

REQUEST FOR PROPOSALS

FEASIBILITY STUDY FOR THE

FLOWER GATE GAS-FIRED POWER PLANT

Submission Deadline: **5:00 PM**
LOCAL (LAGOS) TIME
October 16, 2014

Submission Place: Mr. Akitoye Ogboye
Team Lead, Power Department
Honeywell Group Limited
6B Mekuwen Road
Off Oyinkan Abayomi Drive
Ikoyi, Lagos
Nigeria

Phone: +234-1-290-0525
Email: akitoye.ogboye@honeywellgroup.com

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\$455,000 to Honeywell Group Limited (“Grantee”) in accordance with a grant agreement dated May 22, 2014 (“Grant Agreement”) to fund the cost of services required for a feasibility study (“Feasibility Study”) on the proposed Flower Gate gas-fired power plant project (“Project”) in Nigeria (“Host Country”).

The Grant Agreement is attached at Annex 4 for reference. The Grantee is soliciting technical proposals from qualified U.S. firms to provide expert consulting services to perform the Feasibility Study.

1.1 BACKGROUND SUMMARY

The Grantee intends to build and operate a 100 MW gas-fired power plant and mini grid at its Flower Gate site to provide power to its own food processing facilities and cold storage unit. In addition to satisfying the power needs for these facilities, the Grantee is considering providing electricity (and potentially heat and hot water) to other offtakers within and outside of Flower Gate including the Ibadan Distribution Company, Ogun State Government facilities in Abeokuta, and other facilities in the industrial area surrounding Flower Gate.

The Feasibility Study will determine a conceptual plant size and configuration that meet the Grantee’s needs, as well as design a plant layout and process drawings. In addition to this plant configuration, the Feasibility Study will include an assessment of the availability of natural gas as a feedstock for the plant, as well as a market review and survey to identify potential offtakers within and outside of Flower Gate and assess their electricity requirements.

The Grantee is a Nigerian private sector firm which operates in key sectors of the Nigerian economy, including foods and agro-allied industries, energy, infrastructure, real estate, and services. It is a large company with over ten thousand employees and offices in both Nigeria and the United Kingdom. Portions of a background Definitional Mission are provided for reference in Annex 2.

1.2 OBJECTIVE

The objective of this Feasibility Study is to evaluate and develop plans in support of the Grantee for the proposed Flower Gate gas-fired power plant project in Nigeria. The Feasibility Study shall determine a conceptual plant size and configuration that can meet the demands of the Grantee’s food processing plant(s) and cold storage unit(s) at the Flower Gate Industrial Estate in Ogun State, Nigeria (“Flower Gate”). The Feasibility Study shall also include recommendations regarding the implementation of the proposed mini-grid. The Contractor shall account for the proposed options for the Project including, but not necessarily limited to, the following:

- Captive power supply to the Grantee-owned facilities

- Captive power supply to facilities located on the Grantee-owned land at Flower Gate using a private distribution network
- Captive power supply to facilities, outside of the Grantee-owned facilities, within Flower Gate using a private distribution network
- The evacuation of power to the Ibadan Electricity Distribution Company

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\$455,000. **The USTDA grant of US\$455,000 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\$455,000 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 the Flower Gate Gas-Fired Power Plant Feasibility Study.

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. Portions of the report are 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\$455,000.

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. Akitoye Ogboye
Team Lead, Power Department
Honeywell Group Limited
6B Mekuwen Road
Off Oyinkan Abayomi Drive
Ikoyi, Lagos
Nigeria

Phone: +234-1-290-0525
Email: akitoye.ogboye@honeywellgroup.com

An Original and one (1) copy of your proposal must be received at the above address no later than 5:00pm, local (Lagos) time, on October 16, 2014. In addition, an electronic copy should be sent to akitoye.ogboye@honeywellgroup.com no later than the deadline above.

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 the name of the project and designation of "original" or "copy number x." The original and one (1) copy should be collectively wrapped and sealed, and clearly labeled, including the contact name and the name of the project.

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

2.15 OFFEROR'S AUTHORIZED NEGOTIATOR

The Offeror must provide the 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.

2.16 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.

2.17 EFFECTIVE PERIOD OF PROPOSAL

The proposal shall be binding upon the Offeror for NINETY (90) 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.

2.18 EXCEPTIONS

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

2.19 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.

2.20 RIGHT TO REJECT PROPOSALS

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

2.21 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.

2.22 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.

2.23 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.

2.24 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\$455,000, which is a fixed amount.

Offerors shall submit one (1) original and one (1) copy of the proposal. In addition, an electronic copy should be sent to akitoye.ogboye@honeywellgroup.com. Proposals received by fax cannot be accepted.

Each proposal must include the following:

- Transmittal Letter,
- Cover/Title Page,
- Table of Contents,
- Executive Summary,
- Firm Background Information,
- Completed U.S. Firm Information Form,
- 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 U.S. FIRM INFORMATION

A U.S. Firm Information Form in .pdf fillable format is attached at the end of this RFP in Annex 6. The Offeror must complete the U.S. Firm Information Form and include the completed U.S. Firm Information Form with its proposal.

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 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:

- **Technical Proposal (30)**
 - Overall technical approach for performing the FS (15)
 - Technical approach for developing recommendations for the power project development and Investment /business Plan over 10 years (10)
 - Technical approach for the Financial Analysis for the Project (5)
- **Personnel and Management Plan (30)**
 - Experience and expertise of the Project Manager in designing and/or deploying power generation projects in a complex international environment (15)
 - Experience and expertise of the Team personnel in fulfilling the various functions of each component of the FS (15)
- **Firm/Team Technical Capability and Past Performance (30)**
 - Firm's/Team's experience and years of performance in power generation business

- planning and/or deployment (10)
- Firm's/Team's experience working with IPPs and/or utilities and providing technical assistance to them for planning Smart Grid projects (10)
- Firm's/Team's experience working on similar projects in Sub-Saharan Africa/similar developing region(s) (10)
- **Developing Implementation and Business Plans (10)**
 - Capabilities, experience in developing project implementation and business plans for developing and implementing expansion plans including identifying funding sources and developing financing plans.

The team should have experience in evaluation, planning, designing, and deploying power projects including environmental review and assessment, and civil and environmental work. Depending on the initial evaluation of the requirements, there may be a need to utilize specialists in particular areas including environmental review and assessment and natural gas supply.

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. Akitoye Ogboye
Team Lead, Power Department
Honeywell Group Limited
6B Mekuwen Road
Off Oyinkan Abayomi Drive
Ikoyi, Lagos
Nigeria

Phone: +234-1-290-0525
Email: akitoye.ogboye@honeywellgroup.com

*Proposals shall be clearly marked "Flower Gate Gas-Fired Power Plant"

U.S. Trade and Development Agency ("USTDA") Activity Number 2014-11018A: Flower Gate Gas-Fired Power Plant

POC: Jennifer Van Renterghem, USTDA, 1000 Wilson Boulevard, Suite 1600, Arlington, VA 22209-3901, Tel: (703) 875-4357, Fax: (703) 875-4009, Email: RFPQuestions@ustda.gov. Flower Gate Gas-Fired Power Plant. 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 to assess the technical, financial, and feedstock requirements for a proposed 100 MW natural gas-fired captive power plant that is being developed by the Grantee for its food processing, cold storage, and agro-allied industries at the Flower Gate industrial complex in Ogun State, Nigeria.

Honeywell Group Limited ("Grantee") intends to build and operate a gas-fired power plant and mini grid at the 1,725-acre Flower Gate Industrial Estate in Ogun State, Nigeria ("Flower Gate"), where the Grantee has acquired approximately 150 acres of land. The Project would supply electricity to a minimum of six food manufacturing and processing plants and a cold storage unit that the Grantee intends to develop within Flower Gate.

The Grantee is a Nigerian private sector firm which operates in key sectors of the Nigerian economy, including foods and agro-allied industries, energy, infrastructure, real estate, and services

The U.S. firm selected will be paid in U.S. dollars from a \$455,000 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 portions of a background definitional mission 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/businessopps/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

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 5:00pm local (Lagos) time, October 16, 2014 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.

A N N E X 2

(Edited portions of background DM report)

PUBLIC VERSION

**NIGERIA ENERGY SECTOR
DEFINITIONAL MISSION
Project Recommendation For**

**Honeywell Group's Flower Gate Power Generation
Project Feasibility Study**

April 21, 2014

Prepared by:

Emerging Markets Infrastructure LLC
Herndon, VA 20170
Tel: (703) 870-7164
shuster@emergingmarketsinfrastructure.com

3E Consulting, LLC
Columbia, Maryland
Tel: 410-908-4987
jrezaiyan@verizon.net

Submitted to:

Lisa Bonnikson
Country Manager / Contracting Officer's Representative (COR)
1000 Wilson Blvd.
Arlington, VA 22209



This report was funded by the US Trade and Development Agency (USTDA), an agency of the US 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.



The US Trade and Development Agency

The U.S. Trade and Development Agency helps companies create U.S. jobs through the export of U.S. goods and services for priority development projects in emerging economies. USTDA links U.S. businesses to export opportunities by funding project planning activities, pilot projects, and reverse trade missions while creating sustainable infrastructure and economic growth in partner countries.

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Honeywell Group's Flower Gate Power Generation Project

A. Executive Summary

Honeywell Group (the Grantee) proposes to build and operate a gas-fired power plant at its Flower Gate site (the Project) to provide power to its own food processing facility. The Grantee is considering expanding the power plant to provide electric power and/or other services (i.e. heat, hot water) to other facilities located on the Grantee's owned land within the Flower Gate Industrial Estate. They are also considering providing electric power to other facilities and offtakers within and outside of the Flower Gate Industrial Estate, including, but not limited to, the Ibadan Distribution Company, Ogun State Government facilities in Abeokuta and other facilities in the industrial area surrounding the Grantee's Flower Gate site. The Grantee has requested U.S. Trade and Development Agency (USTDA) to provide funding for a feasibility study (the Study) to be carried out by a U.S. firm (the Contractor) to be selected competitively. The overall objective of the Study is to assess the technical, economic, and commercial viability of the project as well as the project scale.

The Grantee, Honeywell Group, is one of the largest conglomerates in Nigeria. It is a diversified group with business interests in key sectors of the economy, including foods and agro-business, energy (oil, gas and power), infrastructure, real estate and services. The Grantee's food business group has acquired 62.8 hectares of land at an area called Flower Gate Industrial Estate near the Shagamu Interchange and has firm plans for building seven new production process plants on a portion of the land. The remaining land owned by the Grantee will then be made available for future Honeywell and third party business expansion. The Industrial Estate has the potential to become a major industrial location by virtue of its proximity to both the Lagos-Ibadan Expressway and the A121 Benin-West Nigeria trunk road.

Due to the lack of availability and reliability of electric power through national grid, industrial facilities in Nigeria generally self-generate – building a dedicated power generation plant on site. An industrial facility may additionally be connected to the central power system through the local electricity distribution company (DISCO). The rationale for self-generation is a combination of low availability of grid power and intermittency of grid supplies. Power is typically supplied from the grid for only around 30% of the time in Nigeria. The problem of intermittency is particularly acute for operators of process plants, where the changeover period between grid and internal power supplies can cause significant impact on product quality, and consequently production losses. This causes some plant owners to forego grid connections and rely entirely on their own generation.

The Project would initially supply the Grantee's own food processing demand (4MW for the first plant on site, rising to 50MW when the subsequent food processing

facilities are built in the following 6-8 years). It would be positioned to supply other factories located on the Honeywell-owned land, and possibly additional third-party facilities nearby. It is estimated that third party facilities could require 10MW in 5 years and 40MW in 10 years' time. The Project could also potentially provide reliable 24-7 power supplies to customers within the land corridor to Abeokuta, the capital of Ogun State, via a private distribution network. [REDACTED] An additional possibility exists for the Project to supply power to the local DISCO as an "embedded" generator. The size of the potential demand for this type of customer is as yet unknown. However, even without this source of potential demand, the Project could generate up to 100MW within 10 years.

The Project presents a number of potential advantages for the existing and new facilities at the Flower Gate Industrial Estate, including:

- Reductions in capital costs when building new facilities, due to elimination of need for self-generation facility;
- A reduction in space requirements;
- Reductions in operational complexity and ongoing need for management attention to power generation related issues.

In addition, it is expected that supply reliability would be greater from the Project than when a facility utilizes self-generation due to redundancies that can be built in to a larger centralized plant relative to a small self-generation plant. Furthermore, potential customers in an extended corridor to Abeokuta would benefit from 24-7 power supply. The availability of this service could be expected to attract new businesses to the area.

The Grantee also is experience in power sector and building and operating power plants. It has developed, built, and operating a 12MW gas-fired installation in its existing flour mills at Apapa in Lagos for providing power to its own facilities (self generation). It has also established a separate project company(Hudson Power) to pursue the development of a gas-fired IPP in Ogun State, just north of Lagos. The first stage is a 150MW with is being developed jointly with GE.

The Grantee plans to finance the first phase of the Project (5-6 MW) using balance sheet financing with possibly some local bank loans. The exact mechanisms of financing future expansion will depend on the rationale and/or nature for/of capacity additions. Future capacity expansion could be financed from the Project's retained earnings, new equity and further debt. The Grantee plans to finance small (less than 5 MW) capacity additions on the Project Company's balance sheet and the larger capacity additions by utilizing ring-fenced, non-recourse financing. The Project holds the potential to generate significant U.S. exports of goods and services;\$18 - \$25 million over 10 years.

The U.S. suppliers are well positioned to supply equipment and services for the Project. We have spoken with several potential U.S. suppliers of goods and services,

including GE, Cummings, Fairbanks Morse and they are interested in the Nigerian power market. The Grantee also has a history of working with the U.S. firms including with GE, Worley Parsons, and Tetra Tech.

