

Tender specification no. KREDL/07/200MW/EPC/PAVAGADA/RFP/2017 dated 11 Nov 2017

**Engineering, Procurement and Construction (EPC) Contractor selection for design, engineering, procurement, supply, construction, erection, testing and commissioning of 4x50 MW (AC) solar photovoltaic (PV) power plant with associated transmission system and comprehensive Operation & Maintenance (O&M) for ten (10) years at Pavagada Ultra Mega Solar Park of Tumakuru District in Karnataka for procurement of solar power by ESCOMs of Karnataka for a period of twenty five (25) years**

KARNATAKA RENEWABLE ENRGY DEVELOPMENT LIMITED (KREDL)

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(This document is meant for the exclusive purpose of bidding against this Tender Specification no. KREDL/07/200MW/EPC/PAVAGADA/RFP/2017-18 dated 11 Nov 2017 and shall not be transferred, reproduced or otherwise used for purposes other than that for which it is specifically issued.)

Selection of Engineering, Procurement and Construction (EPC) contractor for design, engineering, procurement, supply, construction, erection, testing, commissioning of 200 MW (AC) solar photo voltaic (PV) power plant with associated transmission system and comprehensive operation and maintenance for 10 (ten) years at Pavagada Ultra Mega Solar Park of Tumakuru District in Karnataka for procurement of solar power by ESCOMs of Karnataka for a period of 25 years

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# 1. Section II: Notice Inviting Tender (NIT – Short term)

## 1.1. Detailed NIT

**Type of Bidding:** International Competitive Bidding (ICB)

**Mode of bidding:** Open tender, single stage two envelope, e-reverse auction

1.1.1. 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** with ‘**E-Reverse Auction**’ for development of aforesaid Project using PV modules, PV cells and other equipment procured from anywhere in the World.

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

The overall scope involves in selection of Engineering, Procurement and Construction (EPC) Contractor for design, engineering, procurement, supply, construction, erection, testing and commissioning of 4x50 MW (AC) solar photovoltaic (PV) power plant with associated transmission system and comprehensive Operation & Maintenance (O&M) for ten (10) years at Pavagada Ultra Mega Solar Park of Tumakuru District in Karnataka for procurement of solar power by ESCOMs of Karnataka for a period of twenty five (25) years

The scope of work includes the following:

1.1.2.1. Design, engineering, procurement, supply, insurance, packing and forwarding, loading, transportation, unloading, storage, construction, installation, erection, testing and commissioning of the Project.

1.1.2.2. Site-grading, cutting, filling, levelling, compacting, clearing of vegetation etc.

1.1.2.3. Design and construction of foundation and mounting structure for solar PV panels.

1.1.2.4. Providing power supply and water supply during construction period.

1.1.2.5. Construction of pre-engineered type inverter room with power conditioning unit associated with LT and HT switchgear for central inverter.

1.1.2.6. Construction of central monitoring and control station with switchgear room and SCADA room, store room, battery room with all electrical fitting and furniture, fencing of solar PV plant, watch towers, security cabin etc.

1.1.2.7. All associated electrical and civil works required for interfacing with grid including but not limited to establishing two (2) transformers of 66/11 kV per 50 MW (AC) block, breakers, isolators, panels, protection system, cables, metering at interconnection voltage level of 66 kV, earthing of transformer etc. and evacuation of power to the assigned 66/220 kV pooling substation of

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Karnataka Solar Power Development Corporation Limited (KSPDCL) through double circuit 66 kV underground cables including provision of any cable tray support structures along the road side from the 66/ 11 kV proposed substation to the 220/ 66 kV pooling substation of KSPDCL. It is pertinent to mention that the 66/11 kV proposed substation shall be developed by the successful Bidder.

- 1.1.2.8. Water supply for water washing including supply and installation of water washing system during the construction period.
- 1.1.2.9. 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.
- 1.1.2.10. SCADA system for remote monitoring and control of inverters with all associated hardware and software.
- 1.1.2.11. Operation & Maintenance (O&M) of Project along with electrical equipment, consumables and spare parts for a period of ten (10) years from the date of Facility Acceptance.
- 1.1.2.12. Supply of mandatory Spares.

