

UNHCR Pre-design Power Solutions

Bidders Conference
10 August 2022



Greening and
Sustainability
Team

Introduction

- UNHCR operates approximately **540 offices** in **146 countries** and **7 regions** (Americas, Asia & the Pacific, East Horn & Great Lakes, Europe, MENA, Southern Africa, West & Central Africa).
- UNHCR is committed to improve its environmental performance, climate compatibility and resource efficiency by reducing its use of fossil fuels, purchasing green energy from reliable suppliers
- UNHCR's compounds, premises, and offices generate greenhouse gas emissions amounting to an estimated 47,129 tons of CO₂ annually, most of which is linked to diesel generator usage
- Converting these compounds to solar energy could have both a positive carbon impact and a positive financial impact since solar energy is expected to be cheaper than existing diesel/fossil fuel generation in many geographies.

Agenda



- 01** Introduction to UNHCR Pre-designed Power Solutions
- 02** Systems architectures and purposes
- 03** Key aspects of the RFP
- 04** Questions & Answers

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01 Introduction to UNHCR Pre-designed Power Solutions

02 Systems architectures and purposes

03 Key aspects of the RFP

04 Questions & Answers

UNHCR's Pre-designed Solutions Objectives

The catalogue of pre-designed power systems is designed and premised on the need to supply, install and service “**plug and play**” renewable energy systems to offices that do not meet the Greening and Sustainability team’s threshold for the long-term offtake approach.

Objectives:

1. Contribute to moderately reducing the CO2 emissions of these smaller offices over the medium term.
2. Improve the speed of roll out of renewable energy systems.
3. Simplify the contracting requirements of installation.
4. Ensuring quality that last at least 5 years and quality services.
5. Reduce resourcing requirements for energy assessments and systems designs.

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System architectures and purposes

Full Hybrid

- (grid) + PV + batteries + hybrid inverter + back-up genset.
- Adapted for off-grid offices or connected to a dirty and/or unreliable grid.



PV only

- grid + PV + grid-tie inverter + back-up genset.
- Adapted for offices connected to a dirty but reliable grid.



Battery only

- grid + battery bank + bi-directional inverter + back-up genset
or
UPS + grid + back-up genset
- Adapted for countries with a clean but unreliable grid



- System size ranging from 5, 15 and up to 150 kW with 15 kW increments (inverter capacity at an operating temperature of min 50 degrees C.)
- They shall be modular and expandable
- Back-up gensets are already installed and must be integrated

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03 **Key aspects of the RFP**

04 Questions & Answers

Key aspects of the RFP

Summary

- Centralised purchase that includes after sales service
- 22 Countries in 7 regions
- Approx. 300 Systems
- Expanding other countries in the future
- Interest from other UN agencies to utilize this LTA in their operations

Dates

Upcoming key dates, as per issued RFP:

Proposal Clarification Questions

19 August 2022 @23:59 hrs. Geneva time.

Submission deadline

31 August 2022 @23:59 hrs. Geneva time.

Bid Evaluation

Separate evaluation: Technical (70% of total score) and Financial (30%)

Weighting	Description of technical returnable
10%	Capacity to contract and respond to the BOQ
60%	Conformity of proposed components of the proposed system to the functional specifications: <ul style="list-style-type: none">- Proposed Pre-designed power solution: technical quality and methodology (32%)- Case scenarios with three fully designed power solutions, approach and implementation plan (28%)

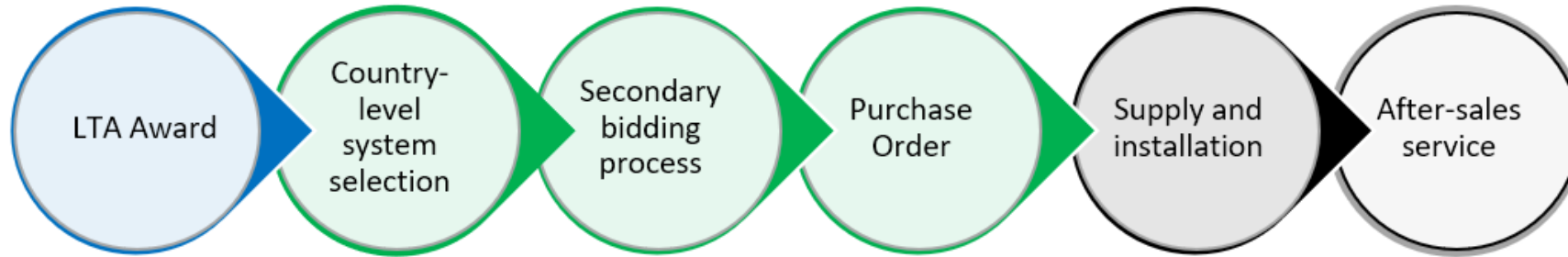
1st Bidding

- General systems design and architecture proposed by bidders. These are considered "**pre-designed**" systems. For example: PV & battery capacity are proposed for each system size at this stage.
- General **ex-work** pricing for core and optional/variable items is provided in the financial offer
- Optional/variable items are on the type of mounting structure (ground, rooftop, carport); powerhouse (container, enclosure); and cabling.
- Different suppliers will be selected for the same system at the end of the 1st bidding stage and will sign a LTA (framework agreement) with UNHCR