The Project has strong potential developmental impacts, overall positive environmental impacts, and fits well with the Government of Nigeria's plans to modernize and privatize electric power sector. The DM team recommends USTDA funding for the Flower Gate power generation Feasibility Study in the amount of \$450,299.

B. Project Description

B.1 Overview

Honeywell Group (the Grantee) proposes to build and operate a gas-fired power plant at its Flower Gate site (the Project) to provide power to its own food processing facility. The Grantee is considering expanding the power plant to provide electric power and/or other services (i.e. heat, hot water) to other facilities located on the Grantee's owned land within the Flower Gate Industrial Estate. They are also considering providing electric power to other facilities and offtakers within and outside of the Flower Gate Industrial Estate, including, but not limited to, the Ibadan Distribution Company, Ogun State Government facilities in Abeokuta and other facilities in the industrial area surrounding the Grantee's Flower Gate site. The Grantee has requested U.S. Trade and Development Agency (USTDA) to provide funding for a feasibility study (the Study) to be carried out by a U.S. firm (the Contractor) to be selected competitively.

Objective

The objective of the Study is to:

- Establish the likely rate and the timing of customer enrolment by customer class (i.e., the Grantee owned facilities, other facilities located on the Grantee owned land, nearby facilities);
- Assess the Nigerian Gas Company's (NGC's) likely progress with gas supply to the site and schedule – NGC is planning to build a spur to the site;
- Assess the availability of back-up fuel supply such as compressed natural gas (CNG);
- Review and project future gas price trends;
- Identify the licensing and regulatory regime that is applicable to the proposed Project;
- Evaluate the possibility of providing other services such as heat and hot water;
- Develop pricing and marketing strategies for selling electric power to Flower Gate site lessees;
- Develop a 10 year business plan for the project;

- Develop an implementation plan, including phasing options, a timeline, environmental and social impact assessment (ESIA), and licensing;
- Identify technology choices and assess economic and commercial viability of the Project taking into account a number of options including:
 - Captive power supply to the Grantee-owned facilities
 - Captive power supply to facilities located on the Grantee-owned Flower Gate Site using a private distribution network
 - Captive power supply to other facilities within the Flower Gate Industrial Estate using a private distribution network
 - Exporting power to the Ibadan Distribution Company or to other offtakers outside of the Flower Gate area (e.g. Ogun State Government facilities in Abeokuta)

B.2 Sector Background

Nigeria is a country with both vast resources and wide spread poverty. Despite possessing the world's seventh-largest natural gas reserves, it has never generated enough power for either the domestic or commercial needs of its rapidly growing population. Only 50% of the population has access to electricity, and that is highly unreliable with an average availability of less than 50%. The Nigerian power sector continues to face all of the common problems associated with electricity sectors in developing countries. These include: (i) old and dilapidated power plants and transmission and distribution networks, (ii) poor system maintenance and virtual absence of preventive maintenance, (iii) poor financial performance of the enterprises and a lack of investment funds, (iv) poor institutional capacity and outdated skills of utility engineers and technicians, (v) unreliable power supply and service with frequent and long power cuts and interruptions, (vi) high technical and non-technical losses, and (vii) rampant corruption.

The country's power generation peaked at 4,420 MW in January 2012, and since then has actually declined to 3,200 MW, while a target of 10,000 MW had been fixed for this time by the Obasanjo government a decade ago. The power situation, which was acute prior to this decline, has worsened to critical levels. Given the massive amount of attention and investment given to the power sector in recent years to both meet demand and improve economic growth, the question remains whether the country can reform the sector to bring about the type of diversified economic growth that has been absent for decades.

Some of the blame for the current situation has been laid upon both the gas supply situation and inadequate ability to transmit the power. At the beginning of the year, when the system was peaking at 4,420 MW of generation, the constraint was the transmission system. Built to service a capacity of 4,000 MW, bottlenecks were created as the transmission system simply became overloaded and broke down. Coupled with explosions at a critical transmission substation, the transmission system currently limits any increased growth in generation beyond 4,400 MW.

Furthermore, gas supplies to power plants have been severely curtailed. Given that Nigeria has an estimated 176 trillion cubic feet of proven natural gas reserves and is the largest natural gas producer in Africa, gas supply should not be an issue. However, gas transmission infrastructure has not kept pace with generation construction. Power plants have been built with either limited sources of gas or inadequate transmission. Compounding the problem was the closing of a major natural gas line in 2012 because of leakage and the closing of a hydropower plant for repairs. Finally, state owned power plants have been poorly maintained and operated in part due to disgruntlement of the state labor force in the face of the impending privatization. Privatization of the power sector is expected to change this situation.

Country's 11 distribution and six (6) generation companies were recently privatized and investors have already paid in full for these companies and the new owners are in the process of establishing new management structures and processes at these companies. The Government has established a National Bulk Electricity Trader (NBET) to act as the intermediary between generating and distribution companies although the possibility does exist for direct contracting.

B.3 Project Background

The Grantee proposes to build and operate a gas-fired power plant at its Flower Gate site (the Project) to provide power to its own food processing facility. The Grantee is considering expanding the power plant to provide electric power and/or other services (i.e. heat, hot water) to other facilities located on the Grantee's owned land within the Flower Gate Industrial Estate. The Grantee has already identified a number of off-takers. The Grantee is also considering providing electric power to other facilities and off-takers within and outside of the Flower Gate Industrial Estate, including, but not limited to, the Ibadan Distribution Company, Ogun State Government facilities in Abeokuta and other facilities in the industrial area surrounding the Grantee's Flower Gate site. The Grantee has requested U.S. Trade and Development Agency (USTDA) to provide funding for a feasibility study (the Study) to be carried out by a U.S. firm (the Contractor) to be selected competitively.

The Grantee's food business group has acquired 62.8 hectares of land at an area called Flower Gate Industrial Estate near the Shagamu Interchange. This area has the potential to become a major industrial location by virtue of its proximity to both the Lagos-Ibadan Expressway and the A121 Benin-West Nigeria trunk road. The Foods business has firm plans for seven new production process plants on the site. It is then expected that the remaining plots will be made available for future Honeywell and third party business expansion.

The primary energy requirements of the site will be provided by gas supplies from a to-be-constructed spur from the Escravos-Lagos pipeline system (ELPS). This

pipeline is part of the Nigerian Gas Master plan. The Nigerian Gas Company (NGC) plans to build the spur, which will eventually extend northwards to Ibadan.

Due to the lack of availability and reliability of electric power through national grid, industrial facilities in Nigeria generally self-generate – building a dedicated power generation plant on site. An industrial facility may additionally be connected to the central power system through the local electricity distribution company (DISCO). The rationale for self-generation is a combination of low availability of grid power and intermittency of grid supplies. Power is typically supplied from the grid for only around 30% of the time in Nigeria. The problem of intermittency is particularly acute for operators of process plants, where the changeover period between grid and internal power supplies can cause significant impact on product quality, and consequently production losses. This causes some plant owners to forego grid connections and rely entirely on their own generation.

The Project would initially supply the Grantee's own food processing demand (4MW for the first plant on site, rising to 50MW when the subsequent food processing facilities are built in the following 6-8 years). It would be positioned to supply other factories located on the Honeywell-owned land, and possibly additional third-party facilities nearby. It is estimated that third party facilities could require 10MW in 5 years and 40MW in 10 years' time. The Project could also potentially provide reliable 24-7 power supplies to customers within the land corridor to Abeokuta, the capital of Ogun State, via a private distribution network. [REDACTED] An additional possibility exists for the Project to supply power to the local DISCO as an "embedded" generator. The size of the potential demand for this type of customer is as yet unknown. However, even without this source of potential demand, the Project could generate up to 100MW within 10 years.

The Project will be built on the Grantee's owned land and will be supplied natural gas from NGC's new pipeline. New capacity would be added incrementally to match demand as new industrial facilities are built and enlisted. Customers will be charged competitive prices based on either local DISCO rates or the all-in costs of self-generation. New tenants on Honeywell land maybe obliged to purchase their power requirements from the Project, depending on the business model developed. The competitive advantage of the Project will depend on: creating economies of scale for equipment purchase and operation; pooling the capacity margin that is required to deliver high reliability; and sourcing gas at lower costs once the scale of the plant allows fuel to be sourced competitively from sources other than NGC (NGC is the owner and operator of the national gas transmission network and by law is required to transport natural gas purchased from third parties).

B.4 Project Benefits

The economics of and cost of self generation for an industrial facility depends significantly on the type of fuel type that is used: diesel generators have a variable

fuel cost of production of around N47/kWh (\$0.30/kWh), whereas the tariff for industrial customers supplied by the local DISCO is around N23.6/kWh (\$0.15/kWh) on an all-in basis. Small gas-fired generating plants operating on NGC-supplied gas have an all-in cost (including returns on investment) of around N27/kWh. Larger plants operating with directly sourced gas can provide power at lower costs. The current Multi-Year Tariff Order of 2012 (MYTO2) establishes a tariff of around N12/kWh(\$0.08/kWh) for larger, central generators.

[REDACTED]

However, the relative merit of building additional distribution infrastructure to carry power to customers at a greater distance is harder to determine. The regulatory issues with regard to operating a mini-grid as well as issues such as customer willingness to pay a premium for guaranteed supplies will need to be considered, together with the extent to which power purchase exclusivity and minimum guarantees can be achieved. However, the Project presents a number of potential advantages for the existing and new facilities at the Flower Gate Industrial Estate, including:

- Reductions in capital costs when building new facilities, due to elimination of need for self-generation facility;
- A reduction in space requirements;
- Reductions in operational complexity and ongoing need for management attention to power generation related issues.

In addition, it is expected that supply reliability would be greater from the Project than when a facility utilizes self-generation due to redundancies that can be built in to a larger centralized plant relative to a small self-generation plant. Furthermore, potential customers in an extended corridor to Abeokuta would benefit from 24-7 power supply. The availability of this service could be expected to attract new businesses to the area.

C. Project Sponsor

The Grantee, Honeywell Group, is one of the largest conglomerates in Nigeria. It is a diversified group with business interests in key sectors of the economy, including foods and agro-business, energy (oil, gas and power), infrastructure, real estate and services. It was established as Honeywell Enterprises in 1972.

[REDACTED]

Since then, the Honeywell Group, Chaired by Dr. Oba Otudeko, who is also the Chairman of First bank Holdings Plc., Fan Milk of Nigeria Plc. and former Chairman of Airtel Nigeria and, has grown to become one of Nigeria's leading indigenous conglomerates. The Honeywell Group is now a major diversified group engaged in select businesses in key sectors of the Nigerian economy, including; foods and agro-

business, energy (oil, gas and power), infrastructure, real estate and services, and through other portfolio investments the Group is also a significant provider of capital to other sectors of Nigeria's economy including banking, telecommunications, dairy foods and logistics. Operating from offices in Nigeria and the United Kingdom, the Group employs over ten thousand people, local and expatriate staff. The Grantee's recent business initiatives include:

- **Power** -Around 12 people are currently engaged on business and project development activities at the Group level, supplemented by resources from operating companies and external consultants as needed. Power project activities have included:
 - **Flour Mills Generation:** the Grantee has developed and built a 12MW gas-fired installation in its existing flour mills at Apapa in Lagos for providing power to its own facilities (self generation).
 - **Hudson Power:** the Grantee originated this project in 2006. A separate project company was established in 2007 to pursue the development of a gas-fired IPP in Ogun State, just north of Lagos. The project is being developed in stages; the first stage is a 150MW project which has achieved a number of development milestones, namely:
 - Land has been purchased
 - A generation license has been obtained
 - The project is on the Federal Government's list of those potentially eligible for a World Bank Partial Risk Grantee (PRG)
 - An initial generation concept based on the use of GE LM6000 turbines has been produced
 - An ESIA has been completed and submitted to the World Bank and Nigeria's Federal Ministry of Environment
 - A 330KV grid connection has been secured from Transmission Company of Nigeria (TCN)
 - Nigeria Gas Company (NGC) has agreed in principle to connect the plant to the nearby pipeline system
 - An MOU has been signed with GE for joint development of the project
 - Worley Parsons have been retained as technical adviser
 - Has developed implementation plan for the completion of development, financing and construction of this project.
 - **PHCN Privatization:** the Group was a bidder for the Power Holding Company of Nigeria (PHCN)DISCOs. A detailed and comprehensive bid was produced with the assistance of TetraTech. Honeywell was a reserve bidder for the Eko DISCO in Lagos.
 - **National Integrated Power Project (NIPP) Privatization:** the Group pre-qualified to bid on all 10 power plants that were being privatized in Nigeria. Following analysis of the likely attractiveness of an investment, a decision was made to focus on origination and development of green-field sites.
 - **Flower Gate IPP:** The Project being proposed for the USTDA funding has been conceived as a captive generator that will initially supply

Honeywell's demand at its new site at the Flower Gate Industrial Estate, and then potentially expand to provide power to other customers. Land has been allocated within the site master-plan.

- **[REDACTED]**
- **Property:** various commercial and residential real-estate developments in Lagos and Abuja.
- **Foods:** a series of new product lines are planned to be sold under the Honeywell brand.
- **Gas-based industries:** a pre-feasibility study is being planned for 2014 to determine the location for a world-scale production plant for methanol, ammonia/urea or petrochemicals. A plant will make use of Nigeria's considerable unutilized gas resources.