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

- 1.1.3. KREDL intends to finance the Project through own resources and/ or external commercial borrowings.
- 1.1.4. Detailed Technical Specification, Scope of Work and Terms & Conditions are given in this RFP, which are available for examination and sale at the address given below and as per the timelines mentioned in NIT published on 11 Nov 2017, as amended from time to time.
- 1.1.5. Prospective Bidders are compulsorily required to provide GST, TIN, PAN and PF details at the time of submission of Bids.
- 1.1.6. All Bids must be accompanied by Cost of RFP (Application Fee), Facilitation Fee and Bid Security for an amount as stipulated in the RFP. It can be noted that GST shall be applicable on the Cost of RFP (Application Fee) and Facilitation Fee.

**ANY BID NOT ACCOMPANIED BY AN ACCEPTABLE COST OF RFP, APPLICATION FEE AND BID SECURITY IN A SEPARATE SEALED ENVELOPE SHALL BE REJECTED BY KREDL AS BEING NONRESPONSIVE AND RETURNED TO THE BIDDER WITHOUT BEING OPENED.**

### 1.1.7. **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 1.1.7.2 (Technical Eligibility Criteria) and Detailed NIT clause 1.1.7.3 (Financial Eligibility Criteria).

#### 1.1.7.1. **General criteria**

- 1.1.7.1.1. The Bidder should be a body incorporated in India under the Companies Act, 1956 or 2013 or under an equivalent law abroad (in case of foreign Bidders) including any amendment thereto, engaged in the business of power/ energy. In this regard, a copy of Certificate of Incorporation, Income tax returns, Memorandum of Association (MOA) and Article of Association (AOA) or equivalent documents (in case of foreign Bidders) 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.
- 1.1.7.1.2. A Bidder is eligible to submit Bids for developing the Project with solar PV technology. The solar PV ground mount project shall be developed with fixed tilt structure only.
- 1.1.7.1.3. There are four (4) no. of 50 MW (AC) blocks (B-16, B-22, B-39 and B-40 as provided in KSPDCL website) in the 2,000 MW (AC) Pavagada ultra-mega solar park at Pavagada Taluk of Tumakuru District in Karnataka assigned to KREDL as per the Government Order no. EN 19 VSC 2017 dated 07 February 2017. The Bidders are requested to visit the KSPDCL and KREDL website (<http://kspdcl.in/>) to obtain the specific information on the solar park.
- 1.1.7.1.4. No partial capacities shall be allowed and the Bidders are required to quote only in multiples of 50 MW (AC) for the total aggregate capacity of 200 MW (AC). The Bidder shall quote the AC capacity of Project in whole number only.
- 1.1.7.1.5. A Bidder can propose any number of Projects limited to maximum of four (4) Projects, but the capacity of the individual Project proposed by the Bidder shall be minimum of 50 MW (AC), and the maximum aggregate Project capacity proposed by the Bidder shall be limited to 200 MW (AC). However, the maximum capacity to be allotted to any Bidder including its Parent, Ultimate Parent, Affiliate, Group Business Entity (ies) or any other Group Entity(ies) either bidding as Single Bidder

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or as a Consortium shall not exceed the aggregate maximum capacity of 200 MW (AC).

- 1.1.7.1.6. The lowest evaluated successful Bidder shall have the first right to select the blocks from B-16, B-22, B-39 and B-40 of Pavagada solar park for implementation of their project(s).
- 1.1.7.1.7. The Bidder shall provide the interconnection to the allocated substation(s) for each 50 MW (AC) block at the voltage level of 66 kV (Point of Injection) of corresponding 220/ 66 kV KSPDCL substation. All associated electrical and civil works required for interfacing with grid including but not limited to establishing two (2) transformers of 66/11 kV per 50 MW (AC) block, breakers, isolators, panels, protection system, cables, metering at interconnection voltage level of 66 kV, earthing of transformer etc. and evacuation of power to the assigned 66/220 kV pooling substation of Karnataka Solar Power Development Corporation Limited (KSPDCL) through double circuit 66 kV underground cables including provision of any cable tray support structures along the road side from the 66/ 11 kV proposed substation to the 220/ 66 kV pooling substation of KSPDCL. It is pertinent to mention that the 66/11 kV proposed substation shall be developed by the successful Bidder.
- 1.1.7.1.8. Notwithstanding anything to the contrary contained in this NIT, the detailed terms specified in the draft Contract Agreement shall have overriding effect; provided, however, that any conditions or obligations imposed on the Bidder hereunder shall continue to have effect in addition to its obligations under the Contract Agreement.
- 1.1.7.1.9. The Bid should be furnished in the formats mentioned in the RFP which shall be duly signed by the Bidder's authorized signatory.
- 1.1.7.1.10. The Bidder should submit a power of attorney as per the format provided in the RFP authorizing the signatory of the Bidder for signing and submission of the Bid.
- 1.1.7.1.11. Any condition or qualification or any other stipulation contained in the Bid may render the Bid liable to rejection as a non-responsive Bid. The complete Bid shall be without alterations, interlineations or erasures, except those to accord with instructions issued by KREDL, or as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the Bid.

