



## **Terms of Reference**

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### **GUYANA OIL AND GAS CAPACITY BUILDING PROJECT (P166730)**

#### **ADVISORY SERVICES FOR THE REVIEW AND EVALUATION OF FIELD DEVELOPMENT PLANS (FDP) IN GUYANA**

##### **1. BACKGROUND**

As the Cooperative Republic of Guyana (CRG) moves into a new chapter of history as an emerging petroleum producing nation, sustainable development lies at the core of the Government of the Cooperative Republic of Guyana's (GCRG's) goals for the sector. Being keenly aware that petroleum is a non-renewable resource, considerations related to its extraction and conversion into financial capital highlight the requirement and responsibility to ensure that the resource is prudently managed, from the time petroleum 'appears' at the wellhead, for the long lasting benefit of CRG. In developing the policies, legal framework, institutions and systems to oversee and manage the sector, the GCRG is committed to ensuring that this framework allows both present and future generations to reap the benefits.

The CRG's petroleum sector is progressing swiftly with first oil expected in 2020. This planned petroleum development, coupled with ongoing assessment of new discoveries, has led the GCRG to focus on ramping up preparations to oversee the upstream sector (exploration, development and production); to develop policy and legislation, to build up internal capacity building, to promote governance and transparency, and to undertake financial and economic planning.

The proposed Guyana Oil and Gas Capacity Building Project (the 'Project') is supported by the World Bank and aims to enhance the Government's capacity to achieve its management goals for the petroleum sector through interventions focused on enhancing legal and institutional frameworks and strengthening the capacity of key institutions to manage the oil and gas sector in CRG.

##### **2. OBJECTIVE**

The objective of the assignment is for the Consultant to provide advisory services and technical support to the GCRG, through the Department of Energy (DE), with the aim of enhancing the country's core capacity to review, approve and authorize Field Development Plan(s) (FDP) and in the process help level the playing field between the government and private sector investors.



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### 3. SCOPE OF WORK

Under the present Terms of Reference, the Consultant is invited to fulfill the scope of works described below:

1. Considering international good practices and the specific conditions present in CRG, conduct an in-depth review of field development plan (FDP), environmental impact assessment (EIA) and supporting documents (including related FDP's) submitted by the Contractor(s)<sup>1</sup>. This in-depth review must include **at a minimum** an assessment of:
  - a. The strategy and the development model, as well as the criteria for the choices that have been made by the Contractor (with a particular focus on cost effectiveness) and potential alternatives.
  - b. The engineering, geological and geophysical interpretations, simulations, and estimations (with a particular focus on recovery factor efficiency using natural gas injection and available natural gas for export)
  - c. The proposed project schedule (with a particular focus on tail end production).
  - d. The proposed subsea system.
  - e. The well & reservoir management strategy (considering the GCRG's objective of maximizing the recovery of hydrocarbon resources and of no-gas flaring)
  - f. The proposed oil and gas surface facilities.
  - g. The Health, Safety, Environment and Social (HSES) impacts and proposed mitigation.
  - h. The Abandonment Plan.
  - i. The overall risk management strategy.
  - j. An analysis of how the Contractor has incorporated the learnings from previous FDP, as well as identifying how the Contractor has addressed these findings in the context of a new FDP.
2. Prepare a report setting out the opinions formed in the evaluation of the FDP and EIA, highlighting any deficiencies, unresolved issues, and areas of additional technical analysis that government should request from the Contractor before making a determination on the FDP, as applicable.

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<sup>1</sup> The Contractor will be determined by the Client.



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3. Support the DE's productive working relationship with the Contractor including regular and consistent meetings and technical exchanges, including:
  - a. Assisting the DE in formulating responses and communications to the Contractor aimed at lodging objections, resolving differences in technical judgement, requesting modifications, etc.
  - b. Analyzing responses received from the Contractor and making recommendations on the adequacy of such responses. If revisions to the FDP are ultimately made, the Consultant will review the revisions to assure that the issues and deficiencies or requested modifications identified in the original FDP have been adequately addressed.
4. Provide on-the-job training to the DE during the FDP evaluation process.
5. Document the field development review process capturing international best practices in a manner and format useful for future reference.
6. Prepare FDP Guidelines that should at a minimum include: (i) essential principles of an FDP, (ii) engagement framework with the DE, and (iii) contents of a FDP.

### 4. DURATION OF ASSIGNMENT

**The duration of the assignment is expected to be four (4) months with an option to renew on expiration, commencing ..... 2019.** The consultants are requested to present their proposal with a timeline allocation for the assignment and any assumptions made regarding the level of effort indicated in this TOR.

Work is to be conducted in the offices of the Contractor in the CRG and in Houston, facilitated by an online data room. The team leader and other key consultants will be present in CRG as needed to effectively carry out the scope of work, including the discussion and presentation of the report(s) and to assist in interaction with the Contractor.