D. Project Financing Plan

The Grantee plans to finance the first phase of the Project (5-6 MW) using balance sheet financing with possibly some local bank loans. The exact mechanisms of financing future expansion will depend on the rationale and/or nature for/of capacity additions. Future capacity expansion could be financed from the Project's retained earnings, new equity and further debt. The Grantee plans to finance small (less than 5 MW) capacity additions on the Project Company's balance sheet and the larger capacity additions by utilizing ring-fenced, non-recourse financing.

U.S. ExIm Bank is open for public and private sector transactions in Nigeria for short, medium and long term financing. It is possible that ExIm Bank could provide debt financing to the Grantee for the future phases of the project, but it is unlikely that the Grantee will utilize EXIM Bank financing. ExIm could provide financing with a direct corporate obligation of the Honeywell Group for smaller projects. For the larger projects that Honeywell prefers non-recourse financing, ExIm would need to analyze each of the prospective offtakers of power (e.g. lessees). DISCOs and other offtakers outside of Flower Gate would need other credit mitigants (i.e. partial risk guarantee, sovereign guarantee, local bank guarantee).

The U.S. EXIM Bank funding for projects in Nigeria are provided through the Nigeria EXIM Bank, apparently at a higher rate than the U.S. EXIM, most commercial banks in Nigeria, and other available funding sources.

E. U.S. Export Potential

Based on our analysis, the total Project costs could easily reach \$64 - \$87 million over 10 years with a realistic U.S. export potential of \$25 - 35 million.

The Project holds the potential to generate significant U.S. exports of goods and services. Nigeria does not currently have the means to manufacture the gas fired engines or turbines or the instrumentation and control system required for implementation of the Project. Consulting and engineering services for the power generation plant and potentially the mini-grid are also limited in Nigeria.

Accordingly, nearly all of the required technologies, equipment and services will have to be imported, with the exception of local labor and civil work.

The table below gives the total cost breakdown for major components with likelihood of U.S. exports and estimated realistic U.S. exports. The Project costs could vary widely depending on the eventual Project scale, equipment availability and other market factors. However, based on our analysis, the total Project costs could reach \$86 million with a realistic U.S. export potential of \$18 - \$25 million in the next 10 years.

Level of Potential U.S. Exports

Project Component	Implementation Cost (Million)	Likelihood of US Exports	Realistic US Export Potential (Million)
Civil Work	\$0.1-\$0.2	None	\$0
Mechanical Equipment (Turbine package -- turbine, Compressors, Pumps, etc.)	\$36 - \$49	40%	\$14.3 - 19.5
Electrical Equipment (Switchgears, Motor Control Center, Cables, etc.	\$4 - \$6	10%	\$0.4 - 0.6
Field Work	\$9 - \$13	None	\$0
Other Costs (Engineering, Legal, Financial services, etc.)	\$14 - \$19	25%	\$3.5 - 4.8
TOTAL	\$64 - \$86		\$18 - 25

As seen in the table above, U.S. exports of goods and services are very competitive internationally in all of the major components of the Project with the likelihood of U.S. exports ranked “High”. U.S. suppliers are the global leaders in power generation technologies and are actively pursuing foreign markets, including Nigeria. We have spoken with several potential U.S. suppliers of goods and services, including GE, Cummings, Fairbanks Morse and they are interested in the Nigerian market.

The table below shows U.S. and foreign companies that could compete for procurements resulting from implementation of the Project.

U.S. Suppliers and Foreign Competition for Distribution Modernization Projects

Equipment Category	Potential U.S. Firms	Foreign Competitors
Engines	<ul style="list-style-type: none"> ▪ GE (Waukesha) ▪ Caterpillar ▪ Cummings ▪ Fairbanks Morse 	<ul style="list-style-type: none"> ▪ Mitsubishi ▪ Wartsilla ▪ Kawasaki ▪ Jenbacher (GE)
Turbines	<ul style="list-style-type: none"> ▪ GE ▪ Allison (Rolls-Royce) ▪ P&W ▪ Combustion Associates Inc. 	<ul style="list-style-type: none"> ▪ Siemens ▪ Alstom
Engineering, Procurement and Construction Services	<ul style="list-style-type: none"> ▪ WorlyParsons ▪ CH2M Hill ▪ GE ▪ Power Engineers 	<ul style="list-style-type: none"> ▪ Many organizations in Europe and Asia including India

The Grantee has a history of working with the U.S. firms including with GE, Worley Parsons, and Tetra Tech.

F. Foreign Competition and Market Entry Issues

U.S. equipment suppliers are expected to meet strong competition from European and Asian companies in particular Wartsila, Mitsubishi and Jenbacher for engines and Siemens and Alstom for turbines. Most foreign suppliers of turbines and engines have local presence in Nigeria particularly for engines as back-up generator for residential, commercial, and industrial applications.

G. Developmental Impact

Nigeria is embarking upon an infrastructure evolution of impressive scale as the country expands and modernizes its entire electric power sector, including the generation, transmission and distribution of power. The development of a reliable source of power supply is a critical part of this initiative. Furthermore, the development of Flower Gate Industrial Estate, about 700 Hectares designated by the

government of Ogun State, is highly dependent on availability of a reliable source of power. The development of an independent power generation project at the Flower gate Industrial Estate would allow:

- Faster and more efficient development of the industrial estate;
- Industries on the estate to focus on their core business rather than power generation;
- A power plant that is operated and managed by a dedicate group power generation professionals and thus a more reliable source of electric power;
- Less reliance of the national grid and lower energy losses;
- Lower diesel consumption and air emissions.

The proposed Project would have significant developmental impacts if fully implemented, including the following:

Infrastructure – Specific infrastructure impacts resulting from the Project include the construction of modern power plant and further development of the industrial park. Measures of impact could include kilowatt hours delivered per year, the number of industries locating at the industrial park, and expansion of the natural gas network.

Human Capacity Building – Implementation of the Project will require considerable training in maintaining and operating a power plant efficiently. Training is typically provided as part of a procurement package for new systems. In addition, the Feasibility Study will identify any training needs for plant major maintenance and equipment overhauls.

Technology Transfer and Productivity Improvement – The Project will allow the industries on the site to focus on their core business improve their business operation rather than power generation. It will also allow power generation professionals to focus on power generation and operate the plant more efficiently and effectively as their core business.

Environment: The overall environmental impact of natural gas fired centralized power generation technology implementation at the Flower gate Industrial Estate is positive due to the fact that it improves generation efficiency, allows for load balancing, reduces diesel consumption, and improves air quality.

Other Developmental Impacts:The increased availability of reliable electric power will stimulate commercial and industrial development within the Flower Gate Industrial Estate and Ogun State. It will make commercial activities more efficient and it will open up industrial opportunities. In short it will spur economic activity and bring economic growth and improve the quality of life in the region.

While a number of power generation technologies will be evaluated during the Study, the use of a dedicated organization to provide power to all the businesses on the Industrial Estate is what will have a dramatic result on improving the delivery. The Flower Gate Industrial Estate is not currently connected to the national grid and the national grid is not currently very reliable. Furthermore, a local power generator can provide for supply and demand side management programs to reduce overall

electric power needs at the industrial estate by systematically reviewing power consumption and use patterns of various industries on the Estate. It will also allow the Grantee to expand its power generation business as an independent power producer.

H. Environmental Impact

The Project, if implemented, would entail the deployment of a captive and/or independent power producer. The construction of facility may lead to certain negative environmental impacts, which must be mitigated through the use of modern construction practices in accordance with applicable laws in Nigeria. The negative environmental impact of natural gas power generation is generally due to increased manufacturing of power generation equipment and generation of CO₂ from combustion of natural gas, but with proper application of industry best practices these negative impacts can be mitigated or minimized. The terms of reference includes a preliminary environmental impact analysis of the Project.

I. Evaluation Strategy

The DM Team recommends the following strategy for evaluating the effectiveness for USTDA funding of a Feasibility Study for this Project:

1. Project Sponsor Goals – Honeywell Group’s goal is to construct a power plant with a potential capacity of up to 100 MW.
2. Project Timeline –Honeywell Group plans to first construct and operate a 5-6 MW plant and increase the plant capacity to potentially about 100 MW over a decade as it expands its Flower Gate food processing facility and other industrial facilities are developed at Flower Gate Industrial Estate. Based on a 6 month expected timeline for the Study, approximately 4 months for the FS Contractor to begin work, and other delays, we expect the FS will be completed by the 4th quarter of 2014. We expect the Grantee to begin deployment of the first phase of the within 6 months of completion of the FS, in the 2nd quarter of 2015. The Project will be deployed in phases based on the recommendations, estimated return on investment, and funding priorities.
3. Phases of the Project would likely be built through individual EPC contracts over 10 years.
4. Potential risks faced during Project implementation include:
 - a. Expansion and modernization of grid by the distribution and the transmission company and development of large-scale gas fired IPPs reducing economic advantage of small scale self-generation or a local small scale IPP.

- b. Delays in construction of natural gas spur from the main natural gas pipeline to the Flower Gate Industrial Estate by NGC.
 - c. Delays in the development of the Flower Gate Industrial Estate.
5. The Project does not require any special approvals, per se. As an independent company, the Grantee has the autonomy to make investment decisions. However, the Grantee must work within the regulatory framework to secure approval for providing electrical power to other facilities specially for building a mini-grid for power transmission. The TOR addresses this through a task, which will look at regulatory issues. The DM team met with the Grantee's senior management team, which demonstrated its commitment to implementing the Project. The first phase of the Project is considered viable based on the fact the Grantee's own facility will need electric power and it is more economical for an IPP, with specialized staff and business focus on power generation, provide power to a number of facilities rather than each facility to self-generate not because power generation is their primary business but because they are forced to self-generate because of the lack of a reliable electric power supplier.
6. Regarding the evaluation of Project implementation, including U.S. export success, the Grantee should be the primary source of information regarding the implementation of the Project and any U.S. company involvement.

J. Recommendation

The Project, either as self-generation project or IPP, is a unique opportunity for USTDA to promote the use of small-scale gas turbine or gas-fired engines. The use of these technologies, as a replacement for diesel generation in Nigeria, will be critical not only for prompting cleaner power generation technologies but also for producing electricity more cost effectively at the Flower Gate Industrial Estate. Without the efficient and reliable delivery of power, industrial development will be slow and more costly. Commercially viable and reliable electric power generation will be essential to the financial sustainability of the industries at this site.

The magnitude of the market for U.S. small-scale, gas fired, turbines or an engines in Nigeria is significant. There is a move among industrial and commercial sector to replace diesel with natural gas or even compressed natural gas when pipeline natural gas is not available due to the high price of the diesel.

U.S. suppliers are the global leaders in gas-fired turbines and reciprocating engines and are actively pursuing foreign markets, including Nigeria. Based on our analysis, the total Project costs could easily reach \$64 - \$86 million over 10 years with a realistic U.S. export potential of \$18 - \$25 million. The Project has strong potential developmental impacts, overall positive environmental impacts, and fits well with the Government of Nigeria's plans to modernize and privatize electric power sector. The DM team recommends USTDA funding for the Flower Gate power generation Feasibility Study in the amount of \$450,229.

K. Impact on U.S. Labor

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

L. Contacts

Chris Bale, CEO Power, Honeywell Group
6B Mekunwen Road
Off OyinkanAbayomi Drive
Ikoyi, Lagos
Office: +234 1 2900525
Mobile: +234 812 912 9420
E-mail: chris.bale@honeywellgroup.com

Akitoye Ogboye, Project Development Lead, Power, Honeywell Group
6B Mekunwen Road
Off OyinkanAbayomi Drive
Ikoyi, Lagos
Office: +234 1 2900525
Mobile:+234 806 415 9109
E-mail: Akitoye.Ogboye@honeywellgroup.com

ANNEX 3



U.S. TRADE AND DEVELOPMENT AGENCY
Arlington, VA 22209-3901

NATIONALITY, SOURCE, AND ORIGIN REQUIREMENTS
[As of January 17, 2014]

The purpose of USTDA's nationality, source, and origin requirements is to ensure 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, the following provisions shall govern the delivery of goods and professional services funded by USTDA under the Grant Agreement:

- (a) the Contractor must be a U.S. firm;
- (b) the Contractor may use U.S. subcontractors without limitation;
- (c) employees of U.S. Contractor or U.S. subcontractor firms shall be U.S. citizens, non-U.S. citizens lawfully admitted for permanent residence in the United States or non-U.S. citizens lawfully admitted to work in the United States, except as provided pursuant to subpart (d) below;
- (d) up to twenty percent (20%) of the USTDA Grant amount may be used to pay for services performed by (i) Host Country subcontractors, and/or (ii) Host Country nationals who are employees of the Contractor;
- (e) a Host Country subcontractor may only be used for specific services from the Terms of Reference identified in the subcontract;
- (f) subcontractors from countries other than the United States or Host Country may not be used;
- (g) 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

(h) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in Host Country are not subject to the above restrictions.

NATIONALITY:

1) Application

A U.S. firm that submits a proposal must meet USTDA's nationality requirements as of the date of submission of the proposal and, if selected, must continue to meet such requirements throughout the duration of the USTDA-funded activity. These nationality provisions apply to all portions of the Terms of Reference that are funded with the USTDA grant.

2) Definitions

A "U.S. firm" is a privately owned firm that 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. citizens and/or non-U.S. citizens lawfully admitted for permanent residence in the United States, 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 that is organized in the U.S., has its principal place of business in the U.S., and is more than 50% owned by U.S. citizens and/or permanent residents, qualifies as a "U.S. firm".

A nonprofit organization, such as an educational institution, foundation, or association, also qualifies as a "U.S. firm" if it is incorporated in the U.S. and managed by a governing body, a majority of whose members are U.S. citizens and/or permanent residents.