- 1.1.7.1.12. The RFP including annexures, if any, are transmitted to the Bidders solely for the purpose of preparation and the submission of a Bid in accordance herewith. Bidders shall treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their Bid. KREDL will not return any Bid or any information provided along therewith.
- 1.1.7.1.13. The successful Bidder i.e., Contractor, shall ensure submission of PF code number allotted by Regional PF Commissioner along with the Performance Bank Guarantees. Failure to do so is likely to result in the offer being rejected.
- 1.1.7.1.14. Bidder to note that Price Bids of those Bidders shall be opened who are found techno-commercially qualified and are found reasonably responsive to KREDL's tender terms and conditions and scope of work as mentioned in the RFP.

#### 1.1.7.2. **Technical Eligibility Criteria**

- 1.1.7.2.1. The Bidder should have designed, supplied, erected/ supervised erection and commissioned/ supervised commissioning of solar PV based grid connected power plant(s) of cumulative installed capacity of not less than total capacity being bid by the Bidder, out of which at least one (1) plant should have been of installed capacity of at least equal to fifty percent (50%) of the total capacity being bid by the Bidder including completion of development of plant substation of 66 kV/11 kV and above. The reference plant of at least equal to fifty percent (50%) of the total capacity being bid by the Bidder must have been in successful operation for at least six (6) months prior to the date of Techno-Commercial Bid submission.

#### Illustration:

In case the Bidder is bidding for project 1 for 50 MW (AC), project 2 for 50 MW (AC) and project 3 for 50 MW (AC), the cumulative installed capacity should be equal to 150 MW (AC). The capacity for the reference plant shall be 50% of 150 MW (AC), which equals to 75 MW (AC).

#### Notes:

- a. The reference solar PV based grid connected power plant of at least fifty percent (50%) of the total capacity being

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bid by the Bidder should be at a single location, developed by the Bidder anywhere in the World in last five (5) years for itself or any other client. It is pertinent to mention that such reference solar PV plants should have been developed for the requirement of any Government clients, Central/ State Utilities, Public Sector Undertakings (PSU) or equivalent entity (for foreign Bidders) as on the date of Techno-Commercial Bid submission.

- b. Bidder shall submit letter of award, work order, contract agreement, purchase order, commissioning certificate, certificate of successful completion, certificate of successful operation for at least six (6) months prior to the date of Techno-Commercial Bid submission from the owner of the solar PV plant and concerned authorities in order to establish the credentials with respect to QR as stated above.
- c. Projects executed by Bidder's Group Company, Holding Company, Subsidiary Company or Affiliate under the same management as defined in Companies Act, 2013 or under an equivalent law abroad, if it is a foreign company shall not be considered as Bidder's experience for meeting the Technical Eligibility Criteria.
- d. In case the award for the reference works has been received by the Bidder either directly from owner of plant or any other intermediary organization, a certificate from such owner of plant or the intermediary organization shall be required to be furnished by the Bidder along with its Techno-Commercial Bid in support of its claim of meeting requirement stipulated above. Certificate from owner of the plant shall also be furnished by the Bidder for successful operation of the reference plant.
- e. The documentary evidence (certified by Chartered Accountant) for value of executed reference work, name of the client, name of the ultimate user of energy, project arrangement, date for commercial operation date (COD), energy generation in units (kWh) for at least six (6) months prior to the date of opening of Techno-Commercial Bid, capacity of the plant in AC/ DC terms, location (GPS coordinate, village, taluk, district and state) of the plant, shall be submitted by the Bidder along with the Bid.

