AMENDMENT #1: 2026-11005A Nigeria Liquefied Natural Gas for Commercial and Industrial Energy Security Feasibility Study

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Please note that the Request for Proposals (RFP) for the Feasibility Study for the Liquefied Natural Gas for Commercial and Industrial Energy Security is amended, as follows:

Questions, Answers and Clarifications: This amendment consists of clarifying questions and answers submitted by potential Offerors regarding the RFP packet. Responses to submitted questions are attached.

Section 2.13: Proposal Submission Requirements

The new submission deadline for bids has been extended to **August 14, 2026**.

1. Site coverage: Must the complete Task 3 field investigations and Task 4 preliminary design be performed for both the Ebedei and Ogbele sites, or may the Contractor assess both sites initially and then focus detailed work on the selected site with Client and USTDA approval?

   Initial screening will be conducted for both the Ebedei and Ogbele sites to determine the preferred location before proceeding with detailed Task 3 investigations and Task 4 preliminary designs.

2. Future expansion: Should the base design and plot plan explicitly accommodate expansion from 200 mt/d to 400 mt/d, including common utilities, storage, loading, land and feed-gas infrastructure?

   The terms of reference requires the Contractor to provide the Client with the analysis and engineering plans needed to implement a 200 mt/day plant. A 400 mt/day plant may be assessed as a higher-level expansion case, though it is not required within the terms of reference.

3. Field investigations: Please confirm whether the Offeror may propose feasibility-stage quantities and depths for boreholes, trial pits, SPTs, laboratory tests, topographic surveys and flood modelling based on professional judgment.

   Yes.

4. Engineering maturity: Please confirm that Task 4 is intended to be performed at feasibility/pre-FEED maturity rather than full FEED, detailed engineering or IFC-design maturity.

   Correct. The Contractor is directed to develop preliminary designs for the project.

5. Environmental scope: Please confirm that Task 7 requires a preliminary ESIA and a scope and roadmap for the final statutory ESIA, but does not require completion and governmental approval of the final ESIA or issuance of Project permits during the Study.

   Task 7 requires a preliminary ESIA, an in-depth infrastructure resilience analysis, and a regulatory review. Completion of the task includes preparing the documentation and developing a work plan for the Client to obtain government approval but does not require obtaining final government approval to consider the task effort complete.

6. Off-taker engagement: Does Task 2 require customer interviews and documentation of interest, or must the Contractor obtain formal letters of intent, memoranda of understanding or binding off-take commitments?

   The Contractor shall identify potential offtakers and shall meet with the most promising customers to define their specific needs and document details like projected customer demand, schedule, and contact details. The task does not require obtaining formal agreements.

7. Nationality and local participation: Are Cameroon and Benin considered Target Countries under the Grant Agreement? Please also clarify how the 30% Host Country/Target Country limitation will be calculated.

   No, Cameroon and Benin are not Target Countries under the Grant Agreement. Nigeria is the Target Country. 30% of USTDA's grant amount may fund local (Nigerian) labor.

   USTDA's Nationality, Source, and Origin Requirements are linked here: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://s3-us-gov-west-1.amazonaws.com/cg-654ebf73-8576-4082-ba73-dd1f1a7fe8dc/uploads/USTDA_Nationality_Requirements_November_2023.pdf

8. Initial Data Package: Please confirm whether Powergas expects to provide gas analyses, supply agreements, land records, existing drawings, utility data, permits, environmental records, customer information and available road or logistics studies for both sites.

Powergas will provide an Initial Data Package to the successful bidder upon contract execution and execution of a mutual Non-Disclosure Agreement (NDA). To clarify the specific items requested:

- **Powergas Will Provide (Existing Data): Available gas analyses from proposed feed sources, raw customer demand data/off-taker leads, preliminary land records/site identification data, and any available internal road or logistics profiles for the two candidate locations.**
- **To Be Developed Jointly / Contractor Scope: Existing structural/engineering drawings and utility data are limited; the selected U.S. firm will be expected to analyze and define these requirements during the technical phase of the study.**
- **Study Deliverables / Future Phases: Definitive gas supply agreements, final environmental records/EIAs, and statutory project permits are intended outputs or subsequent milestones of this Feasibility Study and project development lifecycle. Powergas will provide all necessary corporate positioning, letters of intent (LOIs), and local facilitation to support these efforts.**

9. Field mobilization: May the Task 1 kickoff visit be combined with initial Task 3, Task 7 and Task 8 field activities where doing so improves efficiency without reducing the required scope?

