

ODISHA RENEWABLE ENERGY DEVELOPMENT AGENCY Under the Department of Energy Government of Odisha S/59,MANCHESWAR INDUSTRIAL ESTATE BHUBANESWAR-751010, ODISHA Website : www.oredaorissa.com E-mail : ceoreda@oredaorissa.com

Request for Proposal (RFP) for the empanelment of Engineering, Procurement and Construction (EPC) Contractor(s) for design, engineering, supply, installation, testing, commissioning and acceptance of Off-grid Solar PV based Micro Pumping Systems in the state along with Comprehensive Maintenance for five (5) years across Odisha on a rate contract basis.

(SAURA JALANIDHI)

E-procurement Website: www.tenderwizard.com/OREDA RFP no.: 2402/OREDA , dated 22 July 2021 (This page is intentionally left blank)

Notice Inviting Tender (NIT)

NIT no.: 2402/OREDA, dated-22/07/2021

Type of bidding: Domestic Competitive Bidding (DCB)

Mode of bidding: Open bidding, Single stage two envelope, E-bidding

Odisha Renewable Energy Development Agency (OREDA) invites Request for Proposal (RFP) for the empanelment of Engineering, Procurement and Construction (EPC) Contractor(s) for design, engineering, supply, installation, testing, commissioning and acceptance of Off-grid Solar PV based Micro Pumping Systems in the state along with Comprehensive Maintenance for five (5) years across Odisha on a rate contract basis.

The Schedule of Events is given below:

SI. No.	Events	Schedule
1.	Date of publication of Request for Proposal (RFP) on E-	22.07.2021
	procurement Website and OREDA Website	
2.	Due date and time for receipt of pre-bid queries on the RFP	29.07.2021, Time: 1:00 PM
3.	Date and time for the pre-bid meeting through online mode only. Meeting invite link on google hangout platform: [meet.google.com/xjd-zzbf-tpd]	02.08.2021, Time: 11:30 AM
4.	Due date and time for submission of online copies of Technical Bid and Price Bid	16.08.2021, Time: 5:00 PM
5.	Due date and time for submission of hard copies of Technical Bid for select Bid Forms only	17.08.2021, Time: 1:00 PM
6.	Due date and time for the opening of Technical Bid for both online copies and hard copies, except Price Bid	18.08.2021, Time: 3:00 PM
7.	Due date and time for the opening of online Price Bid, applicable only for the Bidders whose Technical Bids shall be responsive	To be intimated later

The RFP providing requisite details about the bidding process shall be made available on the E-procurement Website (<u>www.tenderwizard.com/OREDA</u>) on or before the due date mentioned above. In addition, the RFP shall be provided on the OREDA Website (<u>http://oredaodisha.com/</u>) for viewing purposes only. The Bidders may write to us at the email id<u>ceoreda@oredaorissa.com</u>, at any time during the office hours for any additional information.

The Bidders are also requested to contact the E-procurement Service Provider (M/s. Tender Wizard) for online registration on the E-procurement Website. The Bidders may contact the E-procurement Service Provider at 080-40482000/ 121/ 133/ 140 and +91 70085 21627 at any time during the office hours for any additional information.

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

Chief Executive, OREDA

Disclaimer

To whomsoever it may concern, kindly note the following:

- 1. This RFP is meant for the exclusive purpose of bidding against this RFP No. 2402/OREDA,dated-22 July 2021and shall not be transferred, reproduced, or otherwise used for purposes other than that for which it is specifically issued.
- 2. Though adequate care has been taken for the preparation of this RFP, the Bidder shall satisfy itself that the RFP is complete in all respect. Intimation of any discrepancy shall be given to OREDA immediately. If no intimation is received from any Bidder in their pre-bid queries, it shall be considered that the RFP is complete in all respects and has been accepted by the Bidder.
- 3. OREDA reserves all the right to modify, amend, or supplement this RFP by issuing Addendum from time to time in the interest of the Project.
- 4. OREDA reserves all the right to extend the timelines mentioned in the Schedule of Events of NIT by issuing Corrigendum from time to time in the interest of the Project.
- 5. While the RFP has been prepared in good faith, neither OREDA nor OREDA's employees or advisors make any representation, warranty, express or implied or accept any responsibility or liability, whatsoever, in respect of any statements or omissions or absence herein, or the accuracy, completeness or reliability of the information, and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability, and completeness of this RFP, even if any loss or damage is caused by any act or omission on OREDA's part.

Exhibit

Definitions

The following definition and abbreviation shall have the meanings hereby assigned to them, as mentioned under the description herewith:

Definitions and abbreviation		
annievialiuli	:	Description
AC	:	shall mean Alternating Current
Acceptance	:	shall mean acceptance of the Project and when the Acceptance
		Certificate is issued to the Successful Bidder and as per the meaning
		ascribed to it in SOW Clause 3.2.1.5
Acceptance Certificate	:	shall mean formal acceptance of the Project by OREDA by issuing an
		Acceptance Certificate, as per the meaning ascribed to it in SOW Clause
		3.3.1.5
	:	shall have the meaning ascribed to it in ITB Clause 1.2.3.3
Affiliate	:	shall mean
		in relation to another company means, a company in which that other
		company has a "significant influence".
		"significant influence" means control of at least twenty per cent. of total
		share capital, or of business decisions under an agreement;
Amendment	:	shall have the meaning ascribed to it in GCC Clause 5.1.2
	:	shall mean Article of Association
Applicable Law	÷	shall mean all laws, bye-laws, statutes, treaties, ordinances, rules,
	•	policies, regulations applicable in India and the state of Odisha along
		with amendments, re-enactments, revisions, applications and
		adaptations thereto made from time to time and in force and effect,
		judgments, decrees, injunctions, writs and orders of any court, arbitrator
		or governmental agency or authority, rules, notifications, guidelines,
		circulars, orders and interpretations of any Government orders, court or
		statutory or other body having jurisdiction over the performance of the
		Scope of Work including applicable permits, as may be in effect at the
		time of performance of the Scope of Work, provided, however, that if at
		any time the Applicable Laws are less stringent than the standards set
		forth in the Work Order hereto, the standard set forth in this Work Order
		hereto, shall be deemed to be the standards under Applicable Laws
Authorized Signatory	:	shall mean the authorized signatory of the Bidder as per the power of
		attorney and Board Resolution issued by the Bidder shall mean Assessment Year
AY BDS	:	
Beneficiary	· ·	shall mean Bid Data Sheet
Beneficiary	·	shall mean Individual or Community selected by the OREDA for implementation of project
Bid		shall have the meaning ascribed to it in ITB Clause 1.3.3.1
BIS		shall mean Bureau of Indian Standards
CC	· ·	shall mean Commissioning Certificate
Clarification	· ·	shall have the meaning ascribed to it in ITB Clause 1.2.3
CMC	÷	shall mean Comprehensive Maintenance Contract
	·	shall mean comprehensive maintenance for a period of 5 years from the
CMC Coverage	:	date of commissioning
CMC Manager	:	shall have the meaning ascribed to it in GCC Clause 5.4.1.2
	·	shall mean period of 5 years from the date of signing of acceptance
		certificate, during this period, Successful Bidder shall be responsible for
CMC Period	:	undertake Scheduled Maintenance, Corrective Maintenance, and
		Breakdown Maintenance of the Project.

[
Definitions and	:	Description
abbreviation	-	
Coercive Practice	:	shall have the meaning ascribed to it in ITB Clause 1.1.2
Collusive Practice		shall have the meaning ascribed to it in ITB Clause 1.1.2
Commissioning Report	:	shall have the meaning ascribed to it in Appendix Clause 7.5.3
Commissioning	:	shall have the meaning ascribed to it in SOW Clause 3.2.1.4
Construction Manager	:	shall have the meaning ascribed to it in GCC Clause 5.4.1.2
Corrigendum	:	shall have the meaning ascribed to it in ITB Clause 1.2.3.2
Corrupt Practice	:	shall have the meaning ascribed to it in ITB Clause 1.1.2
CPSU	:	shall mean Central Public Sector Undertaking
CRC	:	shall mean Customer Relationship Centre
Day	:	shall mean the calendar day
DC	:	shall mean Direct Current
DCB	:	shall mean Domestic Competitive Bidding
Defect Liability	:	shall have the meaning ascribed to it in GCC Clause 5.5.3
Defect Liability Period	:	shall have the meaning ascribed to it in GCC Clause 5.5.3
Delay Liquidated Damage	:	shall have the meaning ascribed to it in GCC Clause 5.5.1
Department	:	shall mean the user department for which the Project will be developed
Detailed Workplan	:	shall have the meaning ascribed to it in GCC Clause 5.4.2.2
DSC	:	shall mean Digital Signature Certificate
Effective Date	:	shall mean the date of issuance of the Work Order
Empanelment Order	:	shall have the meaning ascribed to it in ITB Clause 1.6.2
EPC	:	shall mean Engineering, procurement, and construction
E-procurement Service	•	shall mean M/s. Tender Wizard
Provider		
E-procurement Website		shall mean www.tenderwizard.com/OREDA
Equipment	:	shall have the meaning ascribed to it in SOW Clause 3.2.1.2
Estimated Cost		shall mean the estimated cost by OREDA and shall have the meaning
Estimated Cost	•	ascribed to it in ITB Clause 2.1.3
FDR	:	shall mean Fixed Deposit Receipt
FOR	:	shall mean Freight on Road
Fraudulent Practice	:	shall have the meaning ascribed to it in ITB Clause 1.1.2
Go-Ahead	•	shall mean Go-Ahead generated by odishasolarpump.nic portal as per
Go-Aneau		selection of the Empaneled Bidder(s) on the portal
HRS	:	shall mean Hours
FY	:	
	•	shall mean Financial Year
· shai mean General Conditions of Contract		
GOI	:	shall mean Government of India shall mean Government of India or any State Government, as
Government	•	
		applicable, which includes government agencies and public sector
GPRS		undertakings shall mean General Packet Radio Service
GPS	· ·	
GSM	÷	shall mean Global Positioning System
	:	shall mean Global System for Mobile Communications
GST	:	Shall mean Goods and Services Tax
IEC	:	shall mean International Electrotechnical Commission
IFSC	1:	shall mean Indian Financial System Code
IGBT	:	shall mean Insulated Gate Bipolar Transistor
Incoterms	:	Incoterms means international rules for interpreting trade terms
		published by the International Chamber of Commerce (latest edition), 38
	<u> </u>	Cours Albert 1er, 75008 Paris, France.
INR	:	shall mean Indian Rupees
Integrity Violation	:	shall have the meaning ascribed to it in ITB Clause 1.1.2
ISO	1:	shall mean International Organization for Standardization
ITB	:	shall mean Instructions to Bidders
JCC	:	shall mean Joint Commissioning Certificate
KSEDC	:	shall mean Karnataka State Electronics Development Corporation
kWp	:	shall mean kilo-Watt peak
LOI	:	shall mean Letter of Intent
MCCB	:	shall mean Molded Case Circuit Breakers