SOURCE AND ORIGIN:

Definitions

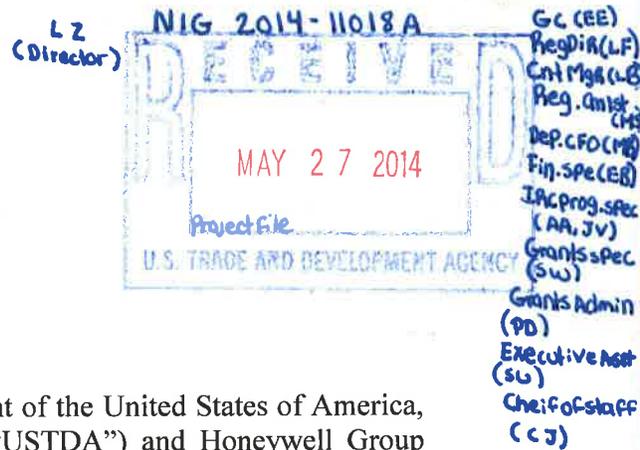
"Source" means the country from which shipment is made.

"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.

Version 01.17.2014

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 Honeywell Group Limited ("Grantee"). USTDA agrees to provide the Grantee under the terms of this Grant Agreement US\$455,000 ("USTDA Grant") to fund the cost of goods and services required for a feasibility study ("Study") on the proposed Flower Gate gas-fired power plant project ("Project") in Nigeria ("Host Country").

1. USTDA Funding

The USTDA Grant 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 incorporated by reference into 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. Therefore, USTDA, the Grantee, and the Contractor shall not directly or indirectly provide, offer or promise to provide money or anything of value to any public official in violation of any United States or Host Country laws relating to corruption or bribery.

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. Contract Matters and USTDA's Rights as Financier

(A) Grantee Competitive Selection Procedures

Selection of the U.S. Contractor shall be carried out by the Grantee according to its

established procedures for the competitive selection of contractors with advance notice of the procurement published online through *Federal Business Opportunities* (www.fedbizopps.gov). Upon request, the Grantee will submit these contracting procedures and related documents to USTDA for information and/or approval.

(B) USTDA's Right to Approve Contractor Selection

The Grantee shall notify USTDA at the address of record set forth in Article 16 below upon selection of the Contractor to perform the Study. USTDA then shall notify the Grantee whether or not USTDA approves the Grantee's Contractor selection. Upon USTDA approval of the Grantee's Contractor selection, the Grantee shall notify in writing the U.S. firms that submitted unsuccessful proposals to perform the Study that they were not selected. The Grantee and the Contractor then shall enter into a Contract for performance of the Study.

(C) USTDA's Right to Approve Contract Between Grantee and Contractor

(1) Contract

The Grantee and the Contractor shall enter into a Contract for performance of the Study. The Grantee (or the Contractor on the Grantee's behalf) shall transmit to USTDA, at the address set forth in Article 16 below, a photocopy of an English language version of the signed Contract or a final negotiated draft version of the Contract. USTDA then shall notify the Grantee and the Contractor whether or not USTDA approves the Contract.

(2) Amendments and Assignments

The Grantee or the Contractor may submit any proposed amendment to the Contract, including any proposed amendment to any annex thereto, or any proposed assignment of the Contract, to USTDA at the address set forth in Article 16 below. USTDA then shall notify the Grantee and the Contractor whether or not USTDA approves the proposed amendment or assignment.

(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 U.S. 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 any subcontract thereunder must be consistent with this Grant Agreement. In the event of any inconsistency between the Grant Agreement and the Contract or any subcontract funded by the Grant Agreement, the Grant Agreement shall control.

6. Disbursement Procedures

(A) USTDA Approval of Contract Required

USTDA will make disbursements of USTDA 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 Contract 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. In the event that only one signature is dated, such date shall constitute the Effective Date.

8. Study Schedule

(A) Study Completion Date

The completion date for the Study, which is December 31, 2014, 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, (i) 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 (ii) no USTDA funds may be disbursed more than four (4) years after the Effective Date of the Grant Agreement.

9. USTDA Mandatory Contract Clauses

All contracts funded under this Grant Agreement shall include the USTDA Mandatory Contract 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 Contract Clauses, except for Clauses B(1), G, H, I, and S.

10. Use of U.S. Carriers

(A) Air

Transportation by air of persons or property funded under this 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 this 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 professional services funded by USTDA under the Grant Agreement:

- (a) the Contractor must be a U.S. firm;
- (b) the Contractor may use U.S. subcontractors without limitation;
- (c) employees of U.S. Contractor or U.S. subcontractor firms shall be U.S. citizens, non-U.S. citizens lawfully admitted for permanent residence in the United States or non-U.S. citizens lawfully admitted to work in the United States, except as provided pursuant to subpart (d) below;
- (d) up to twenty percent (20%) of the USTDA Grant amount may be used to pay for services performed by (i) Host Country subcontractors, and/or (ii) Host Country nationals who are employees of the Contractor;
- (e) a Host Country subcontractor may only be used for specific services from the Terms of Reference identified in the subcontract;
- (f) subcontractors from countries other than the United States or Host Country may not be used;

(g) 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

(h) 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 this Grant Agreement shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in Host Country, except for taxes of a de minimis nature imposed on local lodging, food, transportation, or airport arrivals or departures. Neither the Grantee nor the Contractor will seek reimbursement from USTDA for taxes, tariffs, duties, fees or other levies, except for taxes of a de minimis nature referenced above.

13. USTDA Project Evaluation

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, the Grantee agrees to respond to any reasonable inquiries from USTDA about the status of the Project. Inquiries will include, but not be limited to, whether the Final Report recommendations have been or will be used to implement the Project, anticipated Project implementation timeline, and likely source of financing. In addition, the Grantee agrees to notify USTDA any time the Grantee selects a new primary contact person for this Project during the five-year period referenced above.

14. Recordkeeping and Audit

The Grantee agrees to maintain books, records, and other documents relating to the Study and this Grant Agreement adequate to demonstrate implementation of its responsibilities under this 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.

15. Representation of Parties

For all purposes relevant to this 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 its Chairman. The parties hereto may, by written notice, designate additional representatives for all purposes under this Grant Agreement.

16. 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 an electronic medium that produces a tangible record of the transmission, such as a facsimile or e-mail message, and will be deemed duly given or sent when delivered to such party at the following:

To: Mr. Akitoye Ogboye
Team Lead, Power Department
6B Mekuwen Road
Off Oyinkan Abayomi Drive
Ikoyi, Lagos, Nigeria

Phone: 234-1-290-0525
E-Mail: Akitoye.Ogboye@honeywellgroup.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
E-Mail: Africa@ustda.gov

All such communications shall be in English, unless the parties otherwise agree in writing. In addition, the Grantee shall provide the Commercial or Economic 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 14/15 1001
Activity No.: 2014-11018A
Reservation No.: 2014157
Grant No.: GH201411157

17. 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 this Grant Agreement. USTDA may also issue implementation letters to (i) extend the estimated completion date set forth in Article 8(A) above, or (ii) change the fiscal data set forth in Article 16 above. The parties may also use jointly agreed upon implementation letters to confirm and record their mutual understanding of matters covered by this Grant Agreement.

18. Grant Agreement Amendments

Either party may submit to the other party at any time a proposed amendment to the Grant Agreement. A Grant Agreement amendment shall be effective only if it has been signed by both parties.

19. Termination Clause

Either party may terminate this Grant Agreement by giving the other party written notice thereof. 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 that may be made pursuant to Clause H of the USTDA Mandatory Contract Clauses set forth in Annex II to this Grant Agreement. This article and Articles 5, 12, 13, 14, and 21 of the Grant Agreement shall survive termination of the Grant Agreement.

20. 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.

21. 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.

22. Governing Law

This Grant Agreement shall be governed by, and construed in accordance with, the applicable laws of the United States of America. In the absence of federal law, the laws of the State of New York shall apply.

23. Counterparts

This Grant Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement. Counterparts may be delivered via electronic mail or other transmission method and any counterpart so delivered shall be deemed to be valid and effective for all purposes.

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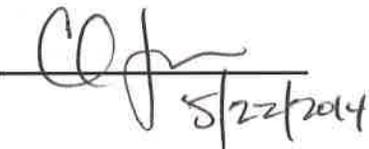
IN WITNESS WHEREOF, the Government of the United States of America and Honeywell Group Limited, each acting through its duly authorized representative, have caused this Grant Agreement to be signed in the English language in their names and delivered as of the day and year written below. In the event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

**For the Government of the
United States of America**

By: 

Date: 5/22/2014

Witnessed:

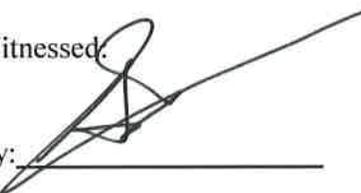
By:  5/22/2014

**For
Honeywell Group Limited**

By: 

Date: 22 May 2014

Witnessed:

By: 

Annex I -- Terms of Reference

Annex II -- USTDA Mandatory Contract Clauses

Annex I

Terms of Reference

The purpose of this feasibility study (“Study”) is to evaluate and develop plans in support of Honeywell Group Limited (“Grantee”) for the proposed Flower Gate gas-fired power plant project in Nigeria (“Project”). The Study shall determine a conceptual plant size and configuration that can meet the demands of the Grantee’s food processing plant(s) and cold storage unit(s) at the Flower Gate Industrial Estate in Ogun State, Nigeria (“Flower Gate”). The Study shall also include recommendations regarding the implementation of the proposed mini-grid. The Contractor shall account for the proposed options for the Project including, but not necessarily limited to, the following:

- Captive power supply to the Grantee-owned facilities
- Captive power supply to facilities located on the Grantee-owned land at Flower Gate using a private distribution network
- Captive power supply to facilities, outside of the Grantee-owned facilities, within Flower Gate using a private distribution network
- The evacuation of power to the Ibadan Electricity Distribution Company

The Contractor shall perform the following tasks:

Task 1: Kick-off Meeting and Detailed Work Plan

The Contractor shall travel to Nigeria to meet with the Grantee to (a) review, discuss, and refine overall strategy, scope, objectives, and deliverables of the Study, (b) define and clarify the Grantee’s and Contractor’s roles and responsibilities with respect to the Study, and (c) discuss the Grantee’s short- and long-term objectives for the Project.

The Contractor and the Grantee shall also review the following components of the Study: the Contractor’s approach and methodology for specific tasks under this Terms of Reference; the Contractor’s documentation and project management reporting requirements under this Terms of Reference; and the Contractor’s complete work plan for the Study. The Contractor’s complete work plan shall include all Study activities, milestones, deliverables, and schedule. The Contractor’s detailed work plan for the Study shall be reviewed with the Grantee in a kick-off meeting and the Contractor shall obtain the Grantee’s concurrence on timelines and the work plan for the Study. This work plan shall be used by the Contractor to assess the Study’s progress and accomplishments on a monthly basis and report to the Grantee any deviation or delays from the timeline.

Task 1 Deliverable: The Contractor shall prepare a report including all work performed under Task 1, including, but not limited to detailed work plan including schedule, milestones, and deliverables for the Project. The Task 1 Deliverable shall be included in the Final Report.

Task 2: Market Review & Survey

Subtask 2a: Market Research and Analysis

The Contractor shall analyze the current and projected future power generation in Flower Gate. The Contractor shall analyze how such power generation would affect and be affected by (a) the current and projected future demand and (b) the needs and requirements for a mini-grid for the Project.

The Contractor shall perform market research and analysis to determine the potential offtakers for the Project. The Contractor shall meet and discuss with the representatives of the Grantee; the relevant state agency(ies) responsible for the development of Flower Gate; and potential offtakers, including, but not limited to:

- Existing and operational facilities within Flower Gate;
- Representatives of the Ibadan Electricity Distribution Company; and
- Other prospective offtakers, including the Ogun State government.

In addition, The Contractor shall survey potential offtakers within Flower Gate to determine their respective preferences for self generation and/or the purchase of electricity, heat and/or hot water from a potential independent power producer (IPP). The Contractor shall determine the potential future offtakers' willingness to pay and how much the potential future offtakers would pay for a reliable supply of electricity and/or heat and hot water for 24 hours a day, seven days a week.

Based on the Contractor's market research and analysis, the Contractor shall assess the current and future electric power requirements of the prospective offtakers and when such prospective offtakers would need the power, and make a recommendation to the Grantee as to the current and future market demand for electricity, heat and hot water at Flower Gate.

Subtask 2b: Market Forecast

Based on the market research and analysis performed in Subtask 2a, the Contractor shall prepare a short-term (five-year period) and long-term (ten-year period) market forecast for the Project, including, but not limited to the following components:

- Potential future offtakers; and
- Potential future competitors.

Based on the above market research and analysis performed in Subtask 2a and the market forecast, the Contractor shall provide a recommendation to the Grantee that shall include:

- The scale of facility that should be built for the Project (i.e. MW);
- The type of facility that should be built for the Project (i.e. electricity and/or heat and hot water); and

- An outline of potential customers for the Project.

This information shall be used in Task 5 for sizing the plant capacity and plant configuration (i.e. number of gas turbines, potential expansion of scale (in MW) of plant, development phases, etc.).

Task 2 Deliverable: The Contractor shall prepare a report including all work performed under Task 2, including, but not limited to the current and potential market demand for the Project. The Task 2 Deliverable shall be included in the Final Report.

Task 3: Natural Gas Supply

The Contractor shall determine the current, short-term (five-year period) and long-term (ten-year period) fuel source requirements for the Project. The Contractor shall also establish the trend in natural gas supply and demand in Nigeria and project natural gas prices for the next 20 to 25 years using publically available data sources. The Contractor shall also determine what fuel source is currently available for the Project and the extent such fuel source will meet the requirements of the Project. Based on this information, the Contractor shall provide the Grantee with a list of all relevant gas fuel sources for the Project. The Contractor shall contact prospective gas fuel sources, including, but not limited to, the Nigerian Gas Company.

