share this Conceptual Design with the Major Stakeholders in the Pipeline System, who will be identified by the Grantee but will include at least:

1. SONARA
2. SCDP
3. GPC and GPP
4. The state Fund for Energy Price Stability (Caisse de Stabilisation des Prix des Hydrocarbures or CSPH) that is responsible for stability in petroleum fuel prices, and improving the stability and security of supply
5. The National Hydrocarbons Corporation (Société Nationale de Hydrocarbures or SNH)

The Contractor shall meet Grantee at the Grantee's offices at Yaoundé at the end of this task to present and to discuss its findings. These presentations shall also be made to all Major Stakeholders, and the Grantee shall ensure that all Major Stakeholders are available. At the end of these presentations, the technical design basis for proceeding with the FS will be established.

**Task I Deliverable:** The Contractor shall prepare and present a report of the work performed under Task I, including but not limited to a review of any proposals currently held by the Grantee, an agreed preliminary Conceptual Design, and a summary of design options that are relevant to the Grantee's plans for the Pipeline System. This Conceptual Design shall include a preliminary budget and project implementation plan. It shall also contain any other details pertinent to technology selection. The Task I Deliverable shall be included in the Final Report. The Task I Deliverable shall also be used as material for Tasks VI and VII below.

## **Task II: Operational Analysis**

The Grantee intends, once the Pipeline System has been successfully installed and commissioned, to operate it independently, either through own SCDP subsidiary or through a new entity. Task II has the objective of advising the Grantee on engineering best practices, procedures and tools ("Operations Plan") used in operating a system of this nature, as defined technically in Task I above. The Operations Plan produced by this Task is only intended as a preliminary Operations Plan the purpose of which is to enable the Contractor to accomplish the objective of the Feasibility Study stated above. It is not expected to go into the level of detail required of a detailed operations plan that is appropriate to an engineering supply contract.

The Contractor shall conduct initial meetings with the Grantee at the Grantee's offices at Yaoundé for data collection and to discuss the Grantee's conceptual operations plans and



relevant operations plans of Major Stakeholders. The Grantee shall ensure that all Major Stakeholders are available for meetings during Contractor's visit. During the data collection, the Contractor shall visit relevant locations as identified by the Major Stakeholders to assess facilities as necessary to prepare an informed preliminary Operations Plan.

The Contractor shall draft and agree upon a preliminary Operations Plan of the System with the Grantee. The Contractor is not expected to prepare a complete plan, since many key engineering and human factors will be unknown at this stage. This preliminary Operations Plan will form the basis of a specification that any final Operations Plan must meet. The Operations Plan shall examine the operations of all the major components of the Pipeline System, including at least:

1. Multi-product liquid petroleum pipelines
2. LPG pipelines, LPG storage facilities and LPG dispensing facilities
3. Petroleum storage plants
4. Delivery and receipt terminals for petroleum

The Contractor shall in particular examine issues related to the safe and efficient testing and start-up of any newly installed engineering facilities that may be received from an engineering contractor following construction of the Pipeline System.

The Contractor shall report in writing on the implementation of processes and procedures for health, safety and environmental protection that are internationally accepted, and relevant to the transportation of toxic and inflammable petroleum liquids.

The Contractor shall also report on the state of the art in the use of operational systems, including SCADA; systems modeling and optimization; leak and fault detection; inventory management; and batch tracking. Their utilization within a comprehensive Operations Plan, and in particular as part of a safety and environmental protection program, shall be explained clearly in the report to the Grantee.

The Contractor shall review the connections between the Operations Plan of the Pipeline System and the operations plans of Major Stakeholders, including at a minimum:

- SONARA, which produces the refined petroleum products
- SCDP, which manages the Bulk Storage of liquids and the delivery terminals
- MINEE, which will issue licenses and ensure the security of supply arrangements
- The Ministère De L'Industrie, Des Mines Et Du Developement Technologique (Ministry of Industries, Mines and Technological Development or MINIMDT) and the Ministère de l'Environnement et de la Protection de la Nature (Ministry of Environment and Nature Protection or MINEP), which will issue licenses for operational safety and hazardous installations
- CSPH, which will prepare the pricing framework for the Pipeline System
- SNH, which will participate in financing

At the end of this Task, the Contractor shall visit the Grantee at the Grantee's offices at Yaoundé to present and to discuss its findings. These presentations will be made to all Major Stakeholders, and the Grantee shall ensure that all Major Stakeholders are available.

**Task II Deliverable:** The Contractor shall prepare and present a report of the work performed under Task II, including a preliminary Operations Plan relevant to the operation of the Pipeline System. It should also contain any other details pertinent to technology selection. This report is intended to inform the Grantee about best practices for the operation of the Pipeline System following the construction of the Pipeline System. The Task II Deliverable shall be included in the Final Report.

### **Task III: Economic Analysis**

The Grantee intends the Pipeline System both to be a profitable business in its own right, and also to contribute to the economy of the Republic of Cameroon in general. Task III has as its objective an analysis of the commercial viability of the Pipeline System, its contribution to the economy and the energy industry of Cameroon, and means for optimizing both of these objectives. This study should be coupled with Task IV – Financial Analysis, below to ensure the viability of the plans from a financial perspective. In particular, the Contractor shall review potential business risks and commercial options. There will be input from Task I, which is designed to cost, and to timetable different technical alternatives.

The Contractor shall produce a high-level Business Plan for the commercial operation of the proposed Pipeline System.

The Contractor shall conduct a visit to the Grantee at the Grantee's offices at Yaoundé at the beginning for data collection for this task and to discuss the Grantee's economic objectives, and the objectives of Major Stakeholders. The Grantee shall ensure that all Major Stakeholders are available for meetings. During the data collection, the Contractor shall make sure to gather all supply, demand and pricing data as necessary to prepare an informed Business Plan.

The Contractor shall review estimates and forecasts for the forecasted revenues purely for transportation of petroleum liquids through the Pipeline System. The Contractor shall propose appropriate tariff models and means of billing the Major Stakeholders, shippers and marketers for their use of the Pipeline System. The Contractor shall then build a realistic revenue model for the Grantee. Following the revenue model, the Contractor shall build revenue forecasts based upon separate forecasts of supply and demand of petroleum provided by the Grantee.

The Contractor shall provide appropriate costs and plans for the construction of facilities, their operations and their financing, as part of other relevant Tasks in this FS. For this Task, the Contractor shall build separate economic models according to technical and financial options identified both in Tasks I and IV.