Definitions and			
Definitions and abbreviation	:	Description	
MNRE		shall mean Ministry of New and Renewable Energy	
MOA	:	shall mean Memorandum of Association	
Month	:	shall mean a calendar month	
MOSFET	:		
MPPT	:		
MSME	:	shall mean Micro, Small & Medium Enterprises	
NABL	:	shall mean National Accreditation Board for Testing and Calibration	
	Laboratories		
NIT	:	shall mean Notice Inviting Tender	
ReSolve Mobile App	:	shall mean mobile app platform developed by OREDA for RE asset	
		identification and maintenance	
Obstructive Practice	:	shall have the meaning ascribed to it in ITB Clause 1.1.2	
OEM	:	shall mean Original Equipment Manufacturer	
OREDA	:	shall mean Odisha Renewable Energy Development Agency	
OREDA Website	:	shall mean http://oredaodisha.com/	
OREDA's Office Address	:	shall mean S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.	
OREDA's Official Email Id	:	shall mean <u>ceoreda@oredaorissa.com</u>	
PAN	:	shall mean Permanent Account Number	
PKI	:	shall mean Public Key Infrastructure	
	•	shall mean implementation of 0.5 Hp off-grid solar pv based micro	
Project	:	pumping system. as specified in the work order issued by OREDA	
Project Manager	:	shall have the meaning ascribed to it in GCC Clause 5.4.1.2	
PSU	:	shall mean Public Sector Undertaking	
Prudent Utility Practices	:	shall mean those practices, methods, acts, equipment specifications,	
Fruderit Otility Fractices	•	techniques and standards of safety and performance, as may be	
		followed or employed in the performance of the Scope of Work and	
		discharge of the obligations of the Successful Bidder and which (a) are	
		generally accepted internationally for use in the solar power generation	
		industry, taking into account conditions in India and specific to India/	
		Odisha (as applicable), and includes the exercise of that degree of	
		professional skill, diligence and judgment that would ordinarily be	
		expected from a skilled and experienced Successful Bidder in	
		connection with power stations of the same or similar size and type as	
		the project, (b) are commonly used in prudent electric utility engineering,	
		project management and operations, and (c) would be expected to result	
		in performance of the Scope of Work in a manner consistent with	
		Applicable Laws, reliability, health and safety of workers and community,	
D\/	<u> </u> .	environmental protection, economy and expediency;	
PV PVC	:	shall mean Photo Voltaic	
QR	:	shall mean Polyvinyl chloride shall mean Qualification Requirement	
Qualified Bidder (s)	ŀ	shall mean the Qualified Bidder who is meeting Qualification	
Quoted Price	+	Requirement shall mean the price quoted by a Bidder in its Price Bid	
RCC	:	shall mean Reinforced cement concrete	
RFID	:	Shall mean Radio Frequency Identification	
RFP	:	shall mean Request for Proposal	
	1		
RMS SCC	:	shall mean Root Mean Square	
	:	shall mean Special Conditions of Contract	
Schedule of Events	:	shall have the meaning ascribed to it in the NIT	
SMS	:	shall mean short message service	
		shall mean the Scope of Work	
SPV Suggester Didder	:	shall mean Solar Photovoltaics	
Successful Bidder	:	shall mean the Successful Bidder who is notified in the Empanelment	
	1	Order and to whom Letter of Intent and Work Order will be issued by the	
	1	OREDA	

Definitions and abbreviation	:	Description	
Tax	:	shall mean all taxes and duties pursuant to any Applicable Laws (whether currently in force or coming into force on or after the last date for submission of online Bid), including, all goods and services tax, tax on the sale of goods (which includes but is not limited to customs duty, anti-dumping duty, basic customs duty, safeguard duty and import duties), duties, but not including income tax, corporation profits tax, capital gains tax and other amounts corresponding thereto and interest, penalty or any other levy applicable on the income, profits, fringe benefits, personal taxes on salaries earned by employees and further includes any interest, surcharge, penalty or fine in connection therewith which may be payable by either Party on such transaction, property, matter mentioned above;	
TDS	:	shall mean Tax Deduction at Source	
Technical Specification	:	shall have the meaning ascribed to it in Appendix Form 1 under Annexure Clause 7.5.1	
Total Price	:	shall mean the final price considered in the Work Order	
UTR	:	shall mean Unique Transaction Reference number	
Work Order	:	shall have the meaning ascribed to it in ITB Clause 1.8.3	
Year	:	shall mean the calendar year	

Interpretation

In the Bidding Document and Work Order, except where the context requires otherwise:

- 1.1.1. words indicating one gender include all genders;
- 1.1.2. words indicating the singular also include the plural and words indicating the plural also include the singular;
- 1.1.3. provisions including the word "agree", "agreed" or "agreement" require the agreement to be recorded in writing;
- 1.1.4. "written" or "in writing" means hand-written, type-written, printed, or electronically made, and resulting in a permanent record; and
- 1.1.5. The marginal words and other headings shall not be taken into consideration in the interpretation of these conditions.

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1. Instruction to Bidders (ITB)

Section 1 (ITB) provides general overview and contents of RFP along with the preparation, submission, opening, evaluation, comparison of Bids, issuance of Letter of Intent and Work Order, etc. Section 1 (ITB) shall be read in conjunction with Section 2 (BDS) and other provisions listed therein, shall be a complete document expressing all terms and conditions. In case of any interpretation issues, Section 2 (BDS) including any associated Addendum, Corrigendum and Clarification will supersede Section 1 (ITB).

1.1. General

1.1.1. Scope of RFP

- 1.1.1.1. In connection with the NIT, OREDA issues this RFF containing all the terms and conditions mentioned herein.
- 1.1.1.2. The RFP along with the NIT and any Addendum, Corrigendum, and Clarification, to be issued from time to time, shall be collectively termed as the Bidding Document. Such a Bidding Document shall be published on the E-procurement Website. In addition, such a Bidding Document shall also be uploaded on OREDA Website, but for viewing purposes only.
- 1.1.1.3. The name of the SOW including the associated NIT no., RFP no. and other details are specified in Section 2 (BDS).

1.1.2. Integrity Violation

- 1.1.2.1. The Bidder observes the highest standard of ethics all the time.
- 1.1.2.2. OREDA defines, for the purposes of this provision, the terms set forth below as follows:
 - a) "Corrupt Practice" means the offering, giving, receiving or soliciting, directly or indirectly, anything of value to influence improperly the actions of another Party;
 - b) "Fraudulent Practice" means any act or omission including a misrepresentation that knowingly or recklessly misleads or attempts to mislead a Party to obtain a financial or other benefit or to avoid an obligation;
 - c) "Coercive Practice" means impairing or harming or threatening to impair or harm, directly or indirectly, any Party or the property of a Party to influence improperly the actions of the other Party;
 - d) "Collusive Practice" means an arrangement between two or more Parties designed to achieve an improper purpose, including influencing improperly the actions of other Party;
 - e) "Obstructive Practice" means
 - i. deliberately destroying, falsifying, altering, or concealing of evidence material to OREDA's investigation;
 - ii. making false statements to investigators in order to materially impede OREDA's investigation;
 - iii. failing to comply with requests to provide information, documents or records in connection with OREDA's investigation;
 - iv. threatening, harassing, or intimidating any Party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - v. materially impeding OREDA's contractual rights of audit or access to information;
 - f) "Integrity Violation" is an act which violates OREDA's policies, including (a) to (e) given above in the ITB Clause 1.1.2.2 and the following abuse, conflict of interest, retaliation against whistleblowers or witnesses, and other violations of OREDA's policies, including failure to adhere to the highest ethical standard.

- 1.1.2.3. OREDA will reject a Bid if it determines that the Bidder has, directly or indirectly through an agent, engaged in Integrity Violation including but limited to any Corrupt Practice, Fraudulent Practice, Coercive Practice, Collusive Practice and Obstructive Practice;
- 1.1.2.4. OREDA will impose remedial actions on any Bidder or an individual, at any time, in accordance with its policies and guidelines (both as amended from time to time), including declaring ineligible, either indefinitely or for a stated period of time, to participate in OREDA-managed, -administered, or -supported activities or to benefit from an OREDA-managed, administered, or -supported, financially or otherwise, if it at any time determines that the Bidder or individual has, directly or through an agent, engaged in Corrupt Practice, Fraudulent Practice, Coercive Practice, Collusive Practice, Obstructive Practice or Integrity Violation; and
- 1.1.2.5. OREDA will have the right to inspect the accounts, records, other documents, etc. of the Bidders and relating to the Bid submission and to have them audited at any point in time.

1.2. Contents of the RFP

1.2.1. Sections of the RFP

- 1.2.1.1. The RFP consists of the following Sections as indicated below and should be read in conjunction with the NIT and any Addendum, Corrigendum and Clarification.
 - a) Exhibits
 - i. Definitions
 - ii. Interpretations
 - b) Section 1 Instructions to Bidders (ITB)
 - c) Section 2 Bid Data Sheet (BDS)
 - d) Section 3 Scope of Work (SOW)
 - e) Section 4 Qualification Requirement (QR)
 - f) Section 5 General Conditions of Contract (GCC)
 - g) Section 6 Special Conditions of Contract (SCC)
 - h) Section 7 Annexure
- 1.2.1.2. OREDA is not responsible for the completeness of the Bidding Document if they were not obtained directly from E-procurement Website.
- 1.2.1.3. The Bidder is expected to examine the complete Bidding Document. Failure to furnish all information or documentation required by the Bidding Document may result in the rejection of the Bid.

