

RFP No. KREDL/07/2MW<sub>AC</sub> SOLAR WITH 4.5 MWh BESS/EPC/PAVAGADA/RFP/2022-23/ dated 24<sup>th</sup> February 2023

**Request for Proposal (RFP)**  
**for**  
**Selection of Engineering, Procurement and Construction (EPC) Contractor for Design, Engineering, Supply, Construction, Erection, Testing, Commissioning and O&M of 2 MW (AC) Solar PV Power Plant (2.2MWp DC) 4.5 MWh Battery Energy Storage System having 12 years Plant O&M at Pavagada Ultra Mega Solar Park of Tumakuru District in Karnataka**

KARNATAKA RENEWABLE ENERGY DEVELOPMENT LIMITED (KREDL)

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(This document is meant for the exclusive purpose of bidding against this RFP No. KREDL/07/2MW<sub>AC</sub> solar with 4.5 MWh BESS/EPC/PAVAGADA/RFP/2022-23/ dated 24<sup>th</sup> February 2023 and shall not be transferred, reproduced or otherwise used for purposes other than that for which it is specifically issued.)

**RFP consists of the following volumes:**

**1. VOLUME-I**

1. Section I: Notice Inviting Tender (NIT)
2. Section II: Instructions to Bidders (ITB)
3. Section III: Terms and Conditions of Contract (TCC)
4. Section IV: Forms and Procedures

**2. VOLUME-II**

1. Section I: Scope of Work
2. Section II: Technical Specifications
3. Section III: Special Technical Specifications
4. Section IV: Annexures

**3.VOLUME-III: Schedule of Rates/Price Bid**

## **VOLUME-I**

- 1. Section I: Notice Inviting Tender (NIT)**
- 2. Section II: Instructions to Bidders (ITB)**
- 3. Section III: Terms and Conditions of Contract (TCC)**
- 4. Section IV: Forms and Procedures**

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## 1. Section I: Notice Inviting Tender (NIT)

### 1.1. Abridged NIT

**Type of bidding:** National Competitive Bidding (NCB)

**Mode of bidding:** Short Term, Open Tender, Single Stage Two Envelope

KREDL is the Nodal Agency for facilitating and implementing the Renewable Energy projects in Karnataka. Short Term RFP is published and Bids are invited for selection of Engineering, Procurement and Construction (EPC) Contractor for design, engineering, supply, construction, erection, testing, commissioning and O&M of 2 MW (AC) Solar PV Power Plant (2.2MWp DC) with 4.5 MWh Battery Energy Storage System (excluding all variants of lead acid batteries) having 12 years Plant O&M at Pavagada Ultra Mega Solar Park of Tumakuru District in Karnataka.

Bidders are requested to contact e-procurement, GoK portal for registration (Contact no.: 080-22230960, 080-22234115, eproc help desk + 91-4601 0000, +91 – 6894 8777).

Note: KREDL reserves the right to annul the bidding process and invite fresh Bids without liability or obligation for such invitation and without assigning any reasons.

**Sd.**

**Assistant General Manager (Solar Grid), KREDL**

## 1.2. Detailed NIT

**Type of bidding:** National Competitive Bidding (NCB)

**Mode of bidding:** Short Term, Open Tender, Single Stage Two Envelope

1.2.1. KREDL invites short term online Bids from eligible Bidders on Single Stage Two Envelope basis including submission of **Envelope-I: Techno-Commercial Bid** and **Envelope-II: Price Bid** for development of aforesaid Facilities.

### 1.2.2. **Brief scope of work:**

The overall scope involves in selection of Engineering, Procurement and Construction (EPC) Contractor for Design, Engineering, Supply, Construction, Erection, Testing, Commissioning of 2 MW (AC) Solar PV Power Plant (2.2MWp DC) with 4.5 MWh (excluding all variants of lead acid batteries) Energy Storage System having 12 years Plant O&M including interconnection with KSPDCL substation No.4 at Pavagada Ultra Mega Solar Park of Tumakuru District in Karnataka.

The brief scope of work includes the following:

- 1.2.2.1. Scope of Supply & Work includes all design & engineering, procurement & supply of equipment and materials, testing at manufacturers works, multi – level inspections, packing and forwarding, loading, supply, receipt, unloading and storage at site, associated civil works, services, permits, licenses, installation and incidentals, insurance at all stages, erection, testing and commissioning of a total of 2MW (AC) Grid Interactive Solar PV Power Plant with (2.2MWp DC) along with 4.5 MWh Battery Energy Storage System (BESS) excluding all variants of lead acid batteries, and performance demonstration with associated equipment and materials on turnkey basis at Pavagada Ultra Mega Solar Park of Tumakuru District in Karnataka along with 12 (Twelve) years comprehensive operation and maintenance from the date of Operational Acceptance.
- 1.2.2.2. Design, engineering, procurement, supply, insurance, packing, forwarding, loading, transportation, unloading, storage, construction, installation, erection, testing, commissioning and operational acceptance of the Facilities having all Plant and Equipment and their Installation Services along with its associated auxiliaries including all solar photovoltaic modules, BESS, inverters, module mounting structures, string combiner boxes, inverter transformers, HT panels, metering infrastructure, auxiliary transformer, control room, gantry tower, potential transformer, current transformer, vacuum circuit breaker, lightening arrester etc., single circuit 33 kV underground cables including provision of any cable tray support structures along the road side from the solar plant with BESS to the 220/ 33 kV KSPDCL pooling substation, bay area at 220/33 kV KSPDCL pooling substation, AC components, DC components, tools/ tackles and all the other assets, buildings, structures, machinery, facilities and related assets thereof.
- 1.2.2.3. Supply of components with respect to termination of UG cable at 220/33Kv substation along with laying of 33kv UG cable for 1.5KMs from plant to existing 33kv Terminal Bay by adding additional 33 KV bay with metering at 220/33kV Sub- station No. 04, KSPDCL, Pavagada Solar Park.
- 1.2.2.4. Site-grading, cutting, filling, levelling, compacting, clearing of vegetation etc.