Bearing in mind that the Pipeline System will earn revenues from transportation, and not sale, of refined products, and that the price of fuels affects demand and therefore transportation volume, the Contractor shall assess any risks related to the economic model; in particular risks related to potential regulation of the price of domestic petroleum in Cameroon, or other market regulation of fuels, by the government through the CSPH.

The Contractor shall also assess the opportunities related to the economic model. In particular the Contractor shall address the development of a strategic reserve of petroleum fuels, which could help stabilize prices and supplies in coordination with CSPH and the replacement of current land (road and rail) and sea transportation by tanker of refined petroleum liquids with pipeline transport, thereby reducing inefficiency and damage to humans and public property that result from land transportation.

A major factor within the Economic Analysis is the development of priorities, both with a long-term goal in view, and with immediate priorities for exploiting petroleum resources soon for national economic development. The Contractor shall provide properly risked timetables for development. The Contractor shall consider:

1. Improving the security of supply of fuels in Cameroon
2. Reducing the load on the road infrastructure by replacing oil tanker truck traffic
3. Making petroleum fuels available to more remote areas, and at a lower cost, to accelerate industrial development
4. Increasing the contribution to budgetary revenue from transport
5. Any other national economic priorities identified by the Grantee

At the end of this task the Contractor shall visit the Grantee to present and to discuss its findings. Relevant parts of these presentations will also be made to Major Stakeholders, and the Grantee shall ensure that relevant Major Stakeholders are available. At the end of these presentations, the basic Business Plan for proceeding with the FS will be established.

**Task III Deliverable:** The Contractor shall prepare and present a report discussing the Economic Analysis and Business Plan for the commercial operation of the Pipeline System. It shall also contain any details pertinent to economic and operational alternatives. The Contractor will deliver a copy of the Economic Model used to reach the conclusions of this Task. The Task III Deliverable shall be included in the Final Report.

#### Task IV: Financial Analysis

The Grantee intends to finance the Pipeline System, and may either receive proposals for financing the costs of development, ownership, operation and maintenance of this Pipeline System as part of responses to Requests for Proposals ("RFP") for the Procurement, or the Grantee may have to finance the Procurement separately. In order to



help the Grantee to identify key potential sources of funding and relevant important related regulations and issues, the Contractor shall conduct a financial analysis of the Pipeline System.

The Contractor shall also advise the Grantee on options for the business operation of the Pipeline System. Among commercial options, the Contractor shall study potential public / private partnerships, sub-contracting of operations to third parties, use of third-party facilities and outsourcing, and other strategies to encourage private sector involvement and growth. The Contractor shall explore potential separation of transporter, shipper and marketer functions (unbundling) in the commercial operation of the pipeline.

The Contractor shall conduct an initial visit to the Grantee at the beginning of this task for data collection and to discuss the Grantee's sector development and sustainable financial objectives. The Grantee shall ensure that all Major Stakeholders are available to discuss their interest in potential equity and debt participation.

The Contractor shall provide a study of the availability of equity and debt financing as well as the views of potential public and private financing organizations, such as the World Bank, relevant regional multilateral development bank(s), the Export Import Bank of the United States and the Overseas Private Investment Corporation.

The Contractor shall review conventional financing options through commercial domestic and international investment banks.

The Contractor shall review the feasibility of bond issues to the public, either within Cameroon or abroad.

The Contractor shall describe the practical issues relating to key factors for obtaining the best interest rate possible, the correct presentation of relevant forms and applications, and means for guaranteeing repayment schedules to the lender. Since the Grantee may need to make direct applications for financing, at a minimum the Contractor shall review:

1. Key items in the application and procedures for identified feasible sources of funding
2. Key issues that control the overall cost of capital, at each of the identified feasible sources of funding, in debt and equity financing: sovereign guarantees, escrowed servicing payments, liens on property, loan terms, return on equity, interest rates for equity and debt, etc.
3. Key legal constraints, issues, and significant contractual provisions of any contracts with lending agencies

The Contractor shall also review the potential for partial debt and/or equity participation from the Major Stakeholders in this project.



The Contractor shall visit the Grantee at the end of this task to present and to discuss its findings.

**Task IV Deliverable:** The Contractor shall prepare and present a report on the work performed under Task IV, including a discussion of the financial model, which includes options for financing the Pipeline System. The Task IV Deliverable shall be included in the Final Report.

**Task V: Technical Visit to the US**

Since the Grantee has never undertaken a similar project before, the Contractor is expected to demonstrate first-hand how similar projects have been executed in the U.S. To this end the Contractor shall organize a Technical Visit to the U.S. with the objective of providing direct contact between the Grantee and operators of similar facilities identified by the Contractor in consultation with the Grantee.

The Grantee shall select a technical team of five members from among the Major Stakeholders (the "delegates") to send to the United States to meet with U.S. oil companies that operate similar pipeline infrastructure. The Contractor shall organize the visit, including schedules and agendas, and shall participate in all meetings. The visit shall last five business days, and shall include visits to three facilities similar to the planned Pipeline System.

The Contractor shall arrange for and supply the delegates' lodging, fully refundable economy class international and domestic air fare, land transportation, meals associated with the visit for the delegates involved in the activity, and interpretation services (when needed). The Contractor shall manage the arrangements for visas for the delegates.

The Contractor shall accompany the delegation and assist in all reasonable requests to obtain any information (catalogues, brochures, annual reports, regulatory requirements, operations manuals, compliance reports, etc.) identified by the delegation. This may require follow-up mailings after the delegation has departed.

Regarding meals associated with the visit, these shall be provided by the Contractor. The Contractor shall arrange and pay for delegate meals, the cost of which shall be determined by using as a guide, the amounts designated for meals in the U.S. Government Meals and Incidental Expenses subsistence allowance schedule. If delegates elect not to partake of the meal provided, they are free to eat elsewhere at their own expense. No incidental expenses shall be provided.

The Contractor shall arrange meetings with actual owners and operators of similar pipelines including the major Components listed above of the Grantee's System:

1. Multi-product petroleum liquids pipelines
2. Petroleum Storage Depots
3. Delivery and receipt terminals for petroleum



4. Liquid Petroleum Pipelines and storage; and LPG retail dispensing depots

The objective of the visit is to demonstrate how companies have financed, selected, procured, commissioned and operated similar facilities in the U.S. The visit shall also address the entire process of feasibility study, Front End Engineering Design, procurement, installation, commissioning and start-up. It shall then address operational issues related both to the technical aspects of ownership of the facilities and the economics and business aspects.