1.2.2. Clarification on RFP, Site Visit and Pre-Bid Meeting

- 1.2.2.1. A prospective Bidder requiring any clarification on the RFP shall contact at OREDA's Office Address or write to OREDA's Official Email Id, prior to the pre-bid meeting, in accordance with ITB Clause 1.1.2.2. The queries shall be raised as per the format provided in Annexure Clause 7.4 Pre-bid Form7.4
- 1.2.2.2. The pre-bid meeting shall be conducted in the manner specified in Section 2 (BDS). The Bidder's designated representative may attend the pre-bid meeting. The purpose of the pre-bid meeting will be to clarify issues and to prepare Clarification against the queries received from the Bidders on any matter that may be raised at that stage. OREDA may respond to any query for providing Clarification in writing, provided that such queries are received as per the timelines given in the NIT and any Corrigendum.
- 1.2.2.3. The Clarification against the queries raised, without identifying the source of the prospective Bidder, may be uploaded on the E-procurement Website and OREDA Website. Any modification to the RFP shall be made by OREDA exclusively through the issue of an Addendum.

- 1.2.2.4. Non-attendance at the pre-bid meeting will not be a cause for disqualification of a Bidder.
- 1.2.2.5. The Bidder and any of its personnel and/ or agents will be granted permission by OREDA to enter the Project site for the purpose of such visit, but only upon the express condition that the Bidder, its personnel and/ or agents will release and indemnify OREDA and its personnel, agents, etc. from and against any liability in respect thereof, and the Bidder shall be responsible for any death or personal injury, loss of or damage to property, and any other loss, damage, costs, expenses, etc. incurred as a result of the inspection during the Project site visit.

1.2.3. Addendum, Corrigendum, and Clarification to the RFP

- 1.2.3.1. At any time, prior to the deadline for submission of Bids, OREDA may issue an Addendum, Corrigendum and Clarification.
- 1.2.3.2. OREDA may, at its discretion, extend the deadline for the submission of Bids by issuing a Corrigendum in order to give prospective Bidders reasonable time in preparing their Bids. At any point in time, the latest Corrigendum will supersede the Schedule of Events mentioned in the NIT or any previously issued Corrigendum.
- 1.2.3.3. OREDA may, at its discretion, modify or change any specific provisions of terms and conditions of the RFP or any Addendum issued previously by issuing an Addendum for such specific provisions. At any point in time, the provisions provided against a specific Clause in the latest Addendum shall supersede such provisions already provided in the RFP or any previously issued Addendum.

1.3. Preparation of Bids

1.3.1. Cost for preparation of Bid

1.3.1.1. The Bidder shall bear all the costs associated with the preparation and submission of the Bid, and OREDA shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

1.3.2. Language of Bid

- 1.3.2.1. The Bid, as well as all correspondence and documents for any communications exchanged by the Bidder and OREDA, shall be written in the English language only.
- 1.3.2.2. Any supporting documents and printed literature that are part of the Bid may be submitted in another language provided they are accompanied by an accurate translation of the relevant passages in the English language only, in which case, for purposes of interpretation of the Bid, such English translation shall govern. In case of any misrepresentations in the English language vis-à-vis another language, OREDA, at its discretion, can reject the Bid submitted by the Bidder on the ground of misrepresentation of the information.

1.3.3. Documents comprising the Bid

1.3.3.1. The Bid shall comprise of the Technical Bid and Price Bid. The Technical Bid and Price Bid shall be submitted online pursuant to ITB Clause 1.3.3.2 and ITB Clause 1.3.3.3 respectively, as per all the terms and conditions of the Bidding Document. In addition, the select original hard copies of the Bid shall be submitted pursuant to ITB Clause 1.3.3.4 at OREDA's Office Address.

Bid Form	Particulars
Bid Form 1	Copy of the "Covering Letter of Technical Bid" duly signed by the
(Covering Letter	Authorized Signatory and stamped by the Bidder to unconditionally
of Technical Bid)	accept all terms of the Bidding Document.
	This is a mandatory submission for all the Bidders and shall be submitted as per the requirements given in Bid Form 1 of Section 7 (Annexure).

1.3.3.2. The online submission of the Technical Bid shall comprise the following:

Bid Form	Particulars
Bid Form 2	Copy of the "Summary of the Technical Bid" duly signed by the
(Summary of the	Authorized Signatory and stamped by the Bidder along with the
Technical Bid)	required attachments as given therein.
	This is a mandatory submission for all the Riddors and shall be
	This is a mandatory submission for all the Bidders and shall be
	submitted as per the requirements given in Bid Form 2 of Section 7
	(Annexure).
Bid Form 3	Copy of the "Power of Attorney " issued in the name of the Authorized
(Power of	Signatory of the Bidder supported by the required Board Resolution for
Attorney)	submitting the Bid on behalf of the Bidder.
	This is a mandatany submission for all the Didders and shall be
	This is a mandatory submission for all the Bidders and shall be
	submitted as per the requirements given in Bid Form 3 of Section 7
Did Farma 4	(Annexure).
Bid Form 4	Copy of the " Technical Qualification " certificate duly signed by the
(Technical	Authorized Signatory and stamped by the Bidder citing the Bidder's
Qualification)	technical qualification as given in QR Clause 4.3.
	This is a mandatory submission for the Didder participating as a
	This is a mandatory submission for the Bidder participating as a Developer only and shall be submitted as per the requirements given
Did Form F	in Bid Form 4 of Section 7 (Annexure).
Bid Form 5	Copy of the "Financial Qualification" certificate duly signed and
(Financial	stamped by a chartered accountant citing the Bidder's financial
Qualification)	qualification as given in QR Clause 0.
	This is a mandatory submission for the Didder participating as a
	This is a mandatory submission for the Bidder participating as a
	Developer only and shall be submitted as per the requirements given
Bid Form 6	in Bid Form 5 of Section 7 (Annexure). Copy of the declaration for the " Test Certificate " for the Equipment as
(Test	mentioned in QR Clause 4.2.1.
Certificates)	mentioned in Qix Clause 4.2.1.
Certificates)	This is a mandatory submission for all the Bidders and shall be
	submitted as per the requirements given in Bid Form 6 of Section 7
	(Annexure).
Bid Form 7	Copy of the declaration of the " Self-certificate " duly signed by the
(Self-certificate)	Authorized Signatory and stamped by the Bidder and notarized by the
	appropriate authority to declare that it has not been debarred/
	blacklisted/ defaulted by any Government, agency, Public Sector
	Undertaking (PSU), institution/ autonomous organizations in the past.
	In case of any such events, the Bidder shall provide the case details
	and its current status in the format therein as given in QR Clause
	4.1.3.
	This is a mandatory submission for all the Bidders and shall be
	submitted as per the requirements given in Bid Form 7 of Section 7
	(Annexure).
Bid Form 8	Copy of the "Undertaking for Indigenousness" certificate duly signed
(Undertaking for	by the Authorized Signatory and stamped by the Bidder to showcase
Indigenousness)	the use all the Equipment in this Project are indigenous and Made in
	India, as per the relevant guidelines of the Ministry of New and
	Renewable Energy (MNRE), Government of India.
	This is a mandatory submission for all the Bidders and shall be
	submitted as per the requirements given in Bid Form 8 of Section 7
	(Annexure).
Bid Form 9	Copy of the "No Deviation Certificate" duly signed by the Authorized
(No Deviation	Signatory and stamped by the Bidder stating that the Bidder has not
Certificate)	taken any deviation in the Bidding Document.
,	

Bid Form	Particulars
	This is a mandatory submission for all the Bidders and shall be submitted as per the requirements given in Bid Form 9 of Section 7 (Annexure).

1.3.3.3. The online submission of the Price Bid shall comprise the following:

Bid Form	Particulars
Bid Form 10	Copy of the "Covering Letter of Price Bid" duly signed by the
(Covering Letter	Authorized Signatory and stamped by the Bidder to unconditionally
of Price Bid)	accept all terms of the Bidding Document.
,	
	This is a mandatory submission and shall be submitted as per the
	requirements given in Bid Form 10 of Section 7 (Annexure).
Bid Form 11	Copy of the " Price Bid " duly signed by the Authorized Signatory and
	stamped by the Bidder mentioning the Quoted Price for the Bid.
(Price Bid–	
Category A	
Bidder)	This is a mandatory submission and shall be submitted in Microsoft xls.
	or .xlsx format only as per the sample requirements given in Bid Form
	11 of Section 7 (Annexure).
Bid Form 12	Copy of the "Price Bid" duly signed by the Authorized Signatory and
(Price Bid –	stamped by the Bidder declaring the acceptance to the lowest
Category B	evaluated price at the L1 price as discovered during the bidding
Bidder)	process.
Didder)	
	This is a manufatant submission and shall be submitted in Misson field
	This is a mandatory submission and shall be submitted in Microsoft xls.
	or .xlsx format only as per the requirements given in Bid Form 12 of
	Section 7 (Annexure).

1.3.3.4. The original hardcopy of the Bid shall be submitted in sealed cover envelope comprise the following:

Bid Form	Particulars
Bid Form 2	Cost of Bid:
(Summary of the	
Technical Bid)	Original of the " Demand Draft " for an amount and other details as mentioned in Section 2 (BDS) issued by a nationalized/ commercial bank in India towards " Cost of Bid " issued in favour of Chief Executive, OREDA payable at Bhubaneswar, Odisha.
	This shall be a non-refundable fee.
	This shall be payable by all the Bidders, subject to any exemption as provided in Section 2 (BDS). In case of an exempt as admissible, the copy of the proof of exemption issued by an appropriate Government authority (as applicable) shall be submitted.
	This is a mandatory submission and shall be submitted as per the requirements given in Bid Form 2 of Section 7 (Annexure).
	Bid Security:
	Bid Security Declaration Form shall be submitted as per Bid Form 2.
	This is a mandatory submission and shall be submitted as per the requirements given in Bid Form 2 of Section 7 (Annexure).