### 1.1.7.3. **Financial Eligibility Criteria**

- 1.1.7.3.1. The average annual turnover of the Bidder, should not be less than 200 crores INR (Indian Rupees two hundred crores only) or equivalent US\$ per 50 MW (AC) during the preceding five (5) financial years viz. from FY 2012-13 till FY 2016-17 / CY 2013 till CY 2017 (applicable for foreign Bidders only). The average annual turnover shown by the Bidder shall be evaluated based on the total capacity being bid by the Bidder to be considered under “Financial capacity – average annual turnover”. Other income shall not be considered for arriving at calculation of average annual turnover.
- 1.1.7.3.2. In case a Bidder does not satisfy the average annual turnover criteria, stipulated above on its own, its Holding Company would be required to meet the stipulated turnover requirements as above, provided that the Net Worth of such Holding Company as on the last day of the preceding financial year (FY 2016-17) / CY 2017 (applicable for foreign Bidders only) is at least equal to or more than the paid up share capital of the Holding Company. In such an event, the Bidder would be required to furnish along with its Techno-Commercial Bid, a letter of undertaking from the Holding Company, supported by the Holding Company’s Board Resolution, as per the format enclosed in the RFP, pledging unconditional and irrevocable financial support for the execution of the Contract by the Bidder in case of award of the Contract.
- 1.1.7.3.3. The Bidder shall also submit a certificate citing the calculation of average annual turnover as provided in RFP also citing break-up of calculation along with the audited annual accounts for FY 2012-13 till FY 2016-17 / CY 2013 till CY 2017 (applicable for foreign Bidders only).
- 1.1.7.3.4. The Net Worth of the Bidder as on the last day of the preceding financial year FY 2016-17 / CY 2017 (applicable for foreign Bidders only) should not be less than one hundred percent (100%) of the Bidder’s paid up share capital, subject to a minimum of fifty (50) lakhs INR or equivalent US\$ per MW (AC) per annum in proportion to the cumulative capacity proposed to be considered under “Financial Capacity – Net Worth”.
- 1.1.7.3.5. For avoidance of doubt, “Net Worth” as per section 2 (57) of the Companies Act, 2013 or under an equivalent law abroad, if it is a foreign company means the aggregate value of the paid up

share capital and all reserves created out of the profits and securities premium account, after deducting the aggregate value of the accumulated losses, deferred expenditure and miscellaneous expenditure not written off, as per the audited balance sheet, but does not include reserves created out of revaluation of assets, write-back of depreciation and amalgamation.

Illustration: If the proposed cumulative capacity is 100 MW (AC) i.e. project 1 for 50 MW (AC), project 2 for 50 MW (AC); the Net Worth shall be not less than 50 crore INR (Indian Rupees fifty crores only) as on the last day of the preceding financial year FY 2016-17 / CY 2017 (applicable for foreign Bidders only).

- 1.1.7.3.6. In case the Bidder does not satisfy the Net Worth criteria on its own, it can meet the requirement of Net Worth based on the strength of its Subsidiary (ies) and/or Holding Company and/or Subsidiaries of its Holding companies wherever applicable, the Net Worth of the Bidder and its Subsidiary (ies) and/or Holding Company and/or Subsidiary (ies) of the Holding Company, in combined manner should not be less than one hundred percent (100%) of their total paid up share capital. However individually, their Net worth should not be less than seventy five percent (75%) of their respective paid up share capitals.

Net Worth in combined manner shall be calculated as follows:  
Net Worth (combined) =  $(X1+X2+X3) / (Y1+Y2+Y3) \times 100$   
Where X1,X2,X3 are individual Net worth which should not be less than seventy five percent (75%) of the respective paid up share capitals and Y1,Y2,Y3 are individual paid up share capitals.

- 1.1.7.3.7. In case the Bidder is not able to furnish its audited financial statements on standalone entity basis due to unavailability as on the date of Techno-Commercial Bid submission, the unaudited unconsolidated financial statements of the Bidder can be considered acceptable provided the Bidder further furnishes the following documents on substantiation of its qualification:

- a. Copies of the unaudited unconsolidated financial statements of the Bidder along with copies of the audited consolidated financial statements of its Holding Company.
- b. Certificate from the CEO/ CFO of the Holding Company, stating that the unaudited unconsolidated

financial statements form part of the consolidated financial statement of the Holding Company.