The Contractor shall arrange discussions that, with respect to facilities visited, will cover at a minimum:

1. The owner/operator's strategy for front-end planning for the facility; including engineering, operations, and business
2. How the facility was financed
3. The procurement process, and the engineering, installation, and commissioning process of the facility when new
4. The elements of the operations plan for the facility visited
5. How the business is managed

**Task V Deliverable:** The Contractor shall prepare a report that shall describe the meetings, the U.S. technologies and facilities reviewed, and any reactions to the application of the respective technologies. The Task V Deliverable shall be included in the Final Report.

**Task VI: Preparation of Conditions of Performance**

The Grantee intends to proceed to a Procurement of the facilities related to the Pipeline System, either via an international public RFP, or a limited RFP issued to pre-selected qualified suppliers. One of the stated objectives of this FS is to assist the Grantee in preparing and publishing this RFP.

The Contractor shall visit the Grantee at the beginning of the Task for data collection and to discuss the Grantee's objectives.

This RFP for engineering services shall contain a set of Conditions of Performance ("Conditions") that encompass a number of project execution requirements that the supplier commits to in the execution of the contract for engineering supplies and services. The Contractor shall draft for the Grantee those sections of the RFP involving:

1. Mutual obligations related to commercial items, including performance and other bonds, payment schedules and deadlines, financial guarantees, and similar items
2. Mutual financial obligations, including payment and loan guarantees



3. Technical specifications, including specific engineering standards that the supply (infrastructure and product quality) must meet
4. Project Management standards, including: execution processes, facility inspecting and compliance reporting, liaison, system testing, environmental management systems and similar items
5. Planning standards, including specific plans to be delivered, as part of the proposal, for commissioning, start-up and commercial operations such as maintenance, billing and metering plans
6. Standard warranty provisions
7. Standard training provisions

The Contractor shall also draft additional sections of the RFP that relate to technical Conditions of Performance. The Contractor shall draft for the Grantee those sections of the RFP involving:

1. Distinct phases and milestones including project stop and go/no-go decisions
2. Phased payments that include retainers in case of failed performance
3. Change management and selection of engineering alternatives at project milestones

The Contractor shall use the results of the previous Tasks above to develop the necessary Conditions in a format suitable for use in an RFP, according to the standard RFP formats in use by the Grantee. These same Conditions will also be provided in a format suitable for inclusion in an engineering supply contract.

Furthermore, the Contractor shall assist the Grantee in the preparation for publication of the RFP by including these Conditions within the standard RFP format used by the Grantee.

The Contractor shall visit the Grantee at the end of this task to present and to discuss its findings.

**Task VI Deliverable:** The Contractor shall prepare a document that shall specify the technical and commercial Conditions of the specifications of the Procurement. Furthermore, the Contractor shall assist the Grantee by including these Conditions within the standard RFP format used by the Grantee. The Task VI Deliverable shall be included in the Final Report.

#### **Task VII: Preparation of Tender Documents**

The Contractor shall further support the Grantee in the preparation of the relevant RFP for the Procurement by drafting the sections of the RFP that relate to the analysis in the Tasks performed under these Terms of Reference. Based on the findings of Task I and Task II, the Contractor shall draft:

1. A technical description of the project



## 2. The preliminary Operations Plan

Furthermore, the Contractor shall assist the Grantee in the preparation for publication of the RFP by including these sections within the standard RFP format used by the Grantee.

The Contractor shall provide the draft in a format to be agreed upon with the Grantee that is suitable for inclusion in a contract for the Grantee's use in negotiations with any potential supplier.

**Task VII Deliverable:** The Contractor shall prepare technical sections for Requests for Proposals as specified in Task VII for the Grantee's use in soliciting proposals to address needs defined in previous Tasks, and also relevant technical contract content. Furthermore, the Contractor shall assist the Grantee by including these sections within the standard RFP format used by the Grantee. The Task VII Deliverable shall be included in the Final Report.

### Task VIII: Regulatory Review

The Contractor shall discuss any regulations that would impact the Project's viability or prognosis to move forward. The contractor shall review binding engineering standards, environmental and safety standards, regulations that impact operations, regulations that constrain commerce, regulations that constrain labor, constraints on obtaining and servicing commercial loans, taxes and other levies, and regulations that impact the ability to do business in the energy sector in Cameroon.

The Contractor shall identify and discuss both regulations that are part of the law of Cameroon, especially those laws pertaining to related areas such as power generation and oil products marketing and applicable international regulations. The Contractor shall provide a brief discussion of why they apply and how such laws might impact the Project's viability.

The Contractor shall examine the impact of any current and potential future regulation of the Pipeline System and the price of energy commodities on the viability of the Project. The Contractor shall also propose institutional arrangements for regulating the Pipeline System, including operation-access rules and pricing services as well as license conditions for a Pipeline System operator.

**Task VIII Deliverable:** The Contractor shall prepare a report of the work performed under Task VIII including an assessment of the impact of local and international regulations on the Project's anticipated technical, financial and commercial viability. The Task VIII Deliverable shall be included in the Final Report.

### Task IX: Preliminary Environmental and Social Impact Assessment



The Contractor shall perform a preliminary review of the Project's anticipated social and environmental impacts with reference to Host Country requirements and those of multilateral lending agencies (such as the World Bank). The Contractor shall identify potential negative impacts, discuss the extent to which they can be mitigated, and outline plans for a more detailed environmental and social impact assessments if and when the Project moves forward to the implementation stage. The Contractor shall consider the impacts that may occur, including but not limited to plant or animal endangerment, disruption of agricultural outputs, destruction of livelihoods, relocation of people, and the flooding of ancestral heritage areas. This includes the identification of steps that will need to be undertaken by the Grantee subsequent to the study's completion and prior to Project implementation.

**Task IX Deliverable:** The Contractor shall prepare a preliminary environmental impact assessment that reviews the Project's anticipated impact on the environment. The Task IX Deliverable shall be included in the Final Report.

**Task X: Developmental Impact Assessment**

The Contractor shall perform an analysis of host country development impacts in the areas of: Infrastructure, Human Capacity Building, Technology Transfer and Productivity Improvement and/or Market-Oriented Reform). These Development Impact factors are intended to provide the Project's decision-makers and interested parties with a broader view of the Project's potential effects on the Host Country.

The Contractor shall place specific focus on the immediate impact of the Project covered under the Study. The Contractor shall consider and describe any additional developmental benefits that may result from the Project's implementation, including spin-off and demonstration effects. The contractor shall assess each of the following categories with respect to the Project's overall development impact:

*Infrastructure:* improvements in the physical, financial, and social infrastructure of Cameroon.