1.3.3.5. For online submission of the Technical Bid and Price Bid, the Bidder shall submit each Bid Form as a separate copy and name the Bid Form as given under the column "Bid Form" given in ITB Clause 1.3.3.2 and ITB Clause 1.3.3.3. For example, the name of the online copy while uploading Form 1 shall be "Bid Form 1 (Covering Letter of Technical Bid)" to be submitted either in .pdf or .jpg or .jpeg format.

- 1.3.3.6. The Bid Forms must be submitted without any alterations to the text, and no substitutes shall be accepted in whatsoever condition, else the Bids shall be liable for rejection.
- 1.3.3.7. In case a submission is a mandatory submission as per all terms of the Bidding Document then the Bidder shall adhere to the same, else the Bids shall be liable for rejection.

1.3.4. Bid Prices

- 1.3.4.1. The Bidder shall fill in the Price Bid in line with the instructions mentioned in the Price Bid format as given under Bid Form 11 and Bid Form 12.
- 1.3.4.2. The Bid prices in the Price Bid shall be made at FOR destination at Project site basis, which means that the Bidder shall be responsible for bringing all Equipment to be used in this Project and maintain it in their safe custody until the Acceptance of the Project is completed with the issuance of Acceptance Certificate and beyond that during the CMC Period as per the terms and conditions of the RFP.

1.3.5. Currencies of Bid and Payment

1.3.5.1. The Price Bid shall be quoted by the Bidder entirely in the currency "Indian Rupees" or "INR".

1.3.6. Period of Validity of Bids

- 1.3.6.1. Bids shall remain valid for the time period as specified in Section 2 (BDS) after the last date of Bid submission as prescribed in the NIT or its subsequent Corrigendum. A Bid valid for a shorter period than the above shall be liable for rejection by OREDA.
- 1.3.6.2. In exceptional circumstances, prior to the expiration of the Bid validity period, OREDA may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB 1.3.7, it shall also be extended suitably beyond the deadline of the extended validity period on a mutual basis beyond the initial validity period. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its Bid.

1.3.7. Bid Security

- 1.3.7.1. The Bidder shall furnish Bid Security as per the Bid Form 2 pursuant to ITB Clause 1.3.3.2.
- 1.3.7.2. Unless otherwise specified in Section 2 (BDS), any Bid not accompanied by a fully compliant Bid Security in case one is required in accordance with ITB Clause 1.3.7.1, shall be liable for rejection by OREDA as non-responsive Bid.
- 1.3.7.3. If a Bid Security is specified pursuant to ITB Clause 1.3.7.1, the Bid Security of unsuccessful Bidders shall be returned within a maximum time period of thirty (30) Days upon the Qualified Bidder accepting the Letter of Intent (LOI) with required formalities.
- 1.3.7.4. If a Bid Security is specified pursuant to ITB Clause 1.3.7.1, the Bid Security of the Qualified Bidder shall be returned within a maximum time period of thirty (30) Days after completion of empanelment period with required formalities.
- 1.3.7.5. The Bid Security received against the previous RFPs shall not be adjusted towards the Bid Security to be submitted against this RFP.
- 1.3.7.6. The Bid Security shall be forfeited,
 - a) if a Bidder withdraws its Bid during the period of Bid validity specified by the Bidder on the respective Covering Letters of Technical Bid and Price Bid; or
 - b) if the Bidders quoting L1 price fails to accept the offer.
 - c) if the Successful Bidder fails to
 - i. accept the arithmetical correction of its Price Bid pursuant to ITB Clause 1.5.6; or
 - ii. accept the LOI pursuant to ITB Clause 1.8.1; or
 - iii. furnish the Performance Security pursuant to ITB Clause 1.8.2; or
 - iv. accept the Work Order pursuant to ITB Clause 1.8.3;

1.3.8. Format and Signing of Bid

- 1.3.8.1. The Bid Form as given in ITB Clause 1.3.3 or any electronic form, if any and as available on the E-procurement Website, or any external form in Microsoft .xls or.xlsx format for the Technical Bid and the Price Bid shall be duly filled and scanned copies or Microsoft .xls or .xlsx or electronic form as available on the E-procurement Website shall be duly uploaded as per the instructions mentioned in ITB Clause 1.4.1.1, unless a specific instruction provided therein in the RFP Document.
- 1.3.8.2. The original documents of the Bid shall be typed or written in indelible ink and shall be signed by the Authorized Signatory supported by the seal of the Bidder. In case the original documents are issued by any third party (for example - the chartered accountant, etc.) then the same shall be signed by a person duly authorized to sign on behalf of the third party supported by the seal of the third party along with other details as required.
- 1.3.8.3. The name and position held by each person signing or accepting the authorization must be typed or printed below the signature.
- 1.3.8.4. Any amendments such as interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Bid.

1.4. Submission and Opening of Bids

1.4.1. Sealing and Marking of Bids

1.4.1.1. The Technical Bid and Price Bid shall be submitted as per the procedures mentioned in Section 2 (BDS).

1.4.2. Deadline for submission of Bids

- 1.4.2.1. The Bids must be submitted to OREDA through E-procurement Website only and no later than the date and time indicated in the NIT or any Corrigendum.
- 1.4.2.2. OREDA may, at its discretion, extend the deadline for the submission of Bids through the publication of a Corrigendum in accordance with ITB Clause 1.2.3.2, in which case all rights and obligations of OREDA and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

1.4.3. Late Bids

1.4.3.1. OREDA shall not consider any Bid that arrives after the deadline for submission of Bids, in accordance with ITB Clause 1.4.2. Any Bid (either online or offline) received by OREDA after the deadline for submission of Bids shall be declared as a late Bid. Such late Bids shall be liable for rejection online, and the online copy of the Bid uploaded on the E-procurement Website shall be sent unopened to "Archive" and shall not be considered at all any further for evaluation. In such a case, the hardcopies in the original form shall be returned unopened to the Bidder.

1.4.4. Withdrawal, Substitution, and Modification of Bids

- 1.4.4.1. A Bidder may withdraw, substitute, or modify its Technical Bid or Price Bid after it has been submitted as per the procedure mentioned in the E-procurement Website and as per the instructions mentioned in ITB Clause 1.4.1.1.
- 1.4.4.2. No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bids and the expiration of Bid validity period specified by the Bidder on the Covering Letters of Technical Bid and Price Bid or any extension thereof as per the terms of Bidding Document.
- 1.4.4.3. Bidder may modify or withdraw their Bids through the relevant provisions on the Eprocurement Website until the last date for submission of Bid as per the timelines mentioned in the NIT or any Corrigendum.
- 1.4.4.4. The Bidders may modify, resubmit, or withdraw their Bids as per the provisions given on the E-procurement Website.

1.4.4.5. In the case of original hard copies of the Bidder, such Bids will be considered based on the latest submission made by the Bidder. In such a case, any previous original hard copies shall be returned unopened to the Bidder.

1.4.5. Acceptance/ rejection of the Bids

- 1.4.5.1. The Bids submitted by the Bidders shall be liable for rejection in case
 - a) Any incomplete or non-submission of any mandatory Bid Form or document mentioned under online submission of Technical Bid pursuant to ITB Clause 1.3.3.2.
 - b) Any incomplete or non-submission of any mandatory Bid Form or document mentioned under the online submission of Price Bid pursuant to ITB Clause 1.3.3.3.
 - c) Any incomplete or non-submission of any mandatory Bid Form or document mentioned under hardcopy submission of Bid pursuant to ITB Clause 1.3.3.4
 - d) Late Bids received as per ITB Clause 1.4.3.
 - e) Canvassing in any manner shall not be entertained and will be viewed seriously and shall be liable for rejection.
 - f) The Bids are found non-responsive pursuant to all the relevant clauses in the Bidding Document.

1.4.6. Bid Opening

1.4.6.1. Technical Bid (Online and hardcopies)

- a) Online Technical Bid:
 - i. OREDA shall open the online Technical Bids on the E-procurement Website as per the timelines mentioned in the NIT or any Corrigendum.
- b) Hardcopies of Technical Bid:
 - i. OREDA shall open the hardcopies of the Technical Bids at OREDA's Office Address as per the timelines mentioned in the NIT or any Corrigendum. Such Technical Bid shall be opened in the presence of Bidders' designated representatives who chooses to attend. In such cases, the Bidder's designated representative must carry a letter of authorization issued by the Bidder's Authorized Signatory.
 - ii. The Bidders' representatives who are present during the opening of hardcopies of the Technical Bids may be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record.
- c) OREDA shall prepare a record of the opening of Technical Bids as per the internal guidelines notified from time to time.

1.4.6.2. Price Bid (online):

- a) OREDA shall conduct the opening of the Price Bids for all Bidders who are responsive in their Technical Bids after the evaluation being conducted by OREDA pursuant to ITB Clause 1.5.
- b) The Price Bids shall be opened online after the complete evaluation of the Technical Bids by OREDA. OREDA shall open the online Price Bids on the E-procurement Website as per the timelines mentioned in the NIT or any Corrigendum.

1.5. Evaluation and Comparison of Bids

1.5.1. Confidentiality

1.5.1.1. Information relating to the examination, evaluation, comparison, and post qualification of Bids and recommendation for the issue of Work Order, shall not be disclosed to Bidders or any other persons not officially concerned with such process until information on the issuance of Work Order is communicated to all Bidders, unless it is specifically required by OREDA to do such disclosure as per the specific requirements.

- 1.5.1.2. Any attempt by a Bidder to influence OREDA's decision in the evaluation of the Bids or issuance of Work Order may result in the rejection of its Bid.
- 1.5.1.3. Notwithstanding ITB Clause 1.5.1.2, from the time of Bid opening to the time of issuance of Work Order, if any Bidder wishes to contact OREDA on any matter related to the bidding process, it may do so in writing only.