   Yes.

10. May the offeror cite relevant projects completed by proposed key personnel while employed by other companies? If so, how should this experience be distinguished from the offeror's corporate experience?

    The offeror shall include a listing of personnel to be engaged in the project with information including their pertinent experience from both current and previous roles.

11. How should relevant experience performed by affiliated companies within the same corporate group be presented and evaluated where the U.S. offeror is a wholly owned subsidiary of a non-U.S. parent?

    The offeror's own technical capability and past performance should be clearly demonstrated.

12. May the offeror engage NETCO or another NNPC-affiliated entity as a Nigerian subcontractor, and would such an arrangement create any eligibility or conflict-of-interest concerns?

Nigerian entities may be engaged as a subcontractor subject to USTDA's Nationality, Source, and Origin Requirements.

13. Is the feasibility study expected to assess both the Ebedei and Ogbele sites through the full topographical, geotechnical, hydrological, flood-risk, and environmental investigation scope, or may the contractor initially screen both sites and perform intrusive investigations only at the preferred site?

    The Contractor is expected to initially screen and perform comparative desktop assessments on both the Ebedei and Ogbele sites. Full topographical, geotechnical, hydrological, flood-risk, and environmental investigations requiring intrusive fieldwork will be performed only at the preferred site.

14. Is development of both sites considered a realistic outcome, or is the study principally expected to recommend one preferred site for development?

    The study will recommend one preferred site for development.

15. Will Powergas facilitate site access, security escorts, community coordination, and any local permissions required to perform site visits and intrusive investigations?

    Yes. Powergas will facilitate all required access, though the Contractor will be required to cover costs for security, transportation, lodging, etc. using the grant funds.

16. Are there any known land-ownership, easement, community-relations, resettlement, or other site-access issues associated with either candidate site?

    No encumbrances.

17. What existing information will be made available for each site, including site drawings, topographical or geotechnical studies, hydrology and flood assessments, environmental permits, gas-supply agreements, gas analyses, reserve and deliverability information, and historical CNG operating and sales data?

    Powergas will make available an Initial Data Package containing existing relevant information consisting of:
    - **Available gas analyses from the proposed feed sources, basic site identification data, and available high-level gas availability or reserve information provided by the upstream asset owners.**
    - **Relevant target market demand data, off-taker leads, and aggregated, non-proprietary historical CNG market performance data will be shared to support the commercial modeling.**

- **Detailed site drawings, topographical surveys, geotechnical studies, hydrology reports, and flood assessments are limited or may not exist for the candidate locations. In alignment with Response 1 and Response 13, the Contractor is expected to generate these detailed technical datasets for the selected preferred site as part of the study's scope.**
- **Definitive gas-supply agreements and statutory environmental or regulatory permits are intended outcomes or subsequent milestones of this Feasibility Study and project development lifecycle. We will provide all necessary corporate facilitation, LOIs, and local institutional support to advance these items during the project.**

18. What level of access and cooperation can the contractor expect from Aradel and EGPCL regarding gas reserves, deliverability, gas quality, existing facilities, and other technical information?

    The Contractor can expect a high level of technical cooperation and data access from both Aradel Holdings Plc (for the Ogbele site) and EGPCL (for the Ebedei site). Powergas maintains a well-established commercial relationships and existing operational footprints with both upstream partners.

19. Will Powergas facilitate introductions to its existing CNG customers, EGPCL, Aradel, NMDPRA, relevant state authorities, and other stakeholders required to complete the study?

    Yes.

20. Should the 400 mt/day expansion and potential eight-train configuration be evaluated to the same level of technical and commercial detail as the initial 200 mt/day development, or should it be addressed as a higher-level expansion case?

    The terms of reference requires the Contractor to provide the Client with the analysis and engineering plans needed to implement a 200 mt/day plant. A 400 mt/day plant may be assessed as a higher-level expansion case, though it is not required within the terms of reference.

21. Task 7.2 refers to the SSLNG plant being located in Northern Nigeria, although the two candidate production sites are in Delta and Rivers States. Should the climate-resilience assessment address the southern production facilities, the northern customer and regasification sites, or both?

The assessment should focus on the SSLNG plant in Southern Nigeria as well as the related operations to be conducted in Northern Nigeria including the gas transportation routes and regasification sites, as applicable.

22. Does Powergas have a preferred project-delivery strategy such as EPC, EPCM, modular package supply, or phased development that should be used as the study's base case?