2nd Bidding

- Pre-designed system picked up by UNHCR energy team from the list of different suppliers.
- Site visit by the supplier if necessary
- At that stage, Bidders will propose a fully designed power solution using the site-specific information provided
- Bidders will quote for the supply component (transportation, etc.), installation and training, and after-sales services

Procurement process



A maximum of five entities may be awarded a LTA (This RFP outcome)



LTA holders will be invited to participate in country specific secondary bidding resulting in a Purchase Order (the next phase)



Bidder contractual responsibilities

Responsibility matrix

	UNHCR	Supplier
Land provision and access	X	
Permits, licensing and regulatory approvals*	X	X
System selection	X	
Financing	X	
Shipping and logistics	Country office support	X
Installation		X
After-sales support		X
Asset management	X	
Decommissioning	X	

*Supplier is responsible for all construction related permitting whilst UNHCR is responsible for all ownership related permitting.

After-Sales Services

- The After-Sales Services requirements will be defined/finalized during the 2nd bidding stage as per the specific offices constraints and needs
- Communication to UNHCR will be centralized at all time (during operating time and times of failure)
- A list of minimal preventive maintenance tasks and their frequency of execution will be provided at that stage
- What happens if something break? A manual changeover switch will be provided to bypass the pre-design power system and connect to the pre-existing diesel generator
- Three types of failure are listed in the Annex B; and two levels of responses.

Corrigendum

- On page 10 and 11 of 52 of the Annex B Technical Specifications, "HSPS" should be read as "HRES"
- In the Annex E. VI BOQ and Annex F Bidders are requested to provide the design of a 75 kW HRES system whereas in the Annex B Technical Specifications a 60 kW HRES system is requested. The final capacity requested for this design is 60 kW
- Annex E.I does not mention the system capacities for the GPV and BESS (Line 24 and 32), for which Bidders shall provide a full design. These are the same than for the HRES: 15, 60 and 150 kW
- In the annex E.VI and in the BESS section there is a line for "Charge regulators (MPPT) and protections - DC coupling" (line 96). This is a mistake; BESS will not be connected to any PV plant.
- In the Annex A – 2.4 Responsibility matrix. Asset management and decommissioning are set as being the Supplier's responsibility whereas it will only be UNHCR's responsibility

Addendum

RETScreen Expert

UNHCR has started using RETScreen Expert (<https://www.nrcan.gc.ca/maps-tools-and-publications/tools/modelling-tools/retscreen/7465>) since this tender was floated. This software is used to manage its energy data; and for Measurement and Verification purposes.

As an additional layer to the specifications under Annex B – 2.9 Monitoring and metering Systems, UNHCR would like to encourage Bidders to provide meters which are already compatible with RETScreen Expert, or that could easily be using an API. Such meters will not replace the needs for SCADA systems.

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Questions (1/3)

1. Is it possible to have a deadline extension?
 - Yes, it has been extended to 31 August 2022 @23:59 hrs. Geneva time
2. Can kVA unit be considered for the inverters?
 - The inverter nominal capacities are requested (for the three different systems: HRES, GPV and BESS) in kW. Therefore, consider the kW capacity as minimum. So, if your hybrid inverter capacity is in kVA with a $\cos \phi = 0,8$ just make sure that its capacity in kW responds to the minimum requested for each system size
3. Can the requested manufacturer's guarantee for the rooftop mounting structure be decreased to 10 years?
 - Manufacturer's guarantee: ≥ 15 years for the structural integrity and corrosion; and ≥ 5 years for the leakages
4. How was the pass height calculated at 5 meters for the elevated structure?
 - The 5 meters pass height has indeed be determined assuming the mounting structure will be built above a ground floor building. This heigh must be considered in the present tender but will be slightly adjusted on a case by case basis during the secondary bidding stage.

Questions (2/3)

5. How long am I expected to provide after sales service for?
 - Section 3.3 of Annex B states that AS service will be provided for 5 years with an option to extend.
6. What is the destination to be considered to calculate the shipping cost for the case Scenario 1, 2 & 3?
 - "In Section 7, Bidders are requested to provide three fully designed power solutions and the complete project package, as per Section 3 Project Life Cycle, and Section 5 After-Sales Services for three hypothetical offices hypothetically situated in Kakuma, Kenya."
7. If I am not shortlisted in the first round, will I get another opportunity to bid in future?
 - Yes
8. On the second bidding, what criteria will be used to pick from the list of different suppliers?
 - Price
9. If the site visit is necessary, who will pay for it? If the bidder, is this reimbursable?
 - The bidder is responsible for costs associated with travel for secondary bidding.

Questions (3/3)

10. Will the future LTA holders be able to adjust their ex-work prices in the future?

- "The solutions will facilitate the objectives through establishing benchmark prices of pre-designed energy systems. However, to account for potential price fluctuations associated with the cost of manufacturing, general market trends and country specific requirements, the Supplier may be offered the opportunity to request price changes, whenever necessary and duly supported by relevant market index."

11. *How many entities will be awarded a LTA?*

- *UNHCR intends to award these Framework Agreement(s)/LTA's to a maximum of five (5) suppliers, however, should there be a need to engage in additional agreements in order to ensure global coverage, additional Framework Agreement(s)/LTAs may be entered into.*

Any other questions?

Thank you