1.5.2. Clarification of Bids

- 1.5.2.1. To assist in the examination, evaluation, and comparison of the Technical Bid and Price Bid, OREDA may, at its discretion, ask any Bidder for a clarification of its Bid. OREDA's request for clarification and the response shall be in writing only. No change in the substance of the Technical Bid or prices in the Price Bid shall besought, offered, or permitted. OREDA reserves all the rights to evaluate any such response received from the Bidder based on the clarification to be sought.
- 1.5.2.2. If a Bidder does not provide clarification of its Bid by the date and time set in OREDA's request for clarification, such Bid shall be liable for rejection.

1.5.3. Examination of Technical Bids

- 1.5.3.1. OREDA shall examine the Technical Bid to confirm that all documents and information requested in ITB Clause 1.3.3.2 for online submission and ITB Clause 1.3.3.4 for hardcopy submission have been provided in order to assess the completeness of the Technical Bid.
- 1.5.3.2. OREDA shall confirm that all the requirements have been provided in the Technical Bid in all respect. If any of the documents or information is missing, the Bid shall be liable for rejection.

1.5.4. Responsiveness of Technical Bid

- 1.5.4.1. OREDA's determination of a Technical Bid's responsiveness shall be strictly based on the contents of the Technical Bid, as mentioned in ITB Clause 1.3.3.2 and ITB Clause 1.3.3.4.
- 1.5.4.2. If a Bid is not responsive to the requirements of the RFP, it shall be liable for rejection by OREDA and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

1.5.5. Qualification of the Bidder

- 1.5.5.1. OREDA shall determine to its satisfaction during the evaluation of Technical Bids whether Bidders meet the qualifying requirements specified in Section 4 (QR).
- 1.5.5.2. The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB Clause 1.3.3.
- 1.5.5.3. An affirmative determination shall be a pre-requisite for the opening and evaluation of a Bidder's Price Bid. A negative determination shall result in the disqualification of the Bid.

1.5.6. Correction of Arithmetical Errors

- 1.5.6.1. During the evaluation of Price Bids, OREDA shall correct arithmetical errors on the following basis:
 - a) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected.
 - b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail, and the total shall be corrected.
 - c) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to a) and b) above.

1.5.6.2. If the Bidder that submitted the lowest evaluated (L1) Bid does not accept the correction of errors, its Bid shall be disqualified, and its Bid Security shall be forfeited.

1.5.7. Evaluation and comparison of Bids

1.5.7.1. OREDA shall compare all responsive Bids to determine the lowest evaluated Bid, in accordance with ITB Clause 1.5.6.2.

1.5.8. OREDA's right to accept any Bid, and to reject any or all Bids

1.5.8.1. OREDA reserves all the right to accept or reject any Bid or to annul the bidding process or reject all Bids at any time prior to the issue of Work Order, without thereby incurring any liability to Bidders. In case of annulment, the Bids shall be liable for rejection online and the online copy of the Bid uploaded on the E-procurement Website shall be sent unopened to "Archive" and shall not be considered at all any further for evaluation. In such a case, the hard copies in the original form shall be returned unopened to the Bidder.

1.6. Issue of LOI for empanelment

1.6.1. Award Criteria

- 1.6.1.1. The various categories of the Bidders considered in this Bidding Document are mentioned in Section 2 (BDS).
- 1.6.1.2. The Successful Bidders for empanelment shall be selected as per the procedures mentioned in Section 2 (BDS).

1.6.2. Issue of LOI

- 1.6.2.1. Prior to the expiry of the period of Bid validity, OREDA shall notify the Qualified Bidder(s), in writing, that its Technical Bid has been accepted. At the same time, OREDA may also notify all other Bidders of the results of the bidding. In addition, OREDA may publish the results on the OREDA Website and E-procurement Website.
- 1.6.2.2. OREDA shall issue a LOI, as per LOI Form 1 under Section 7 (Annexure), to the Qualified Bidder(s) and is responsive to the Bidding Document, provided further that the Bidders are determined to be qualified for the issuance of LOI satisfactorily.
- 1.6.2.3. Upon receiving the LOI, the Qualified Bidders shall fulfill all other requirements given under the LOI and submit the below mentioned critical documents within a maximum time period of fifteen (15) Days from the date of LOI and provide its acceptance, without any fail, else such Bids shall be liable for rejection.

SI. No	Critical documents
1.	Acceptance to the LOI by signing the copy of the LOI along with an official seal,
	date, and submission to OREDA
2.	Valid Test Certificates along with datasheets of all Equipment used in the
	Project, as per Bid Form 6 of Section 7 (Annexure).
3.	Contact information of various OEMs of all Equipment used in the Project

1.7. Empanelment Order

1.7.1. Issue of Empanelment Order

- 1.7.1.1. Failure of the Qualified Bidders to complete all the formalities mentioned in the LOI pursuant to ITB Clause 1.6.2 shall constitute sufficient grounds for the annulment of the LOI. In all cases, the Bid of the Qualified Bidder (s) as discovered through the process mentioned in BDS Clause 2.1.7 shall be responsive and is determined by OREDA to be qualified to complete the formalities satisfactorily. In case, any of the Bidder does not accept the LOI, then OREDA shall have the right to annul the bidding process, at its own discretion.
- 1.7.1.2. Upon completion of all the formalities mentioned in the LOI within the stipulated timeline by the Bidder(s), OREDA shall issue the Empanelment Order to the Qualified Bidder(s) within a maximum time period of fifteen (15) Days.

1.7.1.3. Empanelment Order issued to Qualified Bidder(s) accepting the LOI with required formalities shall be called as Successful Bidder(s).

1.7.2. Content of Empanelment Order

- 1.7.2.1. Empanelment of bidders shall be done for different types of Project. It is mandatory for bidders to bid for all different capacity of projects under particular type of project mentioned under the scope of work.
- 1.7.2.2. Empanelment Order will mention the name of empaneled Successful Bidder(s) & category of bidder. The Discovered Price shall remain valid until the expiry of the Empanelment Period.

1.8. Go-Ahead for Project

1.8.1. Go Ahead for Project

The work involves installation of solar based micro pumping system for marginal farmers having minimum of 0.5 acre of land under Sourajalanidhi scheme which was launched by the Department of Agriculture and Farmer Empowerment, Govt of Odisha. 5000 farmers are planned to be covered within one year under this scheme.

The broad implementation mechanism of the Sourajalanidhi is as follows:

1. Farmer will apply online in odishasolarpump.nic.in portal

2. VAW will physically verify & upload photo through mobile app. Which will be validated by ORSAC.

- 3. Accepted cases will be approved by the Collector & D.M.
- 4. Farmer will select the vendor & auto generate go-ahead
- 5. Farmer will deposit farmer share to OREDA designated account .
- 6. OREDA will install & upload photo through mobile app.
- 7. DA&FP(O) will release State share to OREDA.

As per the applications received on the portal, the Successful Bidder(s) shall receive a Go-Ahead and should implement work in accordance with the Clause 3.4.1.

1.8.1.1. Upon receiving the Go-Ahead, the Successful Bidder(s) shall submit the below mentioned critical documents within a maximum time period of fifteen (15) Days from the date of Go-Ahead, without any fail, else such Bids shall be liable for rejection.

SI. No	Critical documents
1.	Submission of a Detailed Workplan in line with the Project Timelines mentioned
	in the SOW Clause 3.4.1 for the implementation of Project.
2.	Submission of a site survey & yield test report with the finalization of the exact
	location of the Project and the plan for the finalization of loads for the purpose of
	implementation of the Project.
3.	Single line diagram of the Project.
4.	Design document of the module mounting structure and other mounting structure
	of the Project along with a STAD pro analysis report as a part of the mandatory
	submission.
5.	Bill of materials along with spares along with all relevant equipment test
	certificates

1.8.2. Performance Security NOT APPLICABLE

1.8.3. Issue of Work Order

1.8.3.1. The successful bidders, shall be allocated work as per selection by the beneficiary on odishasolarpump.nic.in/ portal.

2. Bid Data Sheet (BDS)

Section 2 (BDS)shall supplement the Clauses mentioned in Section 1 (ITB). Whenever there is a conflict or interpretation issue, the provisions herein shall prevail over those in Section 2 (BDS). The Clause number of Section 2 (BDS) is the corresponding Clause number of Section 1 (ITB).

2.1. Specific provisions of ITB

BDS Clause reference	ITB Clause reference	Detailed Clause			
2.1.1.	ITB Clause 1.1.1.3	Name of the Project: Design, engineering, supply, installation, testing, commissioning and acceptance of 0.5 Hp off-grid solar pv based pumping system projects along with Comprehensive Maintenance for five (5) years across 5000 locations in Odisha on a rate contract basis.NIT no.: [2402]/OREDA/ dated [22] [July] 2021RFP no.: [2402]/OREDA/ dated [22] [July] 2021			
2.1.2.	ITB Clause 1.2.2.2	The pre-bid meeting	g shall be conduct	ted through an or	nline pre-bid meeting.
2.1.3.	ITB Clause 1.3.3.2 and ITB Clause	Estimated Cost (INR)	Bid Security (INR)	Cost of Bid (INR)	Bid Processing Fee (INR)
	1.3.3.4	30 Crores	NA	10,500 + GST	5,000 + GST
		 Note: The Bidder who is exempted to pay the Cost of Bid, shall produce the relevant certificates issued by the Government. This can be submitted as per Bid Form 2. Bid Security Declaration shall be submitted by bidders as per Bid Form 2 and disciplinary action mentioned in Bid Security Declaration will be applicable in place of forfeiture of the Bid Security wherever applicable in this RFP. The Bid Processing Fee shall be made in favour of "KSEDC Limited" payable 			it. This can be submitted bidders as per Bid bid Security Declaration Bid Security wherever SEDC Limited" payable
2.1.4.	ITB Clause 1.3.6.1	at "Bengaluru". This can be submitted as per Bid Form 2. Bid validity period : Three hundred and sixty-five (365) Days from the last			
2.1.5.	ITB Clause 1.4.1.1	 date of Bid submission. Procedure for submission of Bid: For participating in the Bid, it is mandatory to procure the Digital Signature Certificate (DSC) of class-III only. 			
		• The Bidders are advised to register their user id, password, and company id on the E-procurement Website by clicking on the hyperlink "Register Me" to fill in the online registration form.			
		The unregistered Bidders are required to pay a registration fee in favour of M/s. KSEDC Limited (Karnataka State Electronics Development Corporation Limited) payable at Bangalore on the E-procurement Website through e-payment mode only as per the instruction given therein.			ics Development E-procurement Website
	 As soon as the verification is done by the E-procurement Website, t user id will be enabled/ provided. 			rement Website, the	
		 After viewing the RFP on the E-procurement Website, if the Bidder intends to submit its Bid, the Bidder shall use the user id and password that has been received after registration and use the DSC. The step-by- step instructions are given below: 			