- 1.2.2.5. Design and construction of foundation and module mounting structures for placing solar photovoltaic modules.
- 1.2.2.6. Providing power supply and water supply during construction period.
- 1.2.2.7. Construction of pre-engineered type outdoor inverter room with power conditioning units associated with LT and HT switchgear for central inverter, as required.
- 1.2.2.8. Construction of central monitoring and control station with switchgear room, supervisory control and data acquisition (SCADA) room, storeroom, battery room with all electrical fitting, office furniture, fencing of solar PV plant, BESS, watch towers, security cabin etc. in line with the provisions of SRPC/CERC from time to time.
- 1.2.2.9. All associated electrical and civil works required for interfacing with grid including but not limited to establishing inverter transformers, breakers, isolators, panels, protection system, cables, metering at interconnection voltage level of 33kV, earthing of transformer etc. and evacuation of power to the assigned 33/220 kV KSPDCL pooling substation through single circuit 33 kV underground cables including provision of any cable tray support structures along the road side from the solar plant to the 220/ 33 kV KSPDCL pooling substation and bay area at 220/33 kV KSPDCL pooling substation.
- 1.2.2.10. Water supply for cleaning of solar PV modules including supply and installation of water based cleaning system during the construction period and thereafter during O&M Period of 12 (Twelve) years from the date of Operational Acceptance of the Facilities.
- 1.2.2.11. Construction of internal roads, pathways, fencing, peripheral boundary compound wall, storm water drains, drainage system, watch towers, weather monitoring stations, firefighting system, module cleaning system, necessary IT security system, surveillance system with camera and lighting system.
- 1.2.2.12. SCADA system for remote monitoring and control of inverters and BESS excluding all variants of lead acid batteries with all associated hardware and software.
- 1.2.2.13. Operation & Maintenance (O&M) of Facilities along with electrical equipment, consumables, any spares for a period of 12 (Twelve) years from the date of Facility Acceptance.
- 1.2.2.14. Supply of Mandatory Spares.
- 1.2.2.15. The Contractor, at its own cost, shall bear all Statutory charges for obtaining all statutory approvals except the statutory charges to be paid by KREDL to KSPDCL.
- 1.2.2.16. Obtaining all required approvals from CTU like LTOA and connectivity approvals for interconnecting this 2MW BESS project with 400/220kV PGCIL substation shall vest with contractor. The solar PV plant along with BESS (excluding all variants of lead acid batteries) system should comply with regulations/instructions issued by CERC, KERC, CEA, SRPC, POSOCO, Grid India from time to time.



The detailed scope of work is as defined in the relevant clauses of this RFP.

- 1.2.3. Detailed Technical Specification, Scope of Work and Terms & Conditions are given in this RFP, which are available in e-procurement, GoK portal, as amended from time to time.
- 1.2.4. Prospective Bidders are compulsorily required to provide GST, TIN, PAN and PF details at the time of submission of Bids.
- 1.2.5. All Bids must be accompanied by original Cost of RFP, Bid Security and Power of Attorney for an amount as stipulated in the RFP. It can be noted that GST shall be applicable on the Cost of RFP.

ANY BID NOT ACCOMPANIED BY AN ACCEPTABLE COST OF RFP, BID SECURITY AND POWER OF ATTORNEY IN A SEPARATE SEALED ENVELOPE SHALL BE REJECTED BY KREDL AS BEING NON RESPONSIVE AND RETURNED TO THE BIDDER WITHOUT BEING OPENED.

1.2.6. **Qualifying Requirements (QR) for Bidders:**

In addition to the requirements stipulated under section Instruction to Bidders (ITB), the Bidder should also meet the Qualifying Requirements stipulated hereunder in Detailed NIT clause 1.2.6.2 (Technical Eligibility Criteria) and Detailed NIT clause 1.2.6.3 (Financial Eligibility Criteria).

1.2.6.1. **General criteria**

- 1.2.6.1.1. The Bidder should be a body incorporated in India under the Companies Act, 1956 or 2013 including any amendment thereto, engaged in the business of power/ energy/ renewable energy/ solar PV plant development/ construction of solar PV plant/energy storage. In this regard, a copy of Certificate of Incorporation, Income tax returns, Memorandum of Association (MOA) and Article of Association (AOA) shall be furnished along with the Bid in support of above. The MOA and AOA shall highlight the provisions relating to construction or generation or sale of power/ energy/ renewable energy/ solar PV plant development. In case of consortium, the members of the consortium can collectively meet the Qualification Requirement (as mentioned in Clause 1.2.6.2 for meeting Technical Eligibility Criteria and Clause 1.2.6.3 for meeting Financial Eligibility Criteria) and number of members in a Consortium would be limited to 03 (three) including the Lead Bidder. It is clarified that Partnership Firms, LLP and LLC are not eligible to participate in this Bid.

The Sole Bidder/Consortium partner may seek qualification based on technical and/or financial capability of its Parent(s) and/ or its Subsidiaries/Affiliate(s) for the purpose of meeting the technical/financial qualification requirements. Authorization for use of such financial capability shall have to be provided from its Parent(s) and/or Subsidiaries/Affiliate(s).

- 1.2.6.1.2. A Bidder is eligible to submit Bids for developing the Facilities with solar PV technology along with BESS as mentioned in the Volume