Based on its data gathering and discussions with relevant stakeholders, the Contractor shall specifically assess the timing and schedule for the construction of the Nigerian Gas Company's natural gas spur pipeline from the main natural gas trunk pipeline ("Escravos-Lagos Gas Pipeline") to the Flower Gate site, as this pipeline could act as a potential source of fuel sources for the Project.

The Contractor shall also assess the availability of potential natural gas fuel sources to meet the projected electricity and/or heat and hot water demand as established in Tasks 1 and 2. The Contractor shall also assess the availability and price of CNG, LNG and other gaseous fuels as back-up or emergency fuel, if necessary, for the Project. If the Contractor determines that back-up or emergency fuel is required for the Project, the Contractor shall recommend to the Grantee the most effective form of back-up or emergency fuel for the Project and the amount of back-up or emergency fuel required for the Project.

Based on this analysis, the Contractor shall recommend to the Grantee a proposed fuel source(s) for the Project. The Contractor shall include this recommendation in a detailed report. The report shall also include projected prices for natural gas and any potential back-up/emergency fuel for a period of 25 years.

Based on the Contractor's findings under this task and earlier Tasks, the Contractor shall deliver a proposed energy pricing strategy to the Grantee that would propose price structures for the proposed offtakers based on the level of demand within Flower Gate

and fuel supply for the Project. The energy pricing strategy shall include a list of potential facilities that could purchase electricity and/or heat and hot water from the Project, the amount required by each facility, and the price that each facility, including the Ibadan Electricity Distribution Company and/or Nigerian Bulk Electricity Trading Plc. (NBET) would be willing to pay.

Task 3 Deliverable: The Contractor shall prepare a report including all work performed under Task 3, including, but not limited to the Contractor's fuel source(s) recommendation(s), projected natural gas prices, and an energy pricing strategy for the Project. The Task 3 Deliverable shall be included in the Final Report.

Task 4: Regulatory Review and Permits

The Contractor shall review the regulatory framework environment and requirements in Nigeria, and the associated impact of such environment and requirements on the electricity tariff for the Project.

The Contractor shall identify and analyze:

- Policy and/or legislative actions that could either act as potential barriers to the implementation of the Project or would be necessary or beneficial for the implementation of the Project;
- All pertinent documents that deal with import taxes, duties and fees, corporate and personal income taxes, and property and other taxes related to the implementation of the Project;
- All permitting requirements, regulations regarding the participation of foreign partners, regulations that impact environmental requirements, and any other regulatory issues that may have a significant impact on the Project, including, but not limited to, reporting on the quality of electricity and/or heat and hot water service and supply standards required by the regulators.

The Contractor shall identify the regulations that could potentially affect the Project and provide the Grantee with options on how to avoid or mitigate any negative effects such regulations may have on the Project.

The Contractor shall also identify any capacity and/or size limitation that may pose an advantage or disadvantage to the Project, and the Contractor shall specifically outline how this may minimize or maximize the permit and/or license requirements.

In addition to the review of power generation regulation(s) in Nigeria, the Contractor shall also review the Nigerian regulatory framework for developing a mini-grid to supply electricity to the Project's potential facility clients (inside and outside of the Flower Gate Industrial Estate) as established in Task 2.

The Contractor shall also develop and recommend an optimal electricity tariff for each of the different classes of customers for power generation and electricity distribution that would be applicable to the Project.

The Contractor shall also identify any permits that may be required for construction and operation of the Project, including, but not limited to water supply/use, heat supply/use, hot water supply/use, wastewater discharge, environmental, and IPP construction and/or operation.

The Contractor shall outline its findings under this task into a regulatory report. The report shall highlight regulatory advantages or barriers that the Project may face within Nigeria. The report shall also include a plan on how the Grantee can avoid, mitigate, or overcome any potential regulatory barrier to the Project.

Task 4 Deliverable: The Contractor shall prepare a report including all work performed under Task 4, including, but not limited to the Contractor's regulatory report for the Project. The Task 4 Deliverable shall be included in the Final Report.

Task 5: Project Scale and Configuration

Based on Tasks 1-4, the Contractor shall determine a conceptual plant size and configuration that meets the immediate and near term (3 to 5 years) needs of the Project. The plant configuration shall take into account any future plant expansion needed to meet the long-term (5 to 10 years) demand within and outside of the Flower Gate Industrial Estate for electric power and heat, hot water, emergency and/or back-up fuel. The Contractor shall prepare a plant layout, process drawings and energy and material balance for the Project as well as a single-line electrical diagram. The Contractor shall also produce a single-line electrical diagram for the mini-grid showing the major electrical equipment for reliable supply of electricity to the Project's existing and future customers. The Contractor shall outline its findings to the Grantee in a report which shall include the Contractor's recommendations for process flows and equipment layout, as well as the single-line electrical diagrams outlining proposed present immediate and near term (3 to 5 years) and long-term (5 to 10 years) configurations for the Project.

Task 5 Deliverable: The Contractor shall prepare a report including all work performed under Task 5, including, but not limited to the Contractor's report on process flows, equipment layout, and proposed configurations for the Project. The Task 5 Deliverable shall be included in the Final Report.

Task 6: Capital and Operating Cost Estimate

Based on Tasks 1-5, the Contractor shall develop capital and operating costs for the Project, and if applicable, include the construction and operation of the mini-grid. The capital and operating costs shall include account for any associated costs for any future expansion per the results of previous Tasks. Based on its findings, the Contractor shall

deliver to the Grantee a report summarizing the overnight capital costs and operating costs and total projected capital costs and operating costs for the Project.

Task 6 Deliverable: The Contractor shall prepare a report including all work performed under Task 6, including, but not limited to the Contractor's report on overnight capital costs and operating costs for the Project. The Task 6 Deliverable shall be included in the Final Report.

Task 7: Financial Analysis

Based on Tasks 1-6, the Contractor shall develop a financial model to analyze the Grantee's internal rate of return (IRR) and a 10 year revenue forecast for the Project, including the development of a mini-grid if applicable. The Contractor's analysis shall include, but not be limited to overnight capital costs, capital costs, annual operating costs, and the projected tariffs (if applicable) as established by the regulator over 15 to 20 years. The model shall estimate potential interest which may be accrued during the construction and allow for the input of estimated project development costs, including, but not limited to technical costs, legal costs, financial service costs. The model shall also allow for the input of escrow amounts and other cost items that may not be included in the overnight capital cost or the annual operating cost as separate cost items. The Contractor shall use the model to estimate the rate of return on equity or IRR before and/or after corporate taxes. The model may assume up to three different sources of debt with varying interest rates and terms. The Contractor shall clearly define and justify any assumption, such as any escalation or inflation rate.

The Contractor shall develop and validate the model, estimate the IRR for a base case and perform sensitivity analyses establishing the sensitivity of IRR to a range of key variables established in consultation with the Grantee which may include, but is not limited to, capital cost, duration of construction, interest rate, natural gas prices, and debt to equity ratio.

The Contractor's financial model shall (i) combine various assumptions regarding expected network revenues, market segment growth, capital expenditures, financial costs and other relevant factors (exclusive of taxation) and (ii) provide a range of financial outcomes as a function of these factors. The financial model shall assess any relevant variables to the Project such as fuel supply sources, including, but not limited to the supply of CNG, LNG, and other gaseous fuels. Using the financial model, the Contractor shall also develop a profitability analysis and shall generate appropriate financial pro formas including an income statement, balance sheet, and cash flow statement, as well as calculations of net present value, the internal rate of return and earnings before interest, taxes, depreciation, and amortization ("EBITDA").

Task 7 Deliverable: The Contractor shall prepare a report including all work performed under Task 7, including, but not limited to the Contractor's financial model for the Project. The Task 7 Deliverable shall be included in the Final Report.

Task 8: Financing Plan

The Contractor shall develop a financing plan and a financing strategy, including several approaches to securing financing for the Project based on discussions with the Grantee and potential lenders and financiers. The Contractor shall outline its rationale for the financing plan and financing strategy and shall take into account factors such as timing, interest rates, potential financing terms, etc. The Contractor shall identify any Project risk factors and develop a risk avoidance/reduction plan for each factor by means of insurance and bonding or other means, adequate to the requirements of the funding sources, including host country sources, multilateral financiers, and others.

Specifically, the Contractor shall identify and analyze potential funding sources for financing the immediate and near term implementation (3 to 5 years) of the Project and proposed expansion of the Project (5 to 10 years) which may include a mini grid. The Contractor's analysis shall include, but not be limited to:

- Internal funds from the Grantee's resources;
- Combination of internal budget funds and private banks, including, but not limited to, local Nigerian private banks;
- Combination of internal budget funds and development financing from international financial institutions such as the Overseas Private Investment Corporation (OPIC) and the International Finance Corporation;
- Combination of the above and export credit financing from the United States Export-Import Bank; and
- Blended financing from debt and equity from a variety of donors.

Based on its findings, the Contractor shall provide a recommendation to the Grantee of the most effective financing sources for the Project.

Task 8 Deliverable: The Contractor shall prepare a report including all work performed under Task 8, including, but not limited to the Contractor's financing plan and a financing strategy. The Task 8 Deliverable shall be included in the Final Report.

Task 9: Preliminary Environmental Impact Assessment

The Contractor shall conduct a preliminary review of the Project's anticipated impact on the environment with reference to local requirements. The preliminary environmental impact assessment shall also consider international standards required by international financial institutions including the World Bank Group and the African Development Bank. The Contractor's review shall identify potential negative impacts, discuss the extent to which they can be mitigated, and develop plans for a full environmental impact assessment needed for the Project. The Contractor shall provide a roadmap that outlines the ways that any potential negative environmental impacts can be mitigated, including the identification of steps that will need to be undertaken by the Grantee prior to Project implementation.

Various sources of fuel can potentially affect the environmental impact assessment. As such, the Contractor shall also assess the advantages and/or disadvantages of utilizing a centralized power plant versus self-generation at each facility including:

- Savings on fuel, including, but not limited to diesel, CNG, LNG and/or natural gas;
- Air emissions reductions, including, but not limited to sulphur oxides (SOx) and nitrogen oxides (NOx), and particulate matter, due to potential higher efficiency and capacity factor of a central plant;
- Level of reduction in carbon emissions due to the higher efficiency and capacity factor of a central plant; and
- Any significant issues related to transportation and storage of CNG, LNG and/or other gaseous fuels.

Task 9 Deliverable: The Contractor shall prepare a report including all work performed under Task 9, including, but not limited to the Contractor's roadmap as to how to mitigate potential negative environmental impacts. The Task 9 Deliverable shall be included in the Final Report.

Task 10: Host Country Development Impacts

The Contractor shall conduct a development impact assessment of the Project. The purpose of the development impact assessment is to provide the Project's decision makers and interested parties with a broader view of the Project's potential effects on Nigeria. The Contractor shall analyze the impact of the Project on infrastructure, market-oriented reforms, technology transfer and productivity, human capacity building and environment. The analysis shall focus on the development impacts that are likely to occur if the Project is implemented according to the Study recommendations. While specific attention shall be paid to the immediate impacts of the Project, the analysis shall also include any development impacts that may result from the Project's implementation, where appropriate, including spin-off and demonstration effects such as the potential for additional captive power projects. In particular, the Contractor shall assess the impact of the Project on:

- (1) Infrastructure: The Contractor shall identify the anticipated direct and indirect infrastructure impacts of the Project, giving a brief synopsis and concrete examples of such impacts, specifically addressing new infrastructure that would be developed and how existing infrastructure was affected. The Contractor shall estimate the impact on the electric power infrastructure development as well as other infrastructure including the number facilities that could potentially accelerate their implementation or expansion plans due to access to more reliable electricity.
- (2) Technology Transfer and Productivity Enhancement: The Contractor shall identify the anticipated advancements in technologies that would be mobilized

through this Project, especially any technologies which would be new to the Nigerian market. The Contractor shall also identify anticipated efficiencies that would be gained as a result of the Project, which may include productivity gains, savings in costs or lower production costs.

- (3) Human Capacity Building: The Contractor shall identify the anticipated number and types of local jobs that will be created as a result of the Project, including temporary and permanent jobs created. The Contractor shall also identify the number of local people who would receive training and the types of training programs required for the Project.
- (4) Market Oriented Reform: The Contractor shall provide a description of any regulations, laws, or institutional changes that are recommended in connection to these Terms of Reference and the effect they would have if implemented.
- (5) Environment: The Contractor shall estimate the potential positive and negative environmental impacts of the Project.
- (6) Other: The Contractor shall identify any other anticipated development impacts that would result from the Project such as any spin-off effects on unrelated economic sectors, impact on governance and transparency, private sector participation, etc.

Task 10 Deliverable: The Contractor shall prepare a report including all work performed under Task 10, including, but not limited to the Contractor's analysis on the impact of the Project on infrastructure, market-oriented reforms, technology transfer and productivity enhancement, human capacity building and environment for the Project. The Task 10 Deliverable shall be included in the Final Report.