BDS Clause reference	ITB Clause reference	Detailed Clause
		 Insert the Public Key Infrastructure (PKI), which consists of the DSC in the system. Ensure that the necessary software of PKI has been installed.
		- Click/ Double Click to open the Microsoft Internet Explorer
		 Go to Start > Programs > Internet Explorer. Type the E-procurement Website address "www.tenderwizard.com/OREDA" in the address bar of Internet Explorer to access the Login Screen.
		- Enter user id and password, click on "Go".
		 Click on "Click here to login" to select the DSC and enter the DSC Password. Re-enter the user id and password.
		- Click "Un Applied" to view/ apply for a new RFP.
		 Click on the "Request" icon for online requests. After making the request, the Bidder shall pay the requisite Bid Processing Fee (as indicated in the NIT) through e-payment mode only available on the E-procurement Website. The Bidders can download the Bidding Document by following the below steps.
		 Click on the "Show Form" icon.
		 Bidding Document will appear on the screen.
		 Click "Click here to download" to download the Bidding Document.
		• The Bidder shall submit the Bid either under Category A or Category B as per the terms of the Bidding Document.
		The Bidder shall submit the Bid as per the terms of the Bidding Document.
		• All the softcopies of the Bid shall be properly scanned and shall be legible and such softcopies shall be either uploaded in .pdf or.jpg or .jpeg format.
		• Prior to submission, verify whether all the required documents as a part of Technical Bid and Price Bid have been attached and uploaded against the particular Bidding Document or not.
		• The Price Bid shall be uploaded on the E-procurement Website only in Microsoft .xls or .xlsx format only. By no other means, except online through E-procurement Website, the Price Bid shall be accepted for evaluation of the Bids.
		• The hardcopies as required to be submitted shall be submitted OREDA's Office Address as per the timelines mentioned in NIT or any Corrigendum.
		• Please note down or take a print of the bid control number once it is displayed on the screen.
		Bid opening events can be viewed online.
		• The Bids submitted by one Bidder can be viewed by other Bidders.
2.1.6.	ITB Clause 1.6.1.1	The empanelment of bidder will include two (2) categories of the Bidders for each type of project:
		Category A:
		 Any Bidder registered pan India who meets the Qualification Requirement as per Section 4 (QR) can participate under Category A.
		Category B: The Bidders who are local MSME and registered under the MSME Development Act, 2006 in Odisha as per Section D, Division 35, Group 351 having NIC 5-digit code of 35105 (Electric power generation

BDS Clause reference	ITB Clause reference	Detailed Clause
		using solar energy) and meets other requirements as per QR clause 4.1 and meets "Specific Qualification Requirement" as per QR Clause 4.2, but does not meet the "Technical Qualification Requirement" as per QR Clause 4.3 and "Financial Qualification Requirement" as per QR Clause 0. In case any such Bidder has participated under Category A, then such a Bidder cannot participate under Category B.
		Note: A Bidder can either participate under Category A or under Category B. Further, Category A and Category B bidder shall not be related by any way which may result into conflict of interest. In case a Bidder participates for both Category A and Category B or Category A and Category B bidders are related entities as per our definition of affiliate, then such Bids shall be summarily rejected owing to conflict of interest and either or both bidder may be blacklisted in the future from further participating in any bid with OREDA.
		The empanelment order may include empaneled Bidders from Category A and Category B bidders.
		Note : OREDA reserves all the right to empanel bidders under the Category A and Category B.
2.1.7.	ITB Clause 1.6.1.2	Empanelment of Successful Bidders:
		• Based on quotation submitted by the Qualified Bidder(s), lowest evaluated price (L1) for different types (technologies of pump) of Project shall be discovered.
		 The discovered L1 price for each type of Project shall be offered to Qualified Bidder(s).
		• For each type of project maximum 5 Successful Bidders under Category A (including L1) will be selected. L2 bidders onwards will be asked to match the L1 price. Four (4) Qualified Bidders who will match L1 price will be selected (other than the L1 bidder) based on their ranking and subject to matching L1 price.
		• For category B, maximum 3 Successful Bidders will be selected for each type of project subject to matching L1 price. If the number of category B bidders are more than 3 selection will be done through draw of lots.
		• Empanelment Order will be issued to Qualified Bidder(s) who qualified as L1 bidders or accepted L1 price bid for each type of project and accepting the LOI with required formalities
		 In all cases, the Bid of the Successful Bidder shall be responsive and is determined by OREDA to be qualified to complete the formalities satisfactorily.
		 OREDA shall ask Other Bidder(s) to accept L1 price within a maximum time period of 24 hours from the time of intimation of the results after the completion of evaluation process, by sending an email to OREDA's Official Email Id. Such Bidders shall confirm the acceptance of L1 price within a maximum time period of 24 hours from the time of receipt of offer email from OREDA. In such cases, the failure on the part of the Bidder to reject the offer shall not lead to the forfeiture of the Bid Security.
		• OREDA shall issue Empanelment Order to Successful Bidder(s) accepting L1 price each type of project, however Work Order to Successful Bidder(s) shall be issued based on availability and feasibility of Projects and subsequent performance of the Successful Bidders.
		Allocation of Work to empaneled Successful Bidders:

BDS Clause reference	ITB Clause reference	Detailed Clause
		 Allocation of works shall be as per the selection made by beneficiaries.
		Note:
		OREDA reserves all the right to change the number of empanel bidders under the Category A and Category B.
		OREDA reserves the right to negotiate with the L1 Bidder to arrive at the Total Price for the Bid.
		OREDA shall verify the feasibility of Projects submitted the Successful Bidders post receiving the Go-Ahead and subsequent performance of the Successful Bidders.
2.1.8.	-	Performance Security:
		NOT APPLICABLE

3. Scope of Work (SOW)

Section 3 (SOW) contains about the Project, roles, and responsibilities of the individual Parties, Equipment requirements, Technical Specifications, Designs and Drawings, Supplementary Information, Spares, Project Timelines, etc. that describe the SOW under the RFP.

3.1. About the Project

3.1.1. Introduction

- 3.1.1.1. This project aims to empanel Engineering, Procurement and Construction (EPC) contractors on rate contract basis for implementation of different types of 0.5 HP (500 Wp) Off-grid Solar PV based Micro Pumping Systems across Odisha.
- 3.1.1.2. The Scope of Work shall be for empanelment EPC Contractor(s) for design, engineering, supply, installation, testing, commissioning and acceptance of 0.5 HP (500 Wp) Off-grid Solar PV based Micro Pumping projects along with Comprehensive Maintenance for five (5) years across Odisha on a rate contract basis for period of one year from date of empanelment order.
- 3.1.1.3. Following will be the Scope of Work for different types of projects during empanelment period.

Sr. No.	Type of Project	Description of Scope	Estimated Quantity	
1	0.5 Hp Off-Grid Solar PV based Pumping System (BLDC Submersible Pump)			
2	0.5 Hp Off-Grid Solar PV based Pumping System (PMDC Submersible Pump)	Cost of design, engineering, supply,		
3	0.5 Hp Off-Grid Solar PV based Pumping System (AC Submersible Pump)	installation, testing, commissioning and acceptance of Projects with CMC for 5 Years as per the Technical Specification and all terms given in	5000	
4	0.5 Hp Off-Grid Solar PV based Pumping System (DC Surface Pump)	the RFP		
5	0.5 Hp Off-Grid Solar PV based Pumping System (AC Surface Pump)			

- 3.1.1.4. Bidder shall confirm to participate in empanelment and rate contract for different type of project in Bid Form 1 under Clause 7.1.1
- 3.1.1.5. The program of execution of the supply, installation and commissioning of Projects shall be carried out in phased manner as per the work order and instruction of OREDA. However upon issuance of work order, project shall be executed strictly as per the timelines mentioned in the SOW Clause 3.4 of the RFP.

3.2. Roles and Responsibilities

3.2.1. Roles and Responsibilities of the Successful Bidder for the implementation of Projects

3.2.1.1. Design and Engineering

a) The Successful Bidder shall complete the design and engineering of the Project as per the Technical Specification given in SOW Clause 3.3.1.2 using the Equipment as given

in SOW Clause 3.2.1.2 and shall be developed as per the Applicable Law and the Prudent Utility Practices prevailing in Odisha.

b) The Successful Bidder shall ensure that the remote communication facility is available at each at Project location.

The Successful Bidder shall share the remote communication protocol as well as the login credentials (username, password, etc.) to OREDA for each project.

- c) The Successful Bidder shall design for an adequate protection system as per the requirement of the site by taking lightning, wind speed, rainy season, other climatic conditions, sudden surges in voltage and current, etc.
- d) The indicative drawing and design of a module mounting structure that can withstand a wind speed up to 200 km per hour has been provided at SOW Clause 3.3.1.2. However, depending on the actual site conditions, the Successful Bidder may propose for a change in the design of module mounting structures with due certification from a chartered engineer with regards to quality, durability and wind resistance capability for the abovementioned speed and install the same only after getting due approval from the Authorized Representative of OREDA.
- e) The Successful Bidder shall mandatorily visit all the sites and submit single line diagrams indicating all wiring details, connectivity details, etc. as per the Applicable Law and Prudent Utility Practices, prior to the procurement of Equipment and commencement of construction works at the site.
- f) The Successful Bidder shall submit the final civil, mechanical and electrical design & diagram, etc. to OREDA and obtain the approval from OREDA prior to the commencement of installation works.

