

**Term of References (TOR) for installation of RI HCF Electrical Energy Solar Panel****Introduction:**

“Relief International is an international non-profit organization that partners with communities impacted by conflict, climate change and disaster to save lives, build greater resilience and promote long-term health and wellbeing. We work in 15 countries across Africa, Asia, and the Middle East, providing Health and Nutrition, WASH (Water, Sanitation, and Hygiene), Education and Livelihoods programming that creates the foundation for community resilience.”

**Overview of the Situation and Needs:**

Access to electricity through a solar power system at the health facility level in the Blue Nile region is not just an infrastructure improvement—it is a life-saving necessity. Many health facilities in the region operate in remote, off-grid areas where power outages or complete lack of electricity severely hinder the delivery of essential health services. A reliable solar energy system ensures continuous power supply for critical functions such as running cold chain equipment to store vaccines and medicines, operating diagnostic tools, lighting delivery and emergency rooms at night, and charging communication devices for timely referrals and coordination.

Moreover, solar energy enhances staff working conditions, improves patient safety, and supports longer operating hours, allowing health workers to provide quality care even during emergencies. In a fragile context like Blue Nile, where access and logistics are often constrained, solar-powered health facilities represent a sustainable, cost-effective solution that directly contributes to better health outcomes and resilience of the health system.

**Scope of work:**

This work includes the supply, installation, testing, warranty and all accessories necessary for the installation of the solar panels, including the supporting frame.

The scope of works shall include:

- To characterize and quantify energy loads/requirements for the solar panel.
- To identify, design an appropriate Solar Panels technology which meets energy requirement to run the essential equipment's such as diagnostic tools, lighting delivery and emergency rooms at night.
- Explore the most appropriate solar panels with cost effective option for the supply to meet the power demands in the Health Care Facility HCF.
- To supply and install the appropriate design Capacity of the Solar Panels.
- To test and commission the installed solar technology.
- Transport of equipment and structural parts to the sites.
- Installation of the control unit, change-over switch, cable connections between pump, controller and the solar modules.
- Full testing and commissioning of completed installation.
- The system should be of high quality and designed for use in remote locations.
- The bidder should outline the key design elements that make the solution suitable for the environment it will be installed in.

**Relief International, Sudan Country Office- Blue Nile Area**

**Electrical load details:**

The Electrical load details included in the attached BOQs.