Task 11: U.S. Sources of Supply

The Contractor shall develop a detailed list of U.S. companies that could provide equipment, services, and technology to the Project. This shall include at a minimum:

- U.S. companies which can provide technology licenses for the individual components of the facility for the Project;
- Potential U.S. engineering and construction companies which can provide design, engineering, and construction services;
- Potential U.S. service providers including consulting, procurement, construction, legal, and financial services;
- U.S. project management and oversight companies; and
- U.S. suppliers of equipment such as turbines, generators, transformers, switchgears, and controls.
- The identification of technology options for the Project, and the assessment of economic and commercial viability of the Project. These factors shall be based on

the proposed options for the Project including, but not necessarily limited to, the following:

- Captive power supply to the Grantee-owned facilities
- Captive power supply to facilities located on the Grantee-owned land at Flower Gate using a private distribution network
- Captive power supply to facilities, outside of the Grantee-owned facilities, within Flower Gate using a private distribution network
- The evacuation of power to the Ibadan Electricity Distribution Company

The Contractor shall also prepare a detailed list of potential U.S. sources of services that the Grantee may need for the successful technical and commercial operations of the final installations in areas such as operating management, maintenance management, quality control, and marketing assistance where relevant.

These lists shall include (i) the possible U.S. sources of supply and/or services for the Project, (ii) a detailed description of relevant products, solutions and/or services to be provided, and (iii) contact information for the party or parties responsible for marketing/sales in Nigeria. The business name, point of contact, address, telephone number, and e-mail address shall be included for each identified party. The Contractor shall engage relevant potential suppliers in discussions and analyze their interest in supplying equipment and services for the Project. The Contractor shall inform the Grantee of which U.S. suppliers have expressed interest in the Project.

Task 11 Deliverable: The Contractor shall prepare a report including all work performed under Task 11, including, but not limited to the list of potential U.S. sources of supply for the Project. The Task 11 Deliverable shall be included in the Final Report.

Task 12: Implementation & Business Plan

Based on Tasks 1-11, the Contractor shall develop an implementation and business plan of the Project over ten years. The Contractor shall provide the Grantee with the Contractor's recommendations for the Project's implementation and business plan which shall include:

- A recommended schedule for Project implementation, including recommendations for phasing, milestones, and a recommendation as to the order which Project investments should be prioritized;
- A detailed outline of the steps the Grantee will need to take subsequent to the Study's completion and prior to Project implementation, which may include, but are not limited to:
 - Environmental and social impact assessments that comply with local environmental and social requirements and those of multilateral lending agencies such as the World Bank and the African Development Bank;
 - Licensing, permitting, and other relevant legal and regulatory requirements;
 - Financial arrangements;

- Procurements of goods and services;
- Systems integration;
- Power purchase agreements;
- Fuel supply agreements;
- Operations and maintenance;
- Construction requirements;
- Performance testing of equipment; and
- Short- and long-term training requirements.
- An assessment of how the implementation of the Project will impact the Grantee's operations;
- A proposed annual budget requirement for the Project;
- Technical and training needs to implement the Project; and
- Any relevant changes to the Grantee's corporate structure that could bolster the implementation of the Project.

Task 12 Deliverable: The Contractor shall prepare a report including all work performed under Task 12, including, but not limited to the implementation and business plan for the Project. The Task 12 Deliverable shall be included in the Final Report.

Task 13: 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 CD-ROM version of the final report will include:

- Adobe Acrobat readable copies of all documents;
- Source files for all drawings in AutoCAD or Visio format; and
- Source files for all documents in MS Office 2000 or later formats.

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 Honeywell Group Limited (“Client”), dated _____ (“Grant Agreement”). The Client has selected _____ (“Contractor”) to perform the feasibility study (“Study”) for the proposed Flower Gate gas-fired power plant project (“Project”) in Nigeria (“Host Country”). The Client and the Contractor are the parties to this Contract, and they hereinafter are referred to collectively as the “Contract Parties.” 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 S. In addition, in the event of any inconsistency between the Grant Agreement and the Contract or any subcontract thereunder, the Grant Agreement shall be controlling.

B. USTDA as Financier

(1) USTDA Approval of Contract

This Contract, and any amendment thereto, including any amendment to any annex thereto, and any proposed assignment of this Contract, 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 conforms to modifications required by USTDA during the Contract review process and the Contract has been formally approved by USTDA. To make this review in a timely fashion, USTDA must receive from either the Client or the Contractor an English language version of a final negotiated draft Contract or a signed Contract to the attention of the General Counsel's office at USTDA's address listed in Clause M below.

(2) USTDA Not a Party to the Contract

It is understood by the Contract 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 Contract 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 Contract 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 Contract Parties or the parties to any subcontract, jointly or separately; and in consideration of USTDA's role as financier, the Contract Parties further agree that USTDA's rights may be exercised without thereby incurring any responsibility or liability, in contract, tort, or otherwise, to the Contract Parties or the parties to any subcontract. 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 professional services funded by USTDA under the Grant Agreement:

- (a) the Contractor must be a U.S. firm;
- (b) the Contractor may use U.S. subcontractors without limitation;
- (c) employees of U.S. Contractor or U.S. subcontractor firms shall be U.S. citizens, non-U.S. citizens lawfully admitted for permanent residence in the United States or non-U.S. citizens lawfully admitted to work in the United States, except as provided pursuant to subpart (d) below;
- (d) up to twenty percent (20%) of the USTDA Grant amount may be used to pay for services performed by (i) Host Country subcontractors, and/or (ii) Host Country nationals who are employees of the Contractor;
- (e) a Host Country subcontractor may only be used for specific services from the Terms of Reference identified in the subcontract;
- (f) subcontractors from countries other than the United States or Host Country may not be used;
- (g) 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
- (h) 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 period of performance of work provided for by this Contract, 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. Disbursement Procedures

(1) USTDA Approval of Contract

Disbursement of Grant funds will be made only after USTDA approval of this Contract.

(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 approval by USTDA of a Final Report that has been (i) prepared and submitted in accordance with the requirements set forth in Clause I below, and (ii) approved in writing by the Client in the manner provided for by Clause G(3)(b)(iii) 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 Contract Clauses 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 Contract Clauses 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 Contract Clauses 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 the 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 to the attention of the Finance Department at USTDA's address listed in Clause M below, or by e-mail to invoices@ustda.gov.

H. Termination

(1) Method of Termination

Either Contract Party may terminate this Contract upon giving written notice to the other party and USTDA. This notice shall be effective after either 30 days, or any other period set forth elsewhere in this Contract. Furthermore, this Contract shall terminate immediately upon notification of USTDA’s termination of the Grant Agreement or the term of availability of any funds thereunder.

(2) Ramifications of Termination

In the event that this Contract is terminated prior to completion, the Contractor will be eligible, subject to USTDA approval, for payment for the value of the work performed pursuant to the terms of this Contract. 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 value of the work performed pursuant to the terms of this Contract.

(3) Survivability

Clauses B, D, G, H, N and S of the USTDA Mandatory Contract Clauses shall survive the termination of this Contract.

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

and

(b) One (1) hard 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) hard copy of the Public Version of the Final Report to the Commercial or 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, and USTDA's address. 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 address, 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, and e-mail address 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, and e-mail address 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.

(g) The Client, USTDA, and the Commercial and/or Economic Section(s) of the U.S. Embassy in Host Country shall have irrevocable, worldwide, royalty-free, non-exclusive rights to use and distribute the Final Report.

J. Modifications

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

K. Study Schedule

(1) Study Completion Date

The completion date for the Study, which is December 31, 2014, is the date by which the Contract 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) no USTDA funds may be disbursed more than four (4) years after the Effective Date of the Grant Agreement.

L. Business Practices

The Contract Parties recognize the existence of standards of conduct for public officials and commercial entities in their respective countries. Therefore, the Contract Parties shall fully comply with all United States and Host Country laws relating to corruption or bribery. For example, the Contractor and its subcontractors shall fully comply with the

requirements of the Foreign Corrupt Practices Act, as amended (15 U.S.C. §§ 78dd-1 et seq.). Each Contract Party agrees that it shall require that any agent or representative hired to represent it in connection with the Study will comply with this paragraph and all laws which apply to activities and obligations of that Contract Party, including, but not limited to, those laws and obligations referenced 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 14/15 1001
Activity No.:	2014-11018A
Reservation No.:	2014157
Grant No.:	GH201411157

N. 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, except for taxes of a de minimis nature imposed on local lodging, food, transportation, or airport arrivals or departures. Neither the Client nor the Contractor will seek reimbursement from USTDA for taxes, tariffs, duties, fees or other levies, except for taxes of a de minimis nature referenced above.

O. Export Licensing

The Contractor and all subcontractors are responsible for compliance with U.S. export licensing requirements, if applicable, in the performance of the Terms of Reference.

P. Contact Persons

The Client designates the following person as the contact person for matters concerning this Contract:

Name: Mr. Akitoye Ogboye

Title: Team Lead, Power Department
Phone: 234-1-290-0525
E-Mail: Akitoye.Ogboye@honeywellgroup.com

The Contractor designates the following person as the contact person for matters concerning this Contract:

Name:
Title:
Phone:
Fax:
E-Mail:

If anyone designated by a Contract Party as a contact person ceases service as a contact person at any point during the ten-year period following the date of signing of this Contract, the Contract Party that had designated that contact person shall provide USTDA and the other Contract Party with the name and contact information of a replacement contact person.

Q. Liability

This Contract may include a clause that limits the liability of the Contract Parties, provided that such a clause does not (i) disclaim liability for special, incidental, general, or punitive damages, or (ii) limit the total amount of damages recoverable to an amount less than the total amount disbursed to the Contractor pursuant to this Contract.

R. Arbitration

If the Contract Parties submit any dispute arising under this Contract for arbitration, the scope of any such arbitration shall be limited to the Contract Parties' rights and/or obligations under this Contract and may not extend to any right or obligation of USTDA. The arbitrator(s) shall not arbitrate issues directly affecting the rights or obligations of USTDA.

S. Reporting Requirements [*Note: This Clause is not applicable if there is a cost share agreement with the U.S. Contractor.*]

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, fax number, and e-mail address. 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.

T. Cost Share *[Note: This Clause is only applicable if there is a cost share agreement with the U.S. Contractor.]*

The Contractor agrees that, in addition to the funding provided by the USTDA Grant, it shall be responsible for ensuring that it and/or its subcontractors cover at least US\$ _____ of costs to complete the full Terms of Reference as set forth in Annex I to the Grant Agreement and this Contract. In order to receive final payment of USTDA Grant funds, a financial officer of the Contractor must provide a final invoice to USTDA accompanied by a cost share certification and a detailed breakdown of direct labor and/or other direct costs. If such certification and breakdown are not provided or are inaccurate, USTDA shall be entitled to a refund from Contractor of the total amount of the USTDA-disbursed Grant funds.

ANNEX 5

Annex I

Terms of Reference

The purpose of this feasibility study (“Study”) is to evaluate and develop plans in support of Honeywell Group Limited (“Grantee”) for the proposed Flower Gate gas-fired power plant project in Nigeria (“Project”). The Study shall determine a conceptual plant size and configuration that can meet the demands of the Grantee’s food processing plant(s) and cold storage unit(s) at the Flower Gate Industrial Estate in Ogun State, Nigeria (“Flower Gate”). The Study shall also include recommendations regarding the implementation of the proposed mini-grid. The Contractor shall account for the proposed options for the Project including, but not necessarily limited to, the following:

- Captive power supply to the Grantee-owned facilities
- Captive power supply to facilities located on the Grantee-owned land at Flower Gate using a private distribution network
- Captive power supply to facilities, outside of the Grantee-owned facilities, within Flower Gate using a private distribution network
- The evacuation of power to the Ibadan Electricity Distribution Company

The Contractor shall perform the following tasks:

Task 1: Kick-off Meeting and Detailed Work Plan

The Contractor shall travel to Nigeria to meet with the Grantee to (a) review, discuss, and refine overall strategy, scope, objectives, and deliverables of the Study, (b) define and clarify the Grantee’s and Contractor’s roles and responsibilities with respect to the Study, and (c) discuss the Grantee’s short- and long-term objectives for the Project.

The Contractor and the Grantee shall also review the following components of the Study: the Contractor’s approach and methodology for specific tasks under this Terms of Reference; the Contractor’s documentation and project management reporting requirements under this Terms of Reference; and the Contractor’s complete work plan for the Study. The Contractor’s complete work plan shall include all Study activities, milestones, deliverables, and schedule. The Contractor’s detailed work plan for the Study shall be reviewed with the Grantee in a kick-off meeting and the Contractor shall obtain the Grantee’s concurrence on timelines and the work plan for the Study. This work plan shall be used by the Contractor to assess the Study’s progress and accomplishments on a monthly basis and report to the Grantee any deviation or delays from the timeline.

Task 1 Deliverable: The Contractor shall prepare a report including all work performed under Task 1, including, but not limited to detailed work plan including schedule, milestones, and deliverables for the Project. The Task 1 Deliverable shall be included in the Final Report.

Task 2: Market Review & Survey

Subtask 2a: Market Research and Analysis

The Contractor shall analyze the current and projected future power generation in Flower Gate. The Contractor shall analyze how such power generation would affect and be affected by (a) the current and projected future demand and (b) the needs and requirements for a mini-grid for the Project.

The Contractor shall perform market research and analysis to determine the potential offtakers for the Project. The Contractor shall meet and discuss with the representatives of the Grantee; the relevant state agency(ies) responsible for the development of Flower Gate; and potential offtakers, including, but not limited to:

- Existing and operational facilities within Flower Gate;
- Representatives of the Ibadan Electricity Distribution Company; and
- Other prospective offtakers, including the Ogun State government.

In addition, The Contractor shall survey potential offtakers within Flower Gate to determine their respective preferences for self generation and/or the purchase of electricity, heat and/or hot water from a potential independent power producer (IPP). The Contractor shall determine the potential future offtakers' willingness to pay and how much the potential future offtakers would pay for a reliable supply of electricity and/or heat and hot water for 24 hours a day, seven days a week.