*Technology Transfer and Productivity Improvements:* introduction of advanced technologies and improvement of processes that stimulate greater economic productivity.

*Human Capacity Building:* new job opportunities, sustained employment, or advanced training to upgrade the capability of the workforce.

*Market-Oriented Reforms:* transparency and private sector participation.

*Other/Spin-Off Effects:* any other developmental benefits derived from the Project including, for example, increased good governance or improved financial revenue flows to Cameroon.



**Task X Deliverable:** The Contractor shall prepare a developmental impact assessment, which reviews the Project's anticipated developmental impacts. The Task X Deliverable shall be included in the Final Report.

**Task XI: Potential U.S. Sources of Supply**

The Contractor shall create a comprehensive and searchable list of potential U.S. sources of supply with reference to the Requests for Proposals developed under Task VII. The Contractor shall include the business name, point of contact, address, telephone, e-mail, and fax numbers for each identified source.

**Task XI Deliverable:** The Contractor shall prepare a list of potential U.S. sources of supply, which may be used in the implementation of the Project. The Task XI Deliverable shall be included in the Final Report.

**Task XII: Implementation Plan**

The Contractor shall draft an implementation plan which describes the next steps to be taken upon completion of the Study and prior to the start-up of the proposed Pipeline System. The Contractor shall describe:

1. The need for a detailed environmental impact assessment and a cost estimate for such an assessment.
2. The need for a detailed geotechnical analysis including a geological and geophysical inspection of terrain, drilling for and securing oil samples, field and laboratory tests of surface soils and subsurface soil and rock samples, and an assessment of the geological and seismic stability of the affected area as well as a cost estimate for such an analysis.
3. The permits, public hearings and similar proceedings that may be required during the approval process.

**Task XII Deliverable:** The Contractor shall prepare an Implementation Plan which describes the next steps to be taken upon completion of the Study and prior to start-up of the proposed Pipeline System. The Task XII deliverable shall be included in the Final Report.

**Task XIII 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.



The Contractor shall provide to the Grantee five (5) hard copies of the Final Report and ten (10) electronic copies on read-write CD-ROM disks.

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 the Government of the Republic of Cameroon acting through the Ministry of Energy and Water Resources ( Ministère de l'Énergie et de l'Eau) or MINEE ("Client"), dated \_\_\_\_\_ ("Grant Agreement"). The Client has selected \_\_\_\_\_ ("Contractor") to perform the feasibility study ("Study") for the **Petroleum Products Pipeline project** ("Project") in Cameroon ("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



Annex II-5



(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 December 31, 2011, 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 9/10 1001
Activity No.:	2009-11028A
Reservation No.:	2009110043
Grant No.:	GH2009110012

**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**

## Annex I

### Terms of Reference

#### Background

The Ministry of Energy and Water Resources (Ministère de l'Energie et de l'Eau or MINEE) of Cameroon ("Grantee") is responsible for strategic planning of the energy industry in the Republic of Cameroon. It controls several key government owned companies in the petroleum sector:

- The National Oil Refining Company, (Société Nationale de Raffinage, or SONARA), which produces the majority of domestic petroleum products
- The Petroleum Bulk Storage Company (Société Camerounaise de Dépôts Pétroliers or SCDP)
- The state Fund for Energy Price Stability (Caisse de Stabilisation des Prix des Hydrocarbures or CSPH)

MINEE is also the regulator for private oil and gas companies.

Additional important stakeholders in the petroleum sector are the petroleum marketers associations, Groupement Professionnel du Pétrole (Professional Petroleum Group or GPP) and Groupement des Pétroliers Camerounais (The Cameroon Petroleum Association or GPC) which represent a large number of private retail outlets (service stations and Liquid Petroleum Gas ("LPG") stores).

There is an identified need for a national liquid petroleum products pipeline network to be used for the products of the SONARA refinery (and eventually other refineries) to be delivered closer to the consumer. This pipeline may be a single multi-product line, or it may be convenient to lay a dedicated LPG line in parallel. This pipeline would also benefit GPP and GPC since it would provide them with more efficient access to the products that they market.

MINEE sees an immediate need for a line from SONARA at Limbé to bulk storage and distribution centers in Douala, Limbé, Kribi and Yaoundé so that the country's main industrial center at Douala is served. There are also preliminary plans to add:

- A line to Yaoundé, the capital, including terminals close to the current road terminals
- Branch lines from these trunk lines that serve medium-sized urban areas such as regional headquarters and rural distribution points nearby
- Eventually, a complete liquids transmission system that includes the north, east and more remote regions



This system will have to be able to host bulk storage facilities that are larger than those currently available, and should be planned with expanded road terminals for tankers in mind. A petroleum pipeline of this kind will require several important associated systems:

- A Supervisory Control, Automation and Data Acquisition ("SCADA") system
- A batch scheduling system that allows the multiple products to be transported through the same pipe in batches
- Safety systems, including leak detection and spill response
- Applications, including inventory management and measurement, fraud and theft detection that allow commercial volumes delivered to be assessed
- Terminal automation systems that manage storage and deliveries / receipts at the terminals. These would have to interface with systems in place at the primary supplier, SONARA and at SCDP's primary or bulk storage facility

This Feasibility Study (FS) is to support MINEE in the policy and technical planning and procurement of supplies and services for their petroleum products pipeline network. The objective of this FS is to provide detailed advice on the conceptual technical design of the system, tendering and procurement of necessary equipment and services, the business plan for its operation, the engineering and operations plan, and means of financing this project. An important consideration is the evaluation and promotion of petroleum utilization in Cameroon's industry.

The Contractor should expect to work in the bilingual English-French environment of the Republic of Cameroon. The Contractor shall deliver all reports and other written materials to the Grantee in English. However, the Contractor may similarly receive materials in French or English and may need to converse with Grantee staff in either language.

#### Objective of the Feasibility Study

The Grantee intends to procure the infrastructure (the "Procurement") necessary to take liquid petroleum products, including various grades of gasoline, diesel oil kerosene and other refined hydrocarbons, by pipeline from the oil refinery to SCDP's bulk storage facility and to licensed secondary commercial distributor and consumers (the "Liquids Pipeline System", or "Pipeline System"). The Pipeline System is expected to start with a short pipeline running from Cameroon's only oil refinery, SONARA at the town of Limbé, to SCDP's bulk storage facility in the main industrial city at Douala, and then to develop into a network of pipelines connecting several refineries and cities. The Grantee also has the intention of operating these facilities, both technically and commercially, and may need to finance its purchase. At this stage, there are no detailed plans covering the actual design of the System, execution of this procurement, operation of the facilities, and potential funding mechanisms. The purpose of this Feasibility Study is to provide a sufficient level of technical and economic analysis and advice to the Grantee to reach the point of initiating a procurement tendering process and to apply for financing for the



installation of the Pipeline System. However, the Contractor will not be expected to participate in the actual publication of the Request for Proposals (RFP) or in the vendor selection process.

