

STATEMENT OF WORK

Installation of a new 275KVA 3-Phase FG WILSON Generator in the CDC Generator Shed at the UVRI Campus in Entebbe (June 30, 2015)

CDC UGANDA INSTALLATION OF A NEW 275KVA FG WILSON GENERATOR

C.1 Background and Need

CDC Uganda maintains main offices located in Entebbe at the Uganda Viral Research Institute (UVRI) grounds and in collaboration with UVRI, uses 2 main power sources; the national power (Umeme) and the two 275kva Generators as backup. CDC Uganda recently procured a new Generator of the same capacity to replace one of the existing Generators (Generator 1) due to its malfunctions over the past 12 months. The New Generator was delivered to the CDC premises in Entebbe but it needs to be put in place and connected to the existing circuitry such that the normal Power backup capacity of the Generators is restored.

C.2 Project Objective

The main aim of this Activity is to replace the old Generator 1 with the new Generator at the same location such that the existing configuration of the wiring, Automatic Transfer Switches, Stabilizers and all other accessories is not compromised.

C.3 Scope of Work –

The project will require that the Vendor, with proven Electrical Engineering Skills and experience in Heavy Electrical equipment Wiring and Installations, carries out the tasks outlined below with a view to ensuring acceptable standards and safe installation of the new Generator.

C.4 Technical Requirement

- 1) Conduct a Site-Visit and technical assessment to familiarize with the grounds and establish how best to do the work;
- 2) Establish how to free up space in the Generator House (without interfering with the power supply to the facilities), so as to create enough room to carry out the installation operation.
- 3) Take out the existing Generator 1 safely from its current placement without causing any damage to both the Generator and the connected accessories like Cabling and Fuel inlet/outlet pipelines, etc., as well as the platform on which the Generators sits.

- 4) Assess and establish how best to move the new Generator(which stands considerably taller than the current installed models) into the freed position in (3) above , basing on your expertise and access to the equipment necessary to create modifications on the Generator House required to enable the new generator to be successfully taken inside.
- 5) While effecting the civil works' changes / modifications referred to in (4) above, due Care should be taken to minimize tampering with the Generator Shed Facility super-structure as this may lead to more serious and costly damage to the entire building.
- 6) Once the new Generator is in position, proceed to connect it to the existing Cabling Circuitry while taking care not to compromise the existing structure and assembly of associated equipment in the Generator House.
- 7) Assess and establish whether existing Fuel Supply /Return lines between Generator and Reserve Gravity tank are adequate for reuse with new Generator or not . If the finding is negative then provide for supply and installation of fresh or extra connection to ensure necessary fuel supply to the new Generator.
- 8) Assess and establish whether the existing Cabling, especially the load cable to the Automatic Transfer switch box is adequate for connection to the new Generator or not . If the finding is negative , provide for Supply and installation of a new Load Cable of similar specifications .
- 9) The Vendor shall provide for fresh and /or revised cabling between the new Generator, Main Switch Panels, Automatic Transfer Switches, Control gears; etc. Similarly there could be need for specific accessories pertinent to the works, and the vendor ought to make the necessary provisions as may be dictated by the site conditions .The vendor is advised to ensure uniformity across the circuitry in terms of Cable sizes, color codes, Cable lagging as well as other standards.
- 10) The Vendor shall provide for suitable extension on the Generator exhaust pipe such that all the smoke from the exhaust is expelled to the outside of the house.
- 11) Due to the unusually extended height of the Generator, the engine generated Heat as well as the Exhaust fumes / Smoke are expected to be very close to the roof of the current Shed House . Quite often the Iron sheet roof tends to reflect the heat back to the Generator and this could ultimately affect its cooling process especially when running. The consequence could be Engine overheating and possible breakdown .The Vendor is therefore required to provide for a suitable ducting feature that will safely channel most of Generator emitted heat to the outside of the Shed-house. The extension of the exhaust (to expel smoke) should also be channeled through the heat duct if considered technically feasible.
- 12) The vendor shall repair, fix and /or make good of any damages resulting from changes and/or modifications made to the Generator House such that it's structural integrity is not compromised and shall in the above regard carry out, to logical conclusion, any masonry, Electrical, Plumbing, Painting or any other Civil works deemed necessary to fix effects of the said changes /modifications created during the Generator installation. This is aimed at ensuring that at the end of the Installation works the Generator House is restored to its original state.
- 13) After installations, the Vendor shall conduct pre-commissioning tests in presence of the CDC technical team .The tests shall include ensuring that the Generator Auto-start / stop

features ,Panel Functional displays, Alarm systems alerts, etcetera; are all operating efficiently.
C.5 Reporting schedule
The Contractor shall report directly to the CDC Activity Manager for this activity for purposes of pre-proposal inspection, SOW-clarification, Work execution, pre hand-over Inspections and any related technical activities.
C.6 <u>Special Considerations</u> - (Information that does not fit neatly or logically into one of the other sections. For example, it may be used to explain any special relationships between the contractor and other contractors working for the government.)
<ol style="list-style-type: none"> 1. The Contract activities shall be carried out within minimum if any, disruption of the activities of Facilities like offices and or work areas. 2. Evaluation criteria will be based on: <ul style="list-style-type: none"> o adherence to the SOW o technical drawings illustrating Installation design specifications o Proof of similar works done before
C.7 <u>Government Furnished Property</u>
No government property will be provided for this requirement – the contractor shall provide all material and equipment to deliver a turn-key solution.
C.8 <u>References</u>
Provide a company profile/proof that highlights similar works completed successfully
<u>Deliverables</u>
Once a contractor is selected and an agreed upon projected timeline is confirmed, the contractor will deliver the products and install within the specified agreed dates