Based on the Contractor's market research and analysis, the Contractor shall assess the current and future electric power requirements of the prospective offtakers and when such prospective offtakers would need the power, and make a recommendation to the Grantee as to the current and future market demand for electricity, heat and hot water at Flower Gate.

Subtask 2b: Market Forecast

Based on the market research and analysis performed in Subtask 2a, the Contractor shall prepare a short-term (five-year period) and long-term (ten-year period) market forecast for the Project, including, but not limited to the following components:

- Potential future offtakers; and
- Potential future competitors.

Based on the above market research and analysis performed in Subtask 2a and the market forecast, the Contractor shall provide a recommendation to the Grantee that shall include:

- The scale of facility that should be built for the Project (i.e. MW);
- The type of facility that should be built for the Project (i.e. electricity and/or heat and hot water); and

- An outline of potential customers for the Project.

This information shall be used in Task 5 for sizing the plant capacity and plant configuration (i.e. number of gas turbines, potential expansion of scale (in MW) of plant, development phases, etc.).

Task 2 Deliverable: The Contractor shall prepare a report including all work performed under Task 2, including, but not limited to the current and potential market demand for the Project. The Task 2 Deliverable shall be included in the Final Report.

Task 3: Natural Gas Supply

The Contractor shall determine the current, short-term (five-year period) and long-term (ten-year period) fuel source requirements for the Project. The Contractor shall also establish the trend in natural gas supply and demand in Nigeria and project natural gas prices for the next 20 to 25 years using publically available data sources. The Contractor shall also determine what fuel source is currently available for the Project and the extent such fuel source will meet the requirements of the Project. Based on this information, the Contractor shall provide the Grantee with a list of all relevant gas fuel sources for the Project. The Contractor shall contact prospective gas fuel sources, including, but not limited to, the Nigerian Gas Company.

Based on its data gathering and discussions with relevant stakeholders, the Contractor shall specifically assess the timing and schedule for the construction of the Nigerian Gas Company's natural gas spur pipeline from the main natural gas trunk pipeline ("Escravos-Lagos Gas Pipeline") to the Flower Gate site, as this pipeline could act as a potential source of fuel sources for the Project.

The Contractor shall also assess the availability of potential natural gas fuel sources to meet the projected electricity and/or heat and hot water demand as established in Tasks 1 and 2. The Contractor shall also assess the availability and price of CNG, LNG and other gaseous fuels as back-up or emergency fuel, if necessary, for the Project. If the Contractor determines that back-up or emergency fuel is required for the Project, the Contractor shall recommend to the Grantee the most effective form of back-up or emergency fuel for the Project and the amount of back-up or emergency fuel required for the Project.

Based on this analysis, the Contractor shall recommend to the Grantee a proposed fuel source(s) for the Project. The Contractor shall include this recommendation in a detailed report. The report shall also include projected prices for natural gas and any potential back-up/emergency fuel for a period of 25 years.

Based on the Contractor's findings under this task and earlier Tasks, the Contractor shall deliver a proposed energy pricing strategy to the Grantee that would propose price structures for the proposed offtakers based on the level of demand within Flower Gate

and fuel supply for the Project. The energy pricing strategy shall include a list of potential facilities that could purchase electricity and/or heat and hot water from the Project, the amount required by each facility, and the price that each facility, including the Ibadan Electricity Distribution Company and/or Nigerian Bulk Electricity Trading Plc. (NBET) would be willing to pay.

Task 3 Deliverable: The Contractor shall prepare a report including all work performed under Task 3, including, but not limited to the Contractor's fuel source(s) recommendation(s), projected natural gas prices, and an energy pricing strategy for the Project. The Task 3 Deliverable shall be included in the Final Report.

Task 4: Regulatory Review and Permits

The Contractor shall review the regulatory framework environment and requirements in Nigeria, and the associated impact of such environment and requirements on the electricity tariff for the Project.

The Contractor shall identify and analyze:

- Policy and/or legislative actions that could either act as potential barriers to the implementation of the Project or would be necessary or beneficial for the implementation of the Project;
- All pertinent documents that deal with import taxes, duties and fees, corporate and personal income taxes, and property and other taxes related to the implementation of the Project;
- All permitting requirements, regulations regarding the participation of foreign partners, regulations that impact environmental requirements, and any other regulatory issues that may have a significant impact on the Project, including, but not limited to, reporting on the quality of electricity and/or heat and hot water service and supply standards required by the regulators.

The Contractor shall identify the regulations that could potentially affect the Project and provide the Grantee with options on how to avoid or mitigate any negative effects such regulations may have on the Project.

The Contractor shall also identify any capacity and/or size limitation that may pose an advantage or disadvantage to the Project, and the Contractor shall specifically outline how this may minimize or maximize the permit and/or license requirements.

In addition to the review of power generation regulation(s) in Nigeria, the Contractor shall also review the Nigerian regulatory framework for developing a mini-grid to supply electricity to the Project's potential facility clients (inside and outside of the Flower Gate Industrial Estate) as established in Task 2.

The Contractor shall also develop and recommend an optimal electricity tariff for each of the different classes of customers for power generation and electricity distribution that would be applicable to the Project.

The Contractor shall also identify any permits that may be required for construction and operation of the Project, including, but not limited to water supply/use, heat supply/use, hot water supply/use, wastewater discharge, environmental, and IPP construction and/or operation.

The Contractor shall outline its findings under this task into a regulatory report. The report shall highlight regulatory advantages or barriers that the Project may face within Nigeria. The report shall also include a plan on how the Grantee can avoid, mitigate, or overcome any potential regulatory barrier to the Project.

Task 4 Deliverable: The Contractor shall prepare a report including all work performed under Task 4, including, but not limited to the Contractor's regulatory report for the Project. The Task 4 Deliverable shall be included in the Final Report.

Task 5: Project Scale and Configuration

Based on Tasks 1-4, the Contractor shall determine a conceptual plant size and configuration that meets the immediate and near term (3 to 5 years) needs of the Project. The plant configuration shall take into account any future plant expansion needed to meet the long-term (5 to 10 years) demand within and outside of the Flower Gate Industrial Estate for electric power and heat, hot water, emergency and/or back-up fuel. The Contractor shall prepare a plant layout, process drawings and energy and material balance for the Project as well as a single-line electrical diagram. The Contractor shall also produce a single-line electrical diagram for the mini-grid showing the major electrical equipment for reliable supply of electricity to the Project's existing and future customers. The Contractor shall outline its findings to the Grantee in a report which shall include the Contractor's recommendations for process flows and equipment layout, as well as the single-line electrical diagrams outlining proposed present immediate and near term (3 to 5 years) and long-term (5 to 10 years) configurations for the Project.

Task 5 Deliverable: The Contractor shall prepare a report including all work performed under Task 5, including, but not limited to the Contractor's report on process flows, equipment layout, and proposed configurations for the Project. The Task 5 Deliverable shall be included in the Final Report.

Task 6: Capital and Operating Cost Estimate

Based on Tasks 1-5, the Contractor shall develop capital and operating costs for the Project, and if applicable, include the construction and operation of the mini-grid. The capital and operating costs shall include account for any associated costs for any future expansion per the results of previous Tasks. Based on its findings, the Contractor shall

deliver to the Grantee a report summarizing the overnight capital costs and operating costs and total projected capital costs and operating costs for the Project.

Task 6 Deliverable: The Contractor shall prepare a report including all work performed under Task 6, including, but not limited to the Contractor's report on overnight capital costs and operating costs for the Project. The Task 6 Deliverable shall be included in the Final Report.

Task 7: Financial Analysis

Based on Tasks 1-6, the Contractor shall develop a financial model to analyze the Grantee's internal rate of return (IRR) and a 10 year revenue forecast for the Project, including the development of a mini-grid if applicable. The Contractor's analysis shall include, but not be limited to overnight capital costs, capital costs, annual operating costs, and the projected tariffs (if applicable) as established by the regulator over 15 to 20 years. The model shall estimate potential interest which may be accrued during the construction and allow for the input of estimated project development costs, including, but not limited to technical costs, legal costs, financial service costs. The model shall also allow for the input of escrow amounts and other cost items that may not be included in the overnight capital cost or the annual operating cost as separate cost items. The Contractor shall use the model to estimate the rate of return on equity or IRR before and/or after corporate taxes. The model may assume up to three different sources of debt with varying interest rates and terms. The Contractor shall clearly define and justify any assumption, such as any escalation or inflation rate.

The Contractor shall develop and validate the model, estimate the IRR for a base case and perform sensitivity analyses establishing the sensitivity of IRR to a range of key variables established in consultation with the Grantee which may include, but is not limited to, capital cost, duration of construction, interest rate, natural gas prices, and debt to equity ratio.

The Contractor's financial model shall (i) combine various assumptions regarding expected network revenues, market segment growth, capital expenditures, financial costs and other relevant factors (exclusive of taxation) and (ii) provide a range of financial outcomes as a function of these factors. The financial model shall assess any relevant variables to the Project such as fuel supply sources, including, but not limited to the supply of CNG, LNG, and other gaseous fuels. Using the financial model, the Contractor shall also develop a profitability analysis and shall generate appropriate financial pro formas including an income statement, balance sheet, and cash flow statement, as well as calculations of net present value, the internal rate of return and earnings before interest, taxes, depreciation, and amortization ("EBITDA").

Task 7 Deliverable: The Contractor shall prepare a report including all work performed under Task 7, including, but not limited to the Contractor's financial model for the Project. The Task 7 Deliverable shall be included in the Final Report.

Task 8: Financing Plan

The Contractor shall develop a financing plan and a financing strategy, including several approaches to securing financing for the Project based on discussions with the Grantee and potential lenders and financiers. The Contractor shall outline its rationale for the financing plan and financing strategy and shall take into account factors such as timing, interest rates, potential financing terms, etc. The Contractor shall identify any Project risk factors and develop a risk avoidance/reduction plan for each factor by means of insurance and bonding or other means, adequate to the requirements of the funding sources, including host country sources, multilateral financiers, and others.

Specifically, the Contractor shall identify and analyze potential funding sources for financing the immediate and near term implementation (3 to 5 years) of the Project and proposed expansion of the Project (5 to 10 years) which may include a mini grid. The Contractor's analysis shall include, but not be limited to:

- Internal funds from the Grantee's resources;
- Combination of internal budget funds and private banks, including, but not limited to, local Nigerian private banks;
- Combination of internal budget funds and development financing from international financial institutions such as the Overseas Private Investment Corporation (OPIC) and the International Finance Corporation;
- Combination of the above and export credit financing from the United States Export-Import Bank; and
- Blended financing from debt and equity from a variety of donors.

Based on its findings, the Contractor shall provide a recommendation to the Grantee of the most effective financing sources for the Project.

Task 8 Deliverable: The Contractor shall prepare a report including all work performed under Task 8, including, but not limited to the Contractor's financing plan and a financing strategy. The Task 8 Deliverable shall be included in the Final Report.

Task 9: Preliminary Environmental Impact Assessment

The Contractor shall conduct a preliminary review of the Project's anticipated impact on the environment with reference to local requirements. The preliminary environmental impact assessment shall also consider international standards required by international financial institutions including the World Bank Group and the African Development Bank. The Contractor's review shall identify potential negative impacts, discuss the extent to which they can be mitigated, and develop plans for a full environmental impact assessment needed for the Project. The Contractor shall provide a roadmap that outlines the ways that any potential negative environmental impacts can be mitigated, including the identification of steps that will need to be undertaken by the Grantee prior to Project implementation.

Various sources of fuel can potentially affect the environmental impact assessment. As such, the Contractor shall also assess the advantages and/or disadvantages of utilizing a centralized power plant versus self-generation at each facility including:

- Savings on fuel, including, but not limited to diesel, CNG, LNG and/or natural gas;
- Air emissions reductions, including, but not limited to sulphur oxides (SOx) and nitrogen oxides (NOx), and particulate matter, due to potential higher efficiency and capacity factor of a central plant;
- Level of reduction in carbon emissions due to the higher efficiency and capacity factor of a central plant; and
- Any significant issues related to transportation and storage of CNG, LNG and/or other gaseous fuels.

Task 9 Deliverable: The Contractor shall prepare a report including all work performed under Task 9, including, but not limited to the Contractor's roadmap as to how to mitigate potential negative environmental impacts. The Task 9 Deliverable shall be included in the Final Report.

Task 10: Host Country Development Impacts

The Contractor shall conduct a development impact assessment of the Project. The purpose of the development impact assessment is to provide the Project's decision makers and interested parties with a broader view of the Project's potential effects on Nigeria. The Contractor shall analyze the impact of the Project on infrastructure, market-oriented reforms, technology transfer and productivity, human capacity building and environment. The analysis shall focus on the development impacts that are likely to occur if the Project is implemented according to the Study recommendations. While specific attention shall be paid to the immediate impacts of the Project, the analysis shall also include any development impacts that may result from the Project's implementation, where appropriate, including spin-off and demonstration effects such as the potential for additional captive power projects. In particular, the Contractor shall assess the impact of the Project on:

- (1) Infrastructure: The Contractor shall identify the anticipated direct and indirect infrastructure impacts of the Project, giving a brief synopsis and concrete examples of such impacts, specifically addressing new infrastructure that would be developed and how existing infrastructure was affected. The Contractor shall estimate the impact on the electric power infrastructure development as well as other infrastructure including the number facilities that could potentially accelerate their implementation or expansion plans due to access to more reliable electricity.
- (2) Technology Transfer and Productivity Enhancement: The Contractor shall identify the anticipated advancements in technologies that would be mobilized

through this Project, especially any technologies which would be new to the Nigerian market. The Contractor shall also identify anticipated efficiencies that would be gained as a result of the Project, which may include productivity gains, savings in costs or lower production costs.