### Task I: Technical Conceptual Design

The first task has the objective of advising the Grantee on engineering alternatives that are available towards the Grantee's goal of developing the Pipeline System.

The Conceptual Design produced by this Task is only intended to provide general engineering design options, high-level budgetary costs, and broad timetables. It is not expected to go into the level of detail required of a Preliminary Front-End Engineering Design, often referred to as a pre-FEED. The Contractor shall conduct a data collection at the beginning of this task, during which the Contractor shall visit relevant locations in Cameroon to assess facilities and the terrain as necessary to prepare an informed preliminary Conceptual Design. Since the first phase of the Pipeline System is likely to run between the towns of Limbé and Douala, the Contractor shall visit at least the SONARA refinery, current SCDP storage and terminal facilities nearby and at Douala, and the potential route(s) from Limbé to Douala as well as any other locations agreed upon with the Grantee.

During data collection the Contractor shall discuss the Grantee's ideas for the Pipeline System at the Grantee's offices at Yaoundé. The Grantee shall ensure that all Major Stakeholders are also available for meetings.

The Contractor shall provide a review for the Grantee of any existing internal Grantee design concepts. The Contractor shall review proposed budgets, timetables, and technical options. The Grantee shall make this information available to the Contractor.

Independently of any previous work, the Contractor and Grantee shall agree upon a preliminary Conceptual Design of the System. This design will form the basis of the rest of the study. The Conceptual Design shall take into account the following aspects of the Pipeline System:

- The Pipeline System will have to be able to host bulk storage facilities that are larger than those currently available, and should be planned with expanded road terminals for tankers in mind.
- The Pipeline System will have to transport multiple distinct petroleum products in batches (a "Multi-Product Pipeline", "Batched System"), including all the current products of the SONARA refinery.

In the Conceptual Design, the Contractor shall examine the major components of the Pipeline System, including at least a line from SONARA at Limbé to bulk storage distribution centers in Douala and Yaoundé.



The Contractor shall also review the feasibility of plans to add under a fifty-year lifetime:

1. A line to Yaoundé, the capital, including terminals close to the current road terminals
2. Branch lines from these trunk lines that serve medium-sized urban areas and rural distribution points nearby
3. Eventually, a complete liquids transmission system that includes the north, east and more remote regions

The Contractor shall, in this Conceptual Design, identify useful engineering design alternatives that may include:

1. Plans for future refineries from which products may have to be gathered
2. Routes and design specifications for the transportation pipelines
3. Locations and sizes of storage depots and road tanker loading terminals
4. In general, options relating to the sizing of facilities including throughput capacity, storage capacity, expandability, etc.

The Contractor shall examine in detail the merits of laying one single, Multi-Product Pipeline against the merits of two parallel pipelines where one is dedicated to LPG.

The Contractor shall, as part of the Conceptual Design, include technical specifications and related capital and operating costs for supporting Operational Systems, including but not limited to:

1. A SCADA system
2. A batch scheduling system that allows the multiple products to be transported through the same pipe in batches
3. Safety systems, including leak detection and spill response
4. Applications, including inventory management and measurement, that allow commercial volumes delivered to be assessed
5. Terminal automation systems that manage storage and deliveries and receipts at the terminals that have the ability to interface with systems in place at the primary supplier, SONARA and storage and delivery terminals managed by SCDP

The Contractor shall provide typical timetables for the construction and operation of facilities related to this design basis. The Contractor shall also describe the impact of any of the engineering design alternatives that are identified on project plans and timetable. In addition, the Contractor shall examine viable alternatives for phasing the construction of facilities in time.

The Contractor shall provide budgetary estimates for the construction of facilities related to this design basis. The Contractor shall evaluate the impact of any of the engineering design or project planning alternatives that are identified on budget.

The Contractor shall share this Conceptual Design with the Major Stakeholders in the Pipeline System, who will be identified by the Grantee but will include at least:

1. SONARA
2. SCDP
3. GPC and GPP
4. The state Fund for Energy Price Stability (Caisse de Stabilisation des Prix des Hydrocarbures or CSPH) that is responsible for stability in petroleum fuel prices, and improving the stability and security of supply
5. The National Hydrocarbons Corporation (Société Nationale de Hydrocarbures or SNH)

The Contractor shall meet Grantee at the Grantee's offices at Yaoundé at the end of this task to present and to discuss its findings. These presentations shall also be made to all Major Stakeholders, and the Grantee shall ensure that all Major Stakeholders are available. At the end of these presentations, the technical design basis for proceeding with the FS will be established.

**Task I Deliverable:** The Contractor shall prepare and present a report of the work performed under Task I, including but not limited to a review of any proposals currently held by the Grantee, an agreed preliminary Conceptual Design, and a summary of design options that are relevant to the Grantee's plans for the Pipeline System. This Conceptual Design shall include a preliminary budget and project implementation plan. It shall also contain any other details pertinent to technology selection. The Task I Deliverable shall be included in the Final Report. The Task I Deliverable shall also be used as material for Tasks VI and VII below.

#### **Task II: Operational Analysis**

The Grantee intends, once the Pipeline System has been successfully installed and commissioned, to operate it independently, either through own SCDP subsidiary or through a new entity. Task II has the objective of advising the Grantee on engineering best practices, procedures and tools ("Operations Plan") used in operating a system of this nature, as defined technically in Task I above. The Operations Plan produced by this Task is only intended as a preliminary Operations Plan the purpose of which is to enable the Contractor to accomplish the objective of the Feasibility Study stated above. It is not expected to go into the level of detail required of a detailed operations plan that is appropriate to an engineering supply contract.

The Contractor shall conduct initial meetings with the Grantee at the Grantee's offices at Yaoundé for data collection and to discuss the Grantee's conceptual operations plans and



relevant operations plans of Major Stakeholders. The Grantee shall ensure that all Major Stakeholders are available for meetings during Contractor's visit. During the data collection, the Contractor shall visit relevant locations as identified by the Major Stakeholders to assess facilities as necessary to prepare an informed preliminary Operations Plan.