    Powergas' preferred base case for the project-delivery strategy is a phased development utilizing modular package supply, executed via an EPC framework.

23. Are any preferred or previously engaged U.S. technology providers already identified by Powergas or USTDA?

    No preferred U.S. technology providers have been identified. The evaluation, comparison, and selection of appropriate U.S. equipment manufacturers and technology suppliers represent a core deliverable of this Feasibility Study.
    The selected Contractor will be expected to conduct an independent, objective analysis of qualified U.S. small-scale LNG technology providers based on technical fit, cost efficiency, modular capabilities, and operational suitability for the Nigerian environment.

24. Should customer-site regasification concepts be developed for specifically identified off-takers or for representative customer classes? Should the study evaluate Powergas ownership, leasing, customer ownership, or multiple commercial structures for those facilities?

    The Contractor shall recommend regasification system design at Customer sites and define a strategy for the pricing of LNG, including regasification terminal ownership and leasing options.

25. What level of market engagement is expected: documented customer interviews and demand estimates only, or also non-binding expressions of interest, memoranda of understanding, or draft commercial term sheets? Additionally, are there prescribed foreign-exchange and inflation assumptions that should be used in the financial model?

    The Contractor shall identify potential offtakers and shall meet with the most promising customers to define their specific needs and document details like projected customer demand, schedule, and contact details. The task does not require obtaining formal agreements.

    There are no prescribed foreign-exchange or inflation assumptions that must be used in the financial model, though the model developed should consider relevant fiscal conditions that may impact project financeability.

26. Will site selection be finalized during Task 3 prior to commencing Task 4, or should the contractor budget to prepare separate Preliminary Design Packages, Plot Plans, and Balance of Plant (BOP) layouts for both sites?

    The Contractor will prepare design packages, plot plans, and BOP layouts for only one site to be selected in consultation with the Client and approved by USTDA.

27. Will comprehensive gas chromatography (including contaminant profiles for CO_2, H_2S, moisture, and heavy hydrocarbons) and upstream pressure/temperature data be provided in the initial data package during Task 1, or is the contractor expected to perform on-site sampling and lab testing?

    Powergas will provide available historical gas chromatography reports and upstream pressure/temperature data in the Initial Data Package during Task 1 for both candidate sites. However, to ensure project bankability and precise cryogenic engineering design, the Contractor is expected to include independent validation within their technical methodology. This includes performing fresh on-site sampling and comprehensive laboratory testing (covering contaminant profiles for CO_2, H_2S, moisture, trace metals, and heavy hydrocarbons) exclusively for the selected preferred site during the detailed Task 3 field investigation phase.

28. What is the exact battery limit for the feed gas pipeline preliminary design? Does it extend only to the tie-in point at the adjacent existing facility, or is an off-site supply pipeline required?

    The battery limit for the feed gas pipeline preliminary design extends strictly to the custody transfer tie-in point (flange connection and metering skid) at the adjacent existing gas processing facility for the selected preferred site.

    A cross-country or major off-site supply pipeline is not within the scope of this Feasibility Study. The preliminary engineering design under Task 4 should focus exclusively on the short-distance interconnecting piping, pressure regulation, and initial conditioning equipment required to route the gas from the host facility's fence line directly into the new small-scale LNG plant.

29. How many standardized customer regasification plant design options or skid capacities are expected (e.g., small industrial heat, medium power generation, large off-taker), and should these be developed as modular reference templates or customized for specific off-takers identified in Task 2?

    The Contractor is expected to develop three (3) standardized modular reference templates for the customer regasification skids, rather than fully customized designs for individual off-takers.

These templates should be scalable and optimized for the typical energy demand profiles identified in Nigeria's C&I sector, structured as follows:

a. **Small Capacity Skid: Tailored for small-to-medium industrial manufacturing heat and steam applications.**
b. **Medium Capacity Skid: Tailored for captive industrial power generation (e.g., factories running gas generator sets between 1 MW and 5 MW).**
c. **Large Capacity Skid: Tailored for large anchor off-takers, decentralized multi-megawatt power hubs, or regional secondary distribution clusters.**

The Task 2 market assessment will identify specific high-priority off-takers and map them against these three standard reference capacities. The technical designs under Task 4 should focus on making these regasification skids modular, automated, plug-and-play units that can be easily transported and deployed at various customer locations across Nigeria.

30. Does the transportation engineering scope require detailed specifications and sizing for cryogenic ISO containers, road tankers, and truck loading/unloading bays, or is it limited to high-level fleet logistics and operational sizing?