- 1.1.7.3.8. In case where audited annual accounts for the required financial years as on date of Techno-Commercial Bid submission are not available, the financial results certified by a practicing Chartered Accountant shall be considered acceptable. In case the Bidder is not able to submit the Certificate from a practicing Chartered Accountant certifying its financial parameters, the audited annual accounts for five (5) consecutive financial years from FY 2011-12 to FY 2015-16/ CY 2012 to CY 2016 (applicable for foreign Bidders only) of the preceding financial year FY 2016-17 / CY 2017 (applicable for foreign Bidders only) shall be considered for evaluating financial parameters. Further, a certificate would be required from the CEO/CFO stating that the financial results of the company are under audit as on the date of Techno-Commercial Bid submission and the Certificate from a practicing Chartered Accountant certifying that the audited annual accounts for FY 2016-17/ CY 2017 (applicable for foreign Bidders) are not available as on the date of Techno-Commercial Bid submission.
- 1.1.7.3.9. The Bidder shall also submit a certificate citing the calculation of Net Worth as provided in RFP also citing break-up of calculation along with the audited annual accounts for FY 2016-17 / CY 2017 (applicable for foreign Bidders only).
- 1.1.7.3.10. In case of a Consortium, for the computation of Financial Capacity, the Net Worth of all the members of the Consortium would be aggregated. In computing the Net Worth of the Single Business Entity/ Consortium Members, the Net Worth of their respective Group Business Entities would also be eligible hereunder.
- 1.1.7.3.11. In case a Bidder is found not having the minimum Financial Capacity covering average annual turnover and Net Worth for the Project(s) for which the Bid(s) have been submitted, KREDL shall have the right to reject such Bid(s).
- 1.1.7.3.12. For the purpose of ascertaining qualification, the Financial Eligibility Criteria of group business entity (“Group Business Entities”) can also be submitted by the Bidder in addition to its own Financial Capacity. The Financial Capacity would be summation of the Financial Capacity of the Bidder and the Group Business Entities. For the purpose of this RFP, a Group Business Entity shall mean;

- a. A Business Entity, which directly or indirectly holds not less than twenty six percent (26%) of voting securities in the Bidder; or
- b. A Business Entity in which the Bidder directly or indirectly holds not less than twenty six percent (26%) of voting securities.
- c. For the purposes of meeting financial requirements, only unconsolidated audited annual accounts shall be used. However, audited consolidated annual accounts of the Bidder may be used for the purpose of financial requirements provided the Bidder has at least twenty six percent (26%) equity in each Company whose accounts are merged in the audited consolidated account and provided further that the financial capability of such Companies (of which accounts are being merged in the consolidated accounts) shall not be considered again for the purpose of evaluation of any other Bid.
- d. The Group Business Entity shall be a Company incorporated under the Companies Act 1956/ 2013 or under an equivalent law abroad, if it is a foreign company.
- e. The details of Group Business Entities must also be provided as per the format provided in the RFP.
- f. Financial capacity shall cover both average annual turnover and Net Worth.

1.1.7.3.13. The Bidder shall provide a copy each of audited annual accounts of previous five (5) financial year from FY 2012-13 till FY 2016-17 / CY 2013 till CY 2017 (applicable for foreign Bidders only) for ascertaining their turnover and Net Worth for the purpose of verification.

1.1.7.3.14. For Turnover and Net Worth indicated in foreign currency, the exchange rate as on seven (7) Days prior to the date of Techno-Commercial bid opening shall be used as per the exchange rate published in Reserve Bank of India (RBI) website.

1.1.7.4. KREDL reserves the right to reject any or all Bids or cancel/ withdraw the Invitation for Bids without assigning any reason whatsoever and in such case no Bidder / intending Bidder shall have any claim arising out of such action.

1.1.7.5. A complete set of RFP may be downloaded by any interested Bidder on payment of the Cost of the RFP (Application Fee) (non-refundable) as mentioned above in the form of a crossed account payee demand draft in favour of “Karnataka Renewable Energy Development Limited”, payable at Bengaluru or through online payment through demand draft/ net banking/ debit card/ credit card in the TCIL e-procurement portal.

Note: No hard copy of RFP shall be issued to any Bidder.

1.1.7.6. Issuance of RFP to any Bidder shall not construe that such Bidder is considered to be qualified. Bids shall be submitted online. Bidder shall furnish Cost of RFP (non-refundable), Facilitation Fee, Bid Security and Power of Attorney separately offline as detailed in Bidding at the address of communication.

1.1.7.7. Documents before the stipulated Bid submission closing date and time at the address given below in the address of communication.

1.1.7.8. Transfer of RFP purchased by one intending Bidder to another is not permissible.

1.1.7.9. The RFP providing requisite details about the bidding process will be made available on KREDL website (<http://www.kredlinfo.in>) and TCIL e-procurement website (<https://www.tcil-india-electronictender.com>) on or after 17 Nov 2017. Any queries regarding RFP may be submitted in writing to the address mentioned above. Bidders are requested to contact TCIL e-procurement cell for registration (Contact no: +91 011 2624 1790).

1.1.7.10. Address of communication:

Contact details:

KREDL, Head Office Bangalore

#39, "Shanthigruha" Bharath Scouts & Guides Building,

Palace Road, Bangalore-560001.

Phone: 080-22207851/ 22208109.

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Sd.

**Asst. General Manger (SG), KREDL**