The Contractor shall draft and agree upon a preliminary Operations Plan of the System with the Grantee. The Contractor is not expected to prepare a complete plan, since many key engineering and human factors will be unknown at this stage. This preliminary Operations Plan will form the basis of a specification that any final Operations Plan must meet. The Operations Plan shall examine the operations of all the major components of the Pipeline System, including at least:

1. Multi-product liquid petroleum pipelines
2. LPG pipelines, LPG storage facilities and LPG dispensing facilities
3. Petroleum storage plants
4. Delivery and receipt terminals for petroleum

The Contractor shall in particular examine issues related to the safe and efficient testing and start-up of any newly installed engineering facilities that may be received from an engineering contractor following construction of the Pipeline System.

The Contractor shall report in writing on the implementation of processes and procedures for health, safety and environmental protection that are internationally accepted, and relevant to the transportation of toxic and inflammable petroleum liquids.

The Contractor shall also report on the state of the art in the use of operational systems, including SCADA; systems modeling and optimization; leak and fault detection; inventory management; and batch tracking. Their utilization within a comprehensive Operations Plan, and in particular as part of a safety and environmental protection program, shall be explained clearly in the report to the Grantee.

The Contractor shall review the connections between the Operations Plan of the Pipeline System and the operations plans of Major Stakeholders, including at a minimum:

- SONARA, which produces the refined petroleum products
- SCDP, which manages the Bulk Storage of liquids and the delivery terminals
- MINEE, which will issue licenses and ensure the security of supply arrangements
- The Ministère De L'Industrie, Des Mines Et Du Développement Technologique (Ministry of Industries, Mines and Technological Development or MINIMIDT) and the Ministère de l'Environnement et de la Protection de la Nature (Ministry of Environment and Nature Protection or MINEP), which will issue licenses for operational safety and hazardous installations
- CSPH, which will prepare the pricing framework for the Pipeline System
- SNH, which will participate in financing



At the end of this Task, the Contractor shall visit the Grantee at the Grantee's offices at Yaoundé to present and to discuss its findings. These presentations will be made to all Major Stakeholders, and the Grantee shall ensure that all Major Stakeholders are available.

**Task II Deliverable:** The Contractor shall prepare and present a report of the work performed under Task II, including a preliminary Operations Plan relevant to the operation of the Pipeline System. It should also contain any other details pertinent to technology selection. This report is intended to inform the Grantee about best practices for the operation of the Pipeline System following the construction of the Pipeline System. The Task II Deliverable shall be included in the Final Report.

### Task III: Economic Analysis

The Grantee intends the Pipeline System both to be a profitable business in its own right, and also to contribute to the economy of the Republic of Cameroon in general. Task III has as its objective an analysis of the commercial viability of the Pipeline System, its contribution to the economy and the energy industry of Cameroon, and means for optimizing both of these objectives. This study should be coupled with Task IV – Financial Analysis, below to ensure the viability of the plans from a financial perspective. In particular, the Contractor shall review potential business risks and commercial options. There will be input from Task I, which is designed to cost, and to timetable different technical alternatives.

The Contractor shall produce a high-level Business Plan for the commercial operation of the proposed Pipeline System.

The Contractor shall conduct a visit to the Grantee at the Grantee's offices at Yaoundé at the beginning for data collection for this task and to discuss the Grantee's economic objectives, and the objectives of Major Stakeholders. The Grantee shall ensure that all Major Stakeholders are available for meetings. During the data collection, the Contractor shall make sure to gather all supply, demand and pricing data as necessary to prepare an informed Business Plan.

The Contractor shall review estimates and forecasts for the forecasted revenues purely for transportation of petroleum liquids through the Pipeline System. The Contractor shall propose appropriate tariff models and means of billing the Major Stakeholders, shippers and marketers for their use of the Pipeline System. The Contractor shall then build a realistic revenue model for the Grantee. Following the revenue model, the Contractor shall build revenue forecasts based upon separate forecasts of supply and demand of petroleum provided by the Grantee.

The Contractor shall provide appropriate costs and plans for the construction of facilities, their operations and their financing, as part of other relevant Tasks in this FS. For this Task, the Contractor shall build separate economic models according to technical and financial options identified both in Tasks I and IV.

Bearing in mind that the Pipeline System will earn revenues from transportation, and not sale, of refined products, and that the price of fuels affects demand and therefore transportation volume, the Contractor shall assess any risks related to the economic model; in particular risks related to potential regulation of the price of domestic petroleum in Cameroon, or other market regulation of fuels, by the government through the CSPH.

The Contractor shall also assess the opportunities related to the economic model. In particular the Contractor shall address the development of a strategic reserve of petroleum fuels, which could help stabilize prices and supplies in coordination with CSPH and the replacement of current land (road and rail) and sea transportation by tanker of refined petroleum liquids with pipeline transport, thereby reducing inefficiency and damage to humans and public property that result from land transportation.

A major factor within the Economic Analysis is the development of priorities, both with a long-term goal in view, and with immediate priorities for exploiting petroleum resources soon for national economic development. The Contractor shall provide properly risked timetables for development. The Contractor shall consider:

1. Improving the security of supply of fuels in Cameroon
2. Reducing the load on the road infrastructure by replacing oil tanker truck traffic
3. Making petroleum fuels available to more remote areas, and at a lower cost, to accelerate industrial development
4. Increasing the contribution to budgetary revenue from transport
5. Any other national economic priorities identified by the Grantee

At the end of this task the Contractor shall visit the Grantee to present and to discuss its findings. Relevant parts of these presentations will also be made to Major Stakeholders, and the Grantee shall ensure that relevant Major Stakeholders are available. At the end of these presentations, the basic Business Plan for proceeding with the FS will be established.

**Task III Deliverable:** The Contractor shall prepare and present a report discussing the Economic Analysis and Business Plan for the commercial operation of the Pipeline System. It shall also contain any details pertinent to economic and operational alternatives. The Contractor will deliver a copy of the Economic Model used to reach the conclusions of this Task. The Task III Deliverable shall be included in the Final Report.

**Task IV: Financial Analysis**

The Grantee intends to finance the Pipeline System, and may either receive proposals for financing the costs of development, ownership, operation and maintenance of this Pipeline System as part of responses to Requests for Proposals ("RFP") for the Procurement, or the Grantee may have to finance the Procurement separately. In order to

help the Grantee to identify key potential sources of funding and relevant important related regulations and issues, the Contractor shall conduct a financial analysis of the Pipeline System.

