

Tender 79/2025

Tender Title: Turnkey Design, Supply, Installation, Testing, and Commissioning of a 500 kWAC On-Grid Solar PV System at the JPRC Zarqa Refinery Site.

1. Tender Overview:

JPRC invites qualified and experienced contractors to execute a turnkey project for a **500 kWAC grid-connected solar photovoltaic (PV) power plant**. The plant will be constructed as a **carport structure** within the refinery premises in Zarqa and will be interconnected with the site's internal electrical distribution network.

2. Project Scope (Turnkey):

The selected contractor will be responsible for a complete end-to-end solution, including but not limited to:

- **Full Design & Engineering:** Feasibility study, detailed design, and securing all necessary permits and approvals (including JEA and Municipality).
- **Supply & Installation:** Procurement and installation of all system components.
- **Civil & Structural Works:** Construction of a carport structure with foundations and a dedicated, reinforced concrete inverter room.
- **Electrical Works:** Installation of the PV array, inverters, cabling, protection devices, and grid interconnection.
- **Testing & Commissioning:** Comprehensive testing, commissioning, and a 30-day continuous test run.
- **Training & Handover:** Provision of full O&M manuals, as-built drawings, and training for JPRC personnel.

3. Key Components:

The contractor will supply a complete system, which includes as a minimum:

- Solar PV Modules (A portion will be supplied by JPRC; contractor responsible for integration).
- Module Mounting Structures (Carport).
- Grid-Tied Inverters.
- DC/AC Combiner and Distribution Boards.
- Cabling, Earthing, and Lightning Protection Systems.
- Monitoring and Data Acquisition System (SCADA integration required).
- Watertight, thermally insulated inverter room.

4. Essential Contractor Qualifications:

Interested bidders must demonstrate:

- **Proven Experience:** Minimum of **five (5) successfully executed grid-connected PV projects** of 500 kWac or larger within the last seven (7) years.
- **Specialized Subcontractors:** Steel structure works must be executed by a sub-contractor classified as **Third Grade in Steel Structures** by the Ministry of Public Works and Housing.
- **Financial and Technical Capacity:** Submission of company profile, CVs of key personnel, and list of reference projects.

5. Critical Compliance & Warranty Terms:

- **Warranties:** 5-year workmanship warranty, 10-year inverter warranty, 15-year structure warranty, and 25-year linear performance warranty on modules.
- **Performance Guarantee:** Guaranteed minimum Annual Performance Ratio (PR) of 80% for 5 years.
- **Grid Compliance:** All equipment must be certified and comply with Jordanian grid codes (ENA ER G99).
- **Corrosive Environment:** All external components must be rated for a harsh, corrosive industrial atmosphere (ISA-71.04-2013, Severity Level G3).

Important Notice:

- A **mandatory site visit** is required for all tenderers. The final module installation location and grid connection point will be specified by JPRC during this visit.
- This summary is for pre-qualification purposes only. The full tender package, containing detailed technical specifications and commercial terms, is available for purchase.

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