The contract will be a lump sum based and the selected Consultant will be required to complete the work for the amount of their proposal.

### 5. DELIVERABLES



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The DE will designate a Focal Point to work with the Consultant. The Focal Point will provide existing documentation regarding the Project and ensure meetings with the operators as needed, nevertheless, the Consultant will be responsible for obtaining all the necessary public information required to perform the tasks included in this TOR.

The core deliverables for this assignment are the provision of advice and assistance to the Client as required in executing the Scope of Work. The Consultants will be expected to prepare written answers to queries from the DE, provide weekly progress update reports in an agreed written format and submit well documented advice and recommendations on the FDP. Moreover, the Consultants should be available for audio or video conference when required.

The Consultant will also be required to prepare and deliver:

- In **week 3**: The plan and schedule for the FDP review as well as the plan for on-the-job training, inclusive of a wrap-up workshop, for the DE's representatives and other officers identified by the DE. The DE's approval is required for this plan.
- In **week 10**: FDP review and Draft Evaluation Report of its findings
- In **week 14**: Final FDP Report

The Consultant is expected to incorporate one to four professional staff of the DE and the Guyana Geology and Mines Commission in their team and provide requisite training and guidance throughout the review process. The GCRG will cover the costs associated with travel and accommodation for the staff participating in the training.

All deliverables in electronic and printed copies will be required in English and will be submitted to the Client for review and approval within the deadlines established. The World Bank may also review the deliverables for consistency with World Bank Safeguards. It is expected that certain deliverables may require several drafts to incorporate comments by the World Bank, the Client, and relevant stakeholders before they are determined to be final.

### **6. EXPECTED EXPERIENCE AND REQUIRED QUALIFICATIONS**

To be eligible for the assignment, the Consultant should be an internationally-recognized firm with experience within Guyana or the region of having provided similar evaluations and opinions. The Consultant will be required to demonstrate advisory experience and knowledge of oil and gas field development and in providing professional opinions (such



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as Competent Person's Reports) to Governments on oil and gas field development planning and execution.

The Consultant may propose the best team combination to achieve the overall goal. To be considered for the assignment, proposed team members should have in-depth international expertise, regional knowledge and expertise, and **the following minimum qualifications** (though consultants are invited to propose further skills as deemed appropriate for successfully meeting the needs of the assignment):

### 6.1. Team leader

The team leader should have wide experience of working with versatile teams and excellent planning, organizational and communication skills with the ability to guide multidisciplinary technical teams. The team leader proposed for the assignment should possess an advanced degree in petroleum engineering, geology, or similar discipline and have at least 15 years of experience in the oil and gas industry, which should include experience in reserve determination, field development planning, and facility design.

### 6.2. Geology/Geophysics/Geosciences

Should have experience in reservoir evaluation, mapping, 3D geo-modeling and volumetric assessments using both deterministic and probabilistic methods. Familiarity with EM Power and/or Eclipse is a requirement.

### 6.3. Reservoir Expert

Should have experience in reservoir management and technical, economic and risk analysis including reservoir modeling and production forecasting.

### 6.4. Drilling

Should have experience in offshore drilling projects with background in the engineering, operations and project management aspects of well construction.

### 6.5. Subsea/ Pipeline Operations

Should have in-depth knowledge of technological aspects of offshore Development facilities (Subsea development, including Subsea Production system, Subsea facilities and operations).



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To be considered for the assignment, proposed team members should submit their respective CV's, demonstrating their international, regional and local expertise. The team leader and key members of the Consultant's team shall not change throughout the duration of the contract with the GCRG. Any staff changes will require the DE's approval. The Consultant's recommendations must be consistent with the World Bank's safeguard policies.

It is expected that the work would be conducted both in the Contractor's and in the Client's office. The Consultant is expected to propose a cost effective proposal for carrying out the work between multiple locations.

### **7. CONFLICT OF INTEREST**

The Consultant is required to disclose any potential conflicts of interest arising out of other assignments. Where the Consultant currently represents any party or potential stakeholders that would create conflict of interest or to the extent any conflict of interest would arise in the future, the Consultant shall detail any measures that may be required to avoid conflicts of interest in connection with the implementation of this assignment.

### **8. CONFIDENTIALITY**

The Consultant shall be required to keep confidential all information received, gathered or communicated, directly or indirectly, from relevant authorities, agencies, ministries, the World Bank or other stakeholders as well as all copies or analyses that the Consultant has made, or that have been made by third parties, on the basis of such information (collectively, the Material). The Consultant shall use the Material exclusively for the purpose of providing the services described in these Terms of Reference. The confidentiality obligations shall not apply to information in the public domain.

All reports and work products from the consultant will be delivered to only specifically designated representatives within the DE and GGMC.