3.2.1.2. Supply of Equipment

- a) The Successful Bidder shall supply all the Equipment as per the Technical Specification given in SOW Clause 3.3.1.1.
- b) The Successful Bidder shall be responsible for the supply of all Equipment including but not limited to solar photovoltaic modules, module mounting structures, 0.5 hp pump, plumbing materials, and the balance of systems etc. required for off-grid solar pv based micro pumping system.
- c) The Successful Bidder shall be responsible for procuring, packing, forwarding, loading, unloading, safekeeping, and handling of all Equipment including insurance coverage all the time until Acceptance of the Project pursuant to SOW Clause 3.2.1.5.
- d) The Successful Bidder shall be responsible to maintain the spares all the time until the expiry of the CMC Period. In no case, OREDA shall provide any spares until the expiry of CMC Period of the Plant and the Successful Bidder shall be responsible solely for the replacement of the spares for the reasons attributable to the Successful Bidder.

3.2.1.3. Installation

- a) The Successful Bidder shall be responsible for carrying out the installation of all Equipment as per the design, SLDs, etc. approved by OREDA pursuant to SOW Clause 3.2.1.1.
- b) The Successful Bidder shall be responsible for installation of the solar PV water Pumping systems, BOS, solar PV array and required plumbing material as per the technical specifications and standards provided in the tender and testing the same in the presence of Dept Authorized Officer / gram panchayat . In case of sanitary well the float / pedestal arrangement to provide, if necessary.
- c) The system installed shall be away from the water outlet portion and the outlet pipes.
- d) The Successful Bidder shall ensure that there shall not be any invasion/ damage whatsoever to the beneficiary premises due to the installation.

- e) The Successful Bidder shall ensure to have a clean and tidy installation. The Successful Bidder shall ensure to consider the safety aspects into consideration and shall not leave any loose cables to lie on the project site.
- f) The Successful Bidder shall install display boards mentioning the name of the Department, Project capacity, date of Commissioning, date of Acceptance, contact details of OREDA, CRC, and Successful Bidder at prominent places near to the project sites
- g) The Successful Bidder shall install danger boards, safety boards, etc. at suitable locations as per the Applicable Law and Prudent Utility Practices.
- h) The Successful Bidder shall ensure that earthing flats do not touch the walls/or any surface prone to human touch at any place and sufficient insulators shall be provided for the same.
- i) The Successful Bidder shall ensure the protection of life and property likely to be endangered due to the installation of the project.
- j) The installation process shall be documented step-by-step as per the instructions given in the ReSolve Mobile App developed by OREDA through its Customer Relationship Centre (CRC). The Successful Bidder shall mandatorily install the ReSolve Mobile Application from the CRC team and get itself trained if required. The instructions are given in SOW Clause 3.3.1.5.

3.2.1.4. Testing and Commissioning

- a) After completion of installation works, the Successful Bidder shall complete the testing and Commissioning in the presence of the Authorized Representative of OREDA as well as the designated representative of the Department of Agriculture and Farmer Empowerment, Odisha. The committee comprising of the above persons shall be termed as the Commissioning Committee.
- b) The Successful Bidder shall take consultation from the Commissioning Committee on finalizing a date and time of testing and Commissioning.
- c) Upon completion of testing and Commissioning, the Commissioning Committee shall issue the Joint Commissioning Certificate to the Successful Bidder as per the format given in SOW Clause 3.3.1.3.
- d) The testing and Commissioning process shall be documented step-by-step as per the instructions given in the ReSolve Mobile App developed by OREDA through CRC.
- e) The format for the Commissioning Report is given in SOW Clause 3.3.1.2.

3.2.1.5. Acceptance

- a) The performance and health of the Project will be monitored for a period of ninety (90) Days from the date of Commissioning.
- b) The Commissioning Report followed during Commissioning as given in SOW Clause 3.3.1.2 shall be performed again before issuance of the Acceptance Certificate as per format given in SOW Clause 3.3.1.4.
- c) Upon Acceptance of the Project , the Comprehensive Maintenance of the Project shall begin as per SOW Clause 3.3.1.4.

3.2.1.6. Comprehensive Maintenance

- a) The Successful Bidder shall be required to undertake Scheduled Maintenance, Corrective Maintenance, and Breakdown Maintenance during the CMC Period.
- b) The Successful Bidder shall adhere to all maintenance procedures as required from time to time, without any protest or hesitation.
- c) The Successful Bidder shall undertake the Scheduled Maintenance as per the standard maintenance protocol given in SOW Clause 3.3.1.6. The Scheduled Maintenance

process shall be documented step-by-step as per the instructions given in the ReSolve Mobile App developed by OREDA through CRC.

- d) The Successful Bidder shall also undertake Corrective Maintenance and Breakdown Maintenance as and when required upon receipt of service request from CRC or OREDA or Department raised through ReSolve Mobile App or any other medium as suggested by OREDA or Department from time to time. Such service request shall be resolved and made functional within a maximum period of seven (7) Days from the date of such service request raised through ReSolve Mobile App, failing which might restrict the Successful Bidder in participating in the future opportunities of OREDA, subject to the final decision at the discretion of OREDA only.
- e) The Successful Bidder is required to train the Beneficiary for day-to-day Comprehensive Maintenance and upkeep of the Project.
- f) The Successful Bidder shall maintain the safety stock of spares required to Repair and Maintain Project all the time until the expiry of the Work Order and during CMC period.
- g) The Successful Bidder shall establish a local office in Odisha, so as to deliver uninterrupted and sustainable Comprehensive Maintenance during the CMC Period duly headed by a Service Engineer.

3.2.2. Roles and Responsibilities of OREDA

- 3.2.2.1. OREDA shall be responsible for providing its approval on the final Designs and Drawings consisting of the detailed designs, single line diagram, etc. after the obtaining such document from the Successful Bidder pursuant to SOW Clause 3.2.1.1 f).
- 3.2.2.2. All tests and inspections shall be made at the Project site. The Authorized Representative of OREDA shall be entitled at all reasonable times to inspect, supervise and test during the implementation of the Project. Such inspection will not relieve the Successful Bidder of their obligation in the Work Order. OREDA shall have the right to have the tests carried out at its own cost by an independent agency at any point in time.
- 3.2.2.3. For each Off-grid Solar PV based micro pumping System Project, OREDA shall be responsible for making available raw water and sewage system within 5 meters of each finalized location of water kiosk

3.3. Technical details of Project

- 3.3.1. Technical details of project
 - 3.3.1.1. **Technical Specifications**: The Technical Specification of all Equipment are provided in Annexure 7.5.1.
 - 3.3.1.2. **Designs and Drawings**: The Designs and Drawings of the Project are provided in Annexure 7.5.2.
 - 3.3.1.3. **Commissioning Report**: The detailed Commissioning procedure is provided in Annexure 7.5.3.
 - 3.3.1.4. Joint Commissioning Certificate: The format of the Joint Commissioning Certificate is provided in Annexure 7.5.4.
 - 3.3.1.5. Acceptance Certificate: The format of the Acceptance Certificate is provided in Annexure 7.5.5.
 - 3.3.1.6. CRC guidelines: The CRC guidelines are provided in Annexure 7.7.
 - 3.3.1.7. **Scheduled Maintenance**: The detailed procedure and checklist for performing Scheduled Maintenance are provided in Annexure 7.5.6.
 - 3.3.1.8. **Test Certificates**: The required test certificates are provided in Annexure 7.5.7.

3.4. Project Timelines

3.4.1. The following are the Project Timelines for developing the Project:

Activities	Project Timelines
Timeline for empanelment of EPC contractors	
Issue of Letter of Intent by OREDA	T0 (start date)
Acceptance of Letter of Intent by Qualified Bidder(s)	T1= T0 + fifteen (15) days
Issue empanelment order	T2 = T1 + fifteen (15) days
Start of empanelment and rate contract period	T3 = T2 + one (1) day
End of empanelment and rate contract period	T4 = T3 + one (1) year
Timeline for Go-Ahead and Acceptance	
Auto generated Go-Ahead to the Empaneled Bidder(s) as per selection by Beneficiary on the portal	T0 (start date)
Submission of critical documents as per ITB clause 1.8.1.1 by the Empaneled Bidder(s)	T1 = T0 + fifteen (15) days
Commissioning	T2 = T1 + ninety (90) days
System Acceptance	T3 = T2 + ninety (90) days
CMC start date	T4 = T3 + one (1) day
CMC end date	T5 = T4 + five (5) years

T0: start date

4. Qualification Requirement (QR)

Section 4 (QR) contains all the Qualification Requirements that OREDA shall use to evaluate the Technical Bids and qualify Bidders for during the evaluation of Technical Bids.

The Bidder shall fulfill the below Qualification Requirement in order to submit the Bid. Any discrepancy or deviation from the stated Qualification Requirement shall make the Bidder ineligible to submit the Bid and such Bid shall be liable for rejection.