- (3) Human Capacity Building: The Contractor shall identify the anticipated number and types of local jobs that will be created as a result of the Project, including temporary and permanent jobs created. The Contractor shall also identify the number of local people who would receive training and the types of training programs required for the Project.
- (4) Market Oriented Reform: The Contractor shall provide a description of any regulations, laws, or institutional changes that are recommended in connection to these Terms of Reference and the effect they would have if implemented.
- (5) Environment: The Contractor shall estimate the potential positive and negative environmental impacts of the Project.
- (6) Other: The Contractor shall identify any other anticipated development impacts that would result from the Project such as any spin-off effects on unrelated economic sectors, impact on governance and transparency, private sector participation, etc.

Task 10 Deliverable: The Contractor shall prepare a report including all work performed under Task 10, including, but not limited to the Contractor's analysis on the impact of the Project on infrastructure, market-oriented reforms, technology transfer and productivity enhancement, human capacity building and environment for the Project. The Task 10 Deliverable shall be included in the Final Report.

Task 11: U.S. Sources of Supply

The Contractor shall develop a detailed list of U.S. companies that could provide equipment, services, and technology to the Project. This shall include at a minimum:

- U.S. companies which can provide technology licenses for the individual components of the facility for the Project;
- Potential U.S. engineering and construction companies which can provide design, engineering, and construction services;
- Potential U.S. service providers including consulting, procurement, construction, legal, and financial services;
- U.S. project management and oversight companies; and
- U.S. suppliers of equipment such as turbines, generators, transformers, switchgears, and controls.
- The identification of technology options for the Project, and the assessment of economic and commercial viability of the Project. These factors shall be based on

the proposed options for the Project including, but not necessarily limited to, the following:

- Captive power supply to the Grantee-owned facilities
- Captive power supply to facilities located on the Grantee-owned land at Flower Gate using a private distribution network
- Captive power supply to facilities, outside of the Grantee-owned facilities, within Flower Gate using a private distribution network
- The evacuation of power to the Ibadan Electricity Distribution Company

The Contractor shall also prepare a detailed list of potential U.S sources of services that the Grantee may need for the successful technical and commercial operations of the final installations in areas such as operating management, maintenance management, quality control, and marketing assistance where relevant.

These lists shall include (i) the possible U.S. sources of supply and/or services for the Project, (ii) a detailed description of relevant products, solutions and/or services to be provided, and (iii) contact information for the party or parties responsible for marketing/sales in Nigeria. The business name, point of contact, address, telephone number, and e-mail address shall be included for each identified party. The Contractor shall engage relevant potential suppliers in discussions and analyze their interest in supplying equipment and services for the Project. The Contractor shall inform the Grantee of which U.S. suppliers have expressed interest in the Project.

Task 11 Deliverable: The Contractor shall prepare a report including all work performed under Task 11, including, but not limited to the list of potential U.S. sources of supply for the Project. The Task 11 Deliverable shall be included in the Final Report.

Task 12: Implementation & Business Plan

Based on Tasks 1-11, the Contractor shall develop an implementation and business plan of the Project over ten years. The Contractor shall provide the Grantee with the Contractor's recommendations for the Project's implementation and business plan which shall include:

- A recommended schedule for Project implementation, including recommendations for phasing, milestones, and a recommendation as to the order which Project investments should be prioritized;
- A detailed outline of the steps the Grantee will need to take subsequent to the Study's completion and prior to Project implementation, which may include, but are not limited to:
 - Environmental and social impact assessments that comply with local environmental and social requirements and those of multilateral lending agencies such as the World Bank and the African Development Bank;
 - Licensing, permitting, and other relevant legal and regulatory requirements;
 - Financial arrangements;

- Procurements of goods and services;
- Systems integration;
- Power purchase agreements;
- Fuel supply agreements;
- Operations and maintenance;
- Construction requirements;
- Performance testing of equipment; and
- Short- and long-term training requirements.
- An assessment of how the implementation of the Project will impact the Grantee's operations;
- A proposed annual budget requirement for the Project;
- Technical and training needs to implement the Project; and
- Any relevant changes to the Grantee's corporate structure that could bolster the implementation of the Project.

Task 12 Deliverable: The Contractor shall prepare a report including all work performed under Task 12, including, but not limited to the implementation and business plan for the Project. The Task 12 Deliverable shall be included in the Final Report.

Task 13: 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 CD-ROM version of the final report will include:

- Adobe Acrobat readable copies of all documents;
- Source files for all drawings in AutoCAD or Visio format; and
- Source files for all documents in MS Office 2000 or later formats.

ANNEX 6



USTDA-Funded Feasibility Study, Technical Assistance, or Training Grant

U.S. Firm Information Form

This form is designed to enable the U.S. Trade and Development Agency ("USTDA") to obtain information about entities and individuals proposed for participation in USTDA-funded activities. Information in this form is used to conduct screening of entities and individuals to ensure compliance with legislative and executive branch prohibitions on providing support or resources to, or engaging in transactions with, certain individuals or entities with which USTDA must comply.

USTDA Activity Number [*To be completed by USTDA*]

Activity Type [<i>To be completed by USTDA</i>]	Feasibility Study	Technical Assistance	Other (specify)
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Activity Title [*To be completed by USTDA*]

Full Legal Name of U.S. Firm

Business Address (street address only)

Telephone		Fax		Website	
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Year Established (include any predecessor company(s) and year(s) established, if appropriate).
Please attach additional pages as necessary.

Type of Ownership	Publicly Traded Company
	Private Company
	Other (please specify)

Please provide a list of directors and principal officers as detailed in Attachment A. Attached? (Not Applicable for U.S. Publicly Traded Company)	Yes
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If Private Company or Other (if applicable), provide a list of shareholders and the percentage of their ownership. In addition, for each shareholder that owns 15% or more shares in U.S. Firm, please complete Attachment B.

Is the U.S. Firm a wholly-owned or partially owned subsidiary?	Yes
	No

If so, please provide the name of the U.S. Firm's parent company(ies). In addition, for any parent identified, please complete Attachment B.

Is the U.S. Firm proposing to subcontract some of the proposed work to another firm?	Yes
	No

If yes, U.S. Firm shall complete Attachment C for each subcontractor. Attached?	Yes
	Not applicable

Project Manager

Name	Surname	
	Given Name	

Address

Telephone

Fax

Email

Negotiation Prerequisites

Discuss any current or anticipated commitments which may impact the ability of the U.S. Firm or its subcontractors to complete the Activity as proposed and reflect such impact within the project schedule.

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

U.S. Firm may attach additional sheets, as necessary.

U.S. Firm's Representations

U.S. Firm shall certify to the following (or provide an explanation as to why any representation cannot be made):

1. U.S. Firm is a [check one] Corporation LLC Partnership Sole Proprietor Other:
 duly organized, validly existing and in good standing under the laws of the State of: .
 The U.S. Firm 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 USTDA Activity. The U.S. Firm is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment or ineligible for the award of contracts by any federal or state governmental agency or authority.
2. The U.S. Firm has included herewith, a copy of its Articles of Incorporation (or equivalent charter or document issued by a designated authority in accordance with applicable laws that provides information and authentication regarding the legal status of an entity) and a Certificate of Good Standing (or equivalent document) issued within 1 month of the date of signature below by the State of: .
 The U.S. Firm commits to notify USTDA and the Grantee if it becomes aware of any change in its status in the state in which it is incorporated. USTDA retains the right to request an updated certificate of good standing. **(U.S. publicly traded companies need not include Articles of Incorporation or Good Standing Certificate)**
3. Neither the U.S. Firm nor any of its principal officers have, within the ten-year period preceding the submission of this proposal, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.
4. Neither the U.S. Firm, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 3 above.
5. There are no federal or state tax liens pending against the assets, property or business of the U.S. Firm. The U.S. Firm, has not, within the three-year period preceding the submission of this proposal, been notified of any delinquent federal or state taxes in an amount that exceeds US\$3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.
6. The U.S. Firm has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself of its debts under any bankruptcy, insolvency or other similar law. The U.S. Firm has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.
7. The U.S. Firm certifies that it complies with USTDA Nationality, Source, and Origin Requirements and shall continue to comply with such requirements throughout the duration of the USTDA-funded activity. The U.S. Firm commits to notify USTDA and the Grantee if it becomes aware of any change which might affect U.S. Firm's ability to meet the USTDA Nationality, Source, and Origin Requirements.

The U.S. Firm shall notify USTDA if any of the representations are no longer true and correct.

U.S. Firm certifies that the information provided in this form is true and correct. U.S. Firm understands and agrees that the U.S. Government may rely on the accuracy of this information in processing a request to participate in a USTDA-funded activity. If at any time USTDA has reason to believe that any person or entity has willfully and knowingly provided incorrect information or made false statements, USTDA may take action under applicable law. The undersigned represents and warrants that he/she has the requisite power and authority to sign on behalf of the U.S. Firm.

Name		Signature	
Title			
Organization		Date	



ATTACHMENT B

USTDA-Funded Feasibility Study, Technical Assistance, or Training Grant

U.S. Firm Information Form – Shareholder(s) and Parent Company(ies)

If applicable, U.S. Firm provided a list of shareholders and the percentage of their ownership. This form shall be completed for each shareholder that owns 15% or more shares in U.S. Firm, as well as any parent corporation of the U.S. Firm (“Shareholder”). In addition, this form shall be completed for each shareholder identified in Attachment B that owns 15% or more shares in any Shareholder, as well as any parent identified in Attachment B.

USTDA Activity Number [To be completed by USTDA]	
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Activity Title [To be completed by USTDA]	
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Full Legal Name of U.S. Firm	
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Full Legal Name of Shareholder	
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Business Address of Shareholder (street address only)	
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Telephone number		Fax Number	
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Year Established (include any predecessor company(s) and year(s) established, if appropriate). Please attach additional pages as necessary.	
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Country of Shareholder’s Principal Place of Business	
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Please provide a list of directors and principal officers as detailed in Attachment A. Attached?	Yes
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Type of Ownership	Publicly Traded Company
	Private Company
	Other

If applicable, provide a list of shareholders and the percentage of their ownership. In addition, for each shareholder that owns 15% or more shares in Shareholder, please complete Attachment B.	
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Is the Shareholder a wholly-owned or partially owned subsidiary?	Yes
	No

If so, please provide the name of the Shareholder’s parent(s). In addition, for any parent identified, please complete Attachment B.	
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Shareholder may attach additional sheets, as necessary.



ATTACHMENT C

USTDA-Funded Feasibility Study, Technical Assistance, or Training Grant

Subcontractor Information Form

This form is designed to enable the U.S. Trade and Development Agency ("USTDA") to obtain information about entities and individuals proposed for participation in USTDA-funded activities. Information in this form is used to conduct screening of entities and individuals to ensure compliance with legislative and executive branch prohibitions on providing support or resources to, or engaging in transactions with, certain individuals or entities with which USTDA must comply.

USTDA Activity Number [*To be completed by USTDA*]

Activity Title [*To be completed by USTDA*]

Full Legal Name of Prime Contractor U.S. Firm ("U.S. Firm")

Full Legal Name of Subcontractor

Business Address of Subcontractor (street address only)

Telephone Number

Fax Number

Year Established (include any predecessor company(s) and year(s) established, if appropriate). Please attach additional pages as necessary.

Subcontractor Point of Contact

Name

Surname

Given Name

Address

Telephone

Fax

Email

Subcontractor's Representations

Subcontractor shall provide the following (or any explanation as to why any representation cannot be made), made as of the date of the proposal:

1. Subcontractor is a <i>[check one]</i>	<input type="checkbox"/> Corporation	<input type="checkbox"/> LLC	<input type="checkbox"/> Partnership	<input type="checkbox"/> Sole Proprietor	<input type="checkbox"/> Other
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duly organized, validly existing and in good standing under the laws of: .

2. The subcontractor has all the requisite corporate power and authority to conduct its business as presently conducted, to participate in this proposal, and if the U.S. Firm is selected, to execute and deliver a subcontract to the U.S. Firm for the performance of the USTDA Activity and to perform the USTDA Activity. The subcontractor is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment or ineligible for the award of contracts by any federal or state governmental agency or authority.
3. Neither the subcontractor nor any of its principal officers have, within the ten-year period preceding the submission of the Offeror's proposal, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.
4. Neither the subcontractor, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 2 above.
5. There are no federal or state tax liens pending against the assets, property or business of the subcontractor. The subcontractor, has not, within the three-year period preceding this RFP, been notified of any delinquent federal or state taxes in an amount that exceeds \$3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.
6. The subcontractor has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law. The subcontractor has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.
7. The Subcontractor certifies that it complies with the USTDA Nationality, Source, and Origin Requirements and shall continue to comply with such requirements throughout the duration of the USTDA-funded activity. The Subcontractor commits to notify USTDA, the Contractor, and the Grantee if it becomes aware of any change which might affect U.S. Firm's ability to meet the USTDA Nationality, Source, and Origin Requirements.

The selected Subcontractor shall notify the U.S. Firm, Grantee and USTDA if any of the representations included in its proposal are no longer true and correct.

Subcontractor certifies that the information provided in this form is true and correct. Subcontractor understands and agrees that the U.S. Government may rely on the accuracy of this information in processing a request to participate in a USTDA-funded activity. If at any time USTDA has reason to believe that any person or entity has willfully and knowingly provided incorrect information or made false statements, USTDA may take action under applicable law. The undersigned represents and warrants that he/she has the requisite power and authority to sign on behalf of the Subcontractor.

Name	<input type="text"/>	Signature	<input type="text"/>
Title	<input type="text"/>		
Organization	<input type="text"/>	Date	<input type="text"/>