The Contractor shall also advise the Grantee on options for the business operation of the Pipeline System. Among commercial options, the Contractor shall study potential public / private partnerships, sub-contracting of operations to third parties, use of third-party facilities and outsourcing, and other strategies to encourage private sector involvement and growth. The Contractor shall explore potential separation of transporter, shipper and marketer functions (unbundling) in the commercial operation of the pipeline.

The Contractor shall conduct an initial visit to the Grantee at the beginning of this task for data collection and to discuss the Grantee's sector development and sustainable financial objectives. The Grantee shall ensure that all Major Stakeholders are available to discuss their interest in potential equity and debt participation.

The Contractor shall provide a study of the availability of equity and debt financing as well as the views of potential public and private financing organizations, such as the World Bank, relevant regional multilateral development bank(s), the Export Import Bank of the United States and the Overseas Private Investment Corporation.

The Contractor shall review conventional financing options through commercial domestic and international investment banks.

The Contractor shall review the feasibility of bond issues to the public, either within Cameroon or abroad.

The Contractor shall describe the practical issues relating to key factors for obtaining the best interest rate possible, the correct presentation of relevant forms and applications, and means for guaranteeing repayment schedules to the lender. Since the Grantee may need to make direct applications for financing, at a minimum the Contractor shall review:

1. Key items in the application and procedures for identified feasible sources of funding
2. Key issues that control the overall cost of capital, at each of the identified feasible sources of funding, in debt and equity financing: sovereign guarantees, escrowed servicing payments, liens on property, loan terms, return on equity, interest rates for equity and debt, etc.
3. Key legal constraints, issues, and significant contractual provisions of any contracts with lending agencies

The Contractor shall also review the potential for partial debt and/or equity participation from the Major Stakeholders in this project.



The Contractor shall visit the Grantee at the end of this task to present and to discuss its findings.

**Task IV Deliverable:** The Contractor shall prepare and present a report on the work performed under Task IV, including a discussion of the financial model, which includes options for financing the Pipeline System. The Task IV Deliverable shall be included in the Final Report.

**Task V: Technical Visit to the US**

Since the Grantee has never undertaken a similar project before, the Contractor is expected to demonstrate first-hand how similar projects have been executed in the U.S. To this end the Contractor shall organize a Technical Visit to the U.S. with the objective of providing direct contact between the Grantee and operators of similar facilities identified by the Contractor in consultation with the Grantee.

The Grantee shall select a technical team of five members from among the Major Stakeholders (the "delegates") to send to the United States to meet with U.S. oil companies that operate similar pipeline infrastructure. The Contractor shall organize the visit, including schedules and agendas, and shall participate in all meetings. The visit shall last five business days, and shall include visits to three facilities similar to the planned Pipeline System.

The Contractor shall arrange for and supply the delegates' lodging, fully refundable economy class international and domestic air fare, land transportation, meals associated with the visit for the delegates involved in the activity, and interpretation services (when needed). The Contractor shall manage the arrangements for visas for the delegates.

The Contractor shall accompany the delegation and assist in all reasonable requests to obtain any information (catalogues, brochures, annual reports, regulatory requirements, operations manuals, compliance reports, etc.) identified by the delegation. This may require follow-up mailings after the delegation has departed.

Regarding meals associated with the visit, these shall be provided by the Contractor. The Contractor shall arrange and pay for delegate meals, the cost of which shall be determined by using as a guide, the amounts designated for meals in the U.S. Government Meals and Incidental Expenses subsistence allowance schedule. If delegates elect not to partake of the meal provided, they are free to eat elsewhere at their own expense. No incidental expenses shall be provided.

The Contractor shall arrange meetings with actual owners and operators of similar pipelines including the major Components listed above of the Grantee's System:

1. Multi-product petroleum liquids pipelines
2. Petroleum Storage Depots
3. Delivery and receipt terminals for petroleum



4. Liquid Petroleum Pipelines and storage; and LPG retail dispensing depots

The objective of the visit is to demonstrate how companies have financed, selected, procured, commissioned and operated similar facilities in the U.S. The visit shall also address the entire process of feasibility study, Front End Engineering Design, procurement, installation, commissioning and start-up. It shall then address operational issues related both to the technical aspects of ownership of the facilities and the economics and business aspects.

The Contractor shall arrange discussions that, with respect to facilities visited, will cover at a minimum:

1. The owner/operator's strategy for front-end planning for the facility; including engineering, operations, and business
2. How the facility was financed
3. The procurement process, and the engineering, installation, and commissioning process of the facility when new
4. The elements of the operations plan for the facility visited
5. How the business is managed

**Task V Deliverable:** The Contractor shall prepare a report that shall describe the meetings, the U.S. technologies and facilities reviewed, and any reactions to the application of the respective technologies. The Task V Deliverable shall be included in the Final Report.

**Task VI: Preparation of Conditions of Performance**

The Grantee intends to proceed to a Procurement of the facilities related to the Pipeline System, either via an international public RFP, or a limited RFP issued to pre-selected qualified suppliers. One of the stated objectives of this FS is to assist the Grantee in preparing and publishing this RFP.

The Contractor shall visit the Grantee at the beginning of the Task for data collection and to discuss the Grantee's objectives.

This RFP for engineering services shall contain a set of Conditions of Performance ("Conditions") that encompass a number of project execution requirements that the supplier commits to in the execution of the contract for engineering supplies and services. The Contractor shall draft for the Grantee those sections of the RFP involving:

1. Mutual obligations related to commercial items, including performance and other bonds, payment schedules and deadlines, financial guarantees, and similar items
2. Mutual financial obligations, including payment and loan guarantees



3. Technical specifications, including specific engineering standards that the supply (infrastructure and product quality) must meet
4. Project Management standards, including: execution processes, facility inspecting and compliance reporting, liaison, system testing, environmental management systems and similar items
5. Planning standards, including specific plans to be delivered, as part of the proposal, for commissioning, start-up and commercial operations such as maintenance, billing and metering plans
6. Standard warranty provisions
7. Standard training provisions

The Contractor shall also draft additional sections of the RFP that relate to technical Conditions of Performance. The Contractor shall draft for the Grantee those sections of the RFP involving:

1. Distinct phases and milestones including project stop and go/no-go decisions
2. Phased payments that include retainers in case of failed performance
3. Change management and selection of engineering alternatives at project milestones

The Contractor shall use the results of the previous Tasks above to develop the necessary Conditions in a format suitable for use in an RFP, according to the standard RFP formats in use by the Grantee. These same Conditions will also be provided in a format suitable for inclusion in an engineering supply contract.

Furthermore, the Contractor shall assist the Grantee in the preparation for publication of the RFP by including these Conditions within the standard RFP format used by the Grantee.