The transportation engineering scope requires detailed specifications and operational sizing for the logistical assets and terminal infrastructure, rather than a high-level fleet overview.

To ensure the feasibility study delivers an investment-ready implementation blueprint, the Task 4 preliminary design must include:

- **On-Site Infrastructure: Full layout, process flow diagrams, sizing, and safety clearances for the plant's truck loading bays, including transfer pumps, boil-off gas (BOG) handling integration, and metering systems.**
- **Mobile Distribution Assets: Detailed technical specifications, capacity sizing, and standard operating parameters for both cryogenic LNG road tankers and intermodal ISO tank containers suitable for Nigerian road network conditions.**
- **Logistical Sizing: Detailed fleet logistics modeling to determine the exact number of transport units required to reliably service the anchor off-taker demand segments identified during the Task 2 market assessment.**

31. Please confirm that P&IDs are expected at a conceptual level (focusing on key process controls and ESD loops) and that the BoQ can be derived from standard equipment-factored bulk material estimates rather than detailed material takeoffs.

The terms of reference indicates that P&IDs should be developed at the conceptual level. The bill of quantities can be derived from equipment-factored bulk material estimates.

32. Should plot plans, utility balances (power, water, cooling), and civil/BOP infrastructure in Task 4 be pre-designed to accommodate future expansion to 400 mt/d, or should they be strictly optimized for the initial 200 mt/d configuration?

    The terms of reference requires the Contractor to provide the Client with the analysis and engineering plans needed to implement a 200 mt/day plant. A 400 mt/day plant may be assessed as a higher-level expansion case, though it is not required within the terms of reference.

33. Please clarify the current permitting status in relation to the 2 sites under consideration.

    Powergas clarifies that formal statutory project permits (such as NMDPRA establishment/construction licenses and approved Environmental Impact Assessments) have not yet been secured for either site. Obtaining these permits is an intended downstream outcome of the project development lifecycle, utilizing the technical designs generated by this study.

    The Contractor is not required to secure or process any regulatory permits during this study. Instead, under the relevant regulatory compliance tasks, the Contractor will outline the definitive permitting roadmap, identify all statutory compliance requirements (NMDPRA, Federal Ministry of Environment, etc.), and compile the technical data packages necessary for Powergas to submit for these licenses in the next phase.

34. Clarify the purpose of the preliminary ESIA (is it to obtain the required environmental permit, for risk screening, access to international finance, other?)

    The preliminary ESIA will be used to initiate the required permitting for the project, risk screening, and to advance engagements with international financiers. The preliminary ESIA work will be used to develop the scope of the final ESIA for the Project.

35. Is a fully fledged ESIA to international lender standards anticipated to be conducted in a future phase of the project?

    The Contractor shall develop the scope of the final ESIA for the Project which will be conducted in a future phase of the project.

36. Are there specific NMDPRA guidelines, flaring/venting limits, or local content design mandates that must be incorporated beyond standard international engineering codes (ASME, NFPA, API)?

Yes. While standard international engineering codes (such as ASME, NFPA 59A, and API) form the technical baseline for the plant design, the Contractor must strictly incorporate specific Nigerian statutory regulations and design mandates, including:

a. **NMDPRA Regulations: The preliminary design must comply with all relevant NMDPRA guidelines governing midstream gas operations, gas processing, and small-scale LNG liquefaction, storage, and transportation terminal design.**
b. **Zero-Flaring and Venting Mandates: In strict alignment with Nigeria's Petroleum Industry Act (PIA) and NMDPRA Gas Flaring, Venting, and Methane Emission Prevention Regulations, the plant design must prioritize zero-routine flaring and venting. The technical configuration must incorporate robust Boil-Off Gas (BOG) recovery systems, vapor handling units, or re-liquefaction loops to eliminate emissions during normal operations, holding, and truck-loading phases.**
c. **Nigerian Local Content (NCDMB): The project must comply with the Nigerian Oil and Gas Industry Content Development (NOGICD) Act. The Contractor must design the execution framework to maximize local engineering hours, utilize local yard capacities for simple structural fabrications, and engage qualified local subcontractors**
d. **Environmental Standards: The design considerations must align with the Environmental Guidelines and Standards for the Petroleum Industry in Nigeria (EGASPIN).**

37. Please clarify any current transportation (trucking/rail) regulations currently in place.

Powergas clarifies that rail transportation is not a viable option for this project; the transportation engineering scope must focus exclusively on road logistics.