The Contractor shall visit the Grantee at the end of this task to present and to discuss its findings.

**Task VI Deliverable:** The Contractor shall prepare a document that shall specify the technical and commercial Conditions of the specifications of the Procurement. Furthermore, the Contractor shall assist the Grantee by including these Conditions within the standard RFP format used by the Grantee. The Task VI Deliverable shall be included in the Final Report.

#### **Task VII: Preparation of Tender Documents**

The Contractor shall further support the Grantee in the preparation of the relevant RFP for the Procurement by drafting the sections of the RFP that relate to the analysis in the Tasks performed under these Terms of Reference. Based on the findings of Task I and Task II, the Contractor shall draft:

1. A technical description of the project



## 2. The preliminary Operations Plan

Furthermore, the Contractor shall assist the Grantee in the preparation for publication of the RFP by including these sections within the standard RFP format used by the Grantee.

The Contractor shall provide the draft in a format to be agreed upon with the Grantee that is suitable for inclusion in a contract for the Grantee's use in negotiations with any potential supplier.

**Task VII Deliverable:** The Contractor shall prepare technical sections for Requests for Proposals as specified in Task VII for the Grantee's use in soliciting proposals to address needs defined in previous Tasks, and also relevant technical contract content. Furthermore, the Contractor shall assist the Grantee by including these sections within the standard RFP format used by the Grantee. The Task VII Deliverable shall be included in the Final Report.

### Task VIII: Regulatory Review

The Contractor shall discuss any regulations that would impact the Project's viability or prognosis to move forward. The contractor shall review binding engineering standards, environmental and safety standards, regulations that impact operations, regulations that constrain commerce, regulations that constrain labor, constraints on obtaining and servicing commercial loans, taxes and other levies, and regulations that impact the ability to do business in the energy sector in Cameroon.

The Contractor shall identify and discuss both regulations that are part of the law of Cameroon, especially those laws pertaining to related areas such as power generation and oil products marketing and applicable international regulations. The Contractor shall provide a brief discussion of why they apply and how such laws might impact the Project's viability.

The Contractor shall examine the impact of any current and potential future regulation of the Pipeline System and the price of energy commodities on the viability of the Project. The Contractor shall also propose institutional arrangements for regulating the Pipeline System, including operation-access rules and pricing services as well as license conditions for a Pipeline System operator.

**Task VIII Deliverable:** The Contractor shall prepare a report of the work performed under Task VIII including an assessment of the impact of local and international regulations on the Project's anticipated technical, financial and commercial viability. The Task VIII Deliverable shall be included in the Final Report.

### Task IX: Preliminary Environmental and Social Impact Assessment



The Contractor shall perform a preliminary review of the Project's anticipated social and environmental impacts with reference to Host Country requirements and those of multilateral lending agencies (such as the World Bank). The Contractor shall identify potential negative impacts, discuss the extent to which they can be mitigated, and outline plans for a more detailed environmental and social impact assessments if and when the Project moves forward to the implementation stage. The Contractor shall consider the impacts that may occur, including but not limited to plant or animal endangerment, disruption of agricultural outputs, destruction of livelihoods, relocation of people, and the flooding of ancestral heritage areas. This includes the identification of steps that will need to be undertaken by the Grantee subsequent to the study's completion and prior to Project implementation.

**Task IX Deliverable:** The Contractor shall prepare a preliminary environmental impact assessment that reviews the Project's anticipated impact on the environment. The Task IX Deliverable shall be included in the Final Report.

**Task X: Developmental Impact Assessment**

The Contractor shall perform an analysis of host country development impacts in the areas of: Infrastructure, Human Capacity Building, Technology Transfer and Productivity Improvement and/or Market-Oriented Reform). These Development Impact factors are intended to provide the Project's decision-makers and interested parties with a broader view of the Project's potential effects on the Host Country.

The Contractor shall place specific focus on the immediate impact of the Project covered under the Study. The Contractor shall consider and describe any additional developmental benefits that may result from the Project's implementation, including spin-off and demonstration effects. The contractor shall assess each of the following categories with respect to the Project's overall development impact:

*Infrastructure:* improvements in the physical, financial, and social infrastructure of Cameroon.

*Technology Transfer and Productivity Improvements:* introduction of advanced technologies and improvement of processes that stimulate greater economic productivity.

*Human Capacity Building:* new job opportunities, sustained employment, or advanced training to upgrade the capability of the workforce.

*Market-Oriented Reforms:* transparency and private sector participation.

*Other/Spin-Off Effects:* any other developmental benefits derived from the Project including, for example, increased good governance or improved financial revenue flows to Cameroon.



**Task X Deliverable:** The Contractor shall prepare a developmental impact assessment, which reviews the Project's anticipated developmental impacts. The Task X Deliverable shall be included in the Final Report.

**Task XI: Potential U.S. Sources of Supply**

The Contractor shall create a comprehensive and searchable list of potential U.S. sources of supply with reference to the Requests for Proposals developed under Task VII. The Contractor shall include the business name, point of contact, address, telephone, e-mail, and fax numbers for each identified source.

**Task XI Deliverable:** The Contractor shall prepare a list of potential U.S. sources of supply, which may be used in the implementation of the Project. The Task XI Deliverable shall be included in the Final Report.

**Task XII: Implementation Plan**

The Contractor shall draft an implementation plan which describes the next steps to be taken upon completion of the Study and prior to the start-up of the proposed Pipeline System. The Contractor shall describe:

1. The need for a detailed environmental impact assessment and a cost estimate for such an assessment.
2. The need for a detailed geotechnical analysis including a geological and geophysical inspection of terrain, drilling for and securing oil samples, field and laboratory tests of surface soils and subsurface soil and rock samples, and an assessment of the geological and seismic stability of the affected area as well as a cost estimate for such an analysis.
3. The permits, public hearings and similar proceedings that may be required during the approval process.

**Task XII Deliverable:** The Contractor shall prepare an Implementation Plan which describes the next steps to be taken upon completion of the Study and prior to start-up of the proposed Pipeline System. The Task XII deliverable shall be included in the Final Report.

**Task XIII 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.



The Contractor shall provide to the Grantee five (5) hard copies of the Final Report and ten (10) electronic copies on read-write CD-ROM disks.

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.





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. 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 \_\_\_\_\_.

2. 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.
3. 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 2 above.
4. 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.
5. 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. USTDA retains the right to request an updated certificate of good standing from the selected Offeror.

Signed: \_\_\_\_\_  
(Authorized Representative)

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_