Clause no.	Qualification Requirement	Support document
4.1.1.	Applicability: For Category A and Category B Bidders The Bidder must be a	The Bidder must submit a copy of the relevant documents issued by an appropriate Government authority in India.
	4.1.1.1. company registered under The Indian Companies Act, 1956/ 2013; or	
	4.1.1.2. partnership firm registered under The Indian Partnership Act, 1932; or	
	4.1.1.3. sole proprietorship firm under the relevant laws in India.	
	Note: Joint venture, consortium and subcontracting are not allowed.	
4.1.2.	Applicability: For Category B Bidders only In case the Bidder is a local MSME registered in Odisha, the Bidder must be registered under the MSME Development Act, 2006 in Odisha under Section D, Division 35, Group 351 having NIC 5-digit code of 35105 (Electric power generation using solar energy).	The Bidder being a local MSME must submit a copy of the certificate of registration issued by an appropriate authority. This is applicable only for the MSMEs. The Bidders, other than an MSME, cannot apply for such Projects.
	Such Bidder under Category B shall be exempted from meeting "Technical Qualification Requirement" as per QR Clause 4.3 and "Financial Qualification Requirement" as per QR Clause 4.4, but shall comply "Specific Qualification Requirement" as per QR Clause 4.2and 4.1.3. The local MSME only can apply for the Projects as mentioned in Section 2 (BDS).	The Bidder must submit Bid Form 2.
4.1.3.	Applicability: For Category A and Category B Bidders	The Bidder shall submit a self- certification by an authorized person duly notarized to this
	The Bidder must not be debarred/ blacklisted/ defaulted by any Government, agency, Public Sector Undertaking (PSU), institution/ autonomous organizations in the past.	effect. The Bidder must submit Bid Form 7.

4.1. General Qualification Requirement

Clause no.	Qualification Requirement	Support document
4.2.1.	Applicability: For Category A and Category B Bidders The Bidder must be in possession of the valid "Test Certificates" for the Equipment used in off-grid solar pv based micro pumping Projects, as issued in the name of the OEM from any valid MNRE accredited test labs. Such test certificates must have the IEC and IP standards from any valid MNRE accredited test labs.	The Bidder must declare that it will possess the Test Certificates and data sheets in the name of OEM only along with the authorization letter from Original Equipment Manufacturer (OEM). The Test Certificates and datasheets for particular Equipment must be submitted in the name of a single OEM only. However, the change of OEM is permissible during the course of work on assigning sufficient reason for the same and submission of the latest datasheets and test reports from MNRE approved labs. The Bidder must submit Bid Form 6 of Section 7 (Annexure), as a part of declaration only. Note : The proof of all documents showcasing the possession of such copies of the Test Certificates by the Bidder shall be submitted as per the instructions given under the Letter of Intent and not at the time of Bid submission.
4.2.2.	Applicability: For Category A and Category B Bidders The Bidder must possess established high standards for 'quality' and 'environment health and safety' in line with ISO 9001 and ISO 14001 certifications respectively for the equipment used in Projects.	The Bidder shall declare that it has a copy of ISO certificate for ISO 9001 and ISO 14001 certificates in the name of the Original Equipment Manufacturer (OEM), supported by a letter of authorization from the OEM for its implementation. Note : The documentary evidences shall be submitted as a part of response to the Letter of Intent and prior to issuance of the Work Order, and not at the time of bidding.

4.2. Specific Qualification Requirement

4.3. Technical Qualification Requirement

Clause no.	Qualification Requirement	Support document
4.3.1.	Applicability : For Category A Bidders only The Bidder must be a motor-pump-set manufacturer having sold a cumulative of at least 500 no.s of water pumping system as mentioned under the "Min. experience requirement", in the last three (3) years from the last date of online submission of the Technical Bid.	The Bidder shall submit the letter of awards/ work orders/ contract agreement/sale receipts to showcase the sale of the motor- pump-set

4.4. Financial Qualification Requirement

Clause no.	Qualification Requirement	Support document
4.4.1.	 Applicability: For Category A Bidders only The Bidder must have following an aggregate average annual turnover of not less than 2.0 Crores INR (Two Crore only) in last three (3) financial years from FY17-18, FY18-19 and FY 19-20 from the solar business only. For the above, the Bidder shall provide their unconsolidated audited annual accounts, supported by the work/supply orders. 	The Bidder shall submit a turnover certificate issued by a chartered accountant, as per Bid Form 5 of Section 7 (Annexure). It is important to note that the annual turnover for each financial year shall be the income/ earning/ revenue from the solar business only; and other income (if any) shall not be considered for evaluation.
4.4.2.	Applicability: For Category A Bidders only The Bidder must have a positive net worth in the last financial year FY19-20.	The Bidder shall submit a net worth certificate issued by a chartered accountant, as per Bid Form 5 of Section 7 (Annexure).
	For company, as per the section 2 (57) of The Indian Companies Act, 2013, net worth means the aggregate value of the paid-up share capital and all reserves created out of the profits (securities premium account and debit or credit balance of profit and loss 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.	
	For partnership firm and sole proprietorship firm, as per the methodology certified by the chartered accountant based on the Applicable Law in India.	

5. General Conditions of Contract (GCC)

Section 5 (GCC) contains all general terms and conditions to be applied to the Work Order along with other associated documents mentioned therein. Section 5 (GCC) shall be read in conjunction with Section 6 (SCC) and other documents listed therein, should be a complete document expressing all terms and conditions of the Work Order.

5.1. General

5.1.1. Work Order

- 5.1.1.1. All documents forming part of the Work Order including any Amendment to the Work Order as per GCC Clause 5.1.2, and all parts thereof, are intended to be correlative, complementary, and mutually explanatory.
- 5.1.1.2. The Work Order constitutes all the terms and conditions for the Successful Bidder with respect to the Commissioning, and Acceptance of the Project along with its CMC Period. The CMC shall be executed between OREDA and the Successful Bidder as per the sample format provided in Annexure Clause 7.3.5.
- 5.1.1.3. The Work Order including any Amendment supersedes all communications, negotiations, and agreements (whether written or oral) made prior to the date of issuance of Work Order in case of any confusion with the Bidding Document at any point in time.
- 5.1.1.4. The Work Order shall be read as a whole.

5.1.2. Amendment

5.1.2.1. No Amendment to the Work Order shall be made effective unless it is in writing, is dated, expressly refers to the Work Order, and is signed duly and issued by OREDA based on any amended terms mutually agreed between OREDA and the Successful Bidder or as it is required in the interest of the Project.

5.1.3. Independent Successful Bidder

5.1.3.1. The Successful Bidder shall be completely independent in performing all its obligations under the Work Order. The Work Order does not create any agency, partnership, joint venture, or other joint relationship with OREDA. Subject to the provisions of the Work Order, the Successful Bidder shall be solely responsible for the manner in which all the obligations will be performed. All employees and representatives engaged by the Successful Bidder in connection with the performance of the Work Order shall be under the complete control of the Successful Bidder only and shall not be deemed to be employees of OREDA at any point in time, and nothing contained in the Work Order or in any subcontract awarded by the Successful Bidder to anyone shall be construed to create any contractual relationship between OREDA and any such employees, representatives, engaged by the Successful Bidder.

5.1.4. Non-waiver

5.1.4.1. Any waiver of Successful Bidder's rights, powers, or remedies under the Work Order must be in writing, must be dated and signed duly and issued by OREDA in granting such waiver, and must specify the right and the extent to which it is being waived.

5.1.5. Severability

5.1.5.1. If any provision or condition of the Work Order is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Work Order.

5.1.6. Communications

5.1.6.1. Wherever these conditions provide for issuing approvals, certificates, consents, determinations, notices, requests, and discharges, these communications shall be:

- a) in writing along with a copy being sent to the other Party and delivered against its receipt; and
- b) delivered, sent, or transmitted to the address of either Party, as stated in Work Order.

5.1.7. Law

5.1.7.1. The Work Order shall be governed by and interpreted in accordance with the laws of India.

5.1.8. Language

5.1.8.1. The ruling language of the Work Order shall be in English only.

5.1.9. Integrity Violation

- 5.1.9.1. The Successful Bidder shall observe the highest standard of ethics during the performance of the Work Order.
- 5.1.9.2. Applicable as per ITB Clause 1.1.2.2

5.2. Payment

5.2.1. Total Price

- 5.2.1.1. The Total Price shall be as specified in the Work Order.
- 5.2.1.2. Unless an escalation clause is provided in GCC Clause 5.2.2, the Total Price shall be a firm lump sum amount, non-escalating, and not subject to any alteration, except in the event of a Change Order for the Project issued by OREDA.
- 5.2.1.3. Subject to SOW Clause 3.2.1, the Successful Bidder shall be deemed to have satisfied itself as to the correctness and sufficiency of the Total Price, which shall, except as otherwise provided for in the Work Order, cover all its obligations under the Work Order.

5.2.2. Terms of Payment

- 5.2.2.1. The terms of payment outlining the procedures to be followed are mentioned in Section 6 (SCC).
- 5.2.2.2. No payment made by OREDA herein shall be deemed to constitute acceptance by OREDA of the Project or any part(s) thereof, until the issuance of Acceptance Certificate by OREDA in writing.
- 5.2.2.3. The payment against the undisputed invoice shall be made by OREDA based on the internal processes.
- 5.2.2.4. The currency in which payments are made to the Successful Bidder under this Work Order shall be in Indian Rupees only.

5.2.3. Taxes

- 5.2.3.1. The Tax on the Total Price shall be paid as per the prevailing rules in India at the time of invoicing.
- 5.2.3.2. The Tax Deduction at Source (TDS) shall be deducted as per the prevailing rules in India at the time of the payment.

5.2.4. Performance Security

5.2.4.1. The Successful Bidder shall submit the Performance Security as per ITB Clause 1.8.2.

5.2.5. Incoterms

5.2.5.1. Unless inconsistent with any provision of the Work Order, the meaning of any trade term and the rights and obligations of Parties thereunder shall be as prescribed by Incoterms.

5.3. Intellectual Property

5.3.1. License/Use of Technical Information

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- 5.3.1.1. For the Commissioning until Acceptance of the Project and during the CMC Period, the Successful Bidder hereby grants a non-exclusive and non-transferable license (without the right to sub-license) to OREDA under the patents, utility models or other industrial property rights owned by the Successful Bidder or by a third party from whom the Successful Bidder has received the right to grant licenses thereunder, and shall also grant to OREDA a non-exclusive and non-transferable right (without the right to sub-license) to use the know-how and other technical information disclosed to OREDA under the Work Order. Nothing contained herein shall be construed as transferring ownership of any patent, utility model, trademark, design, copyright, know-how, or other intellectual property rights from the Successful Bidder or any third party to OREDA.
- 5.3.1.2. The copyright in all drawings, documents and other materials containing data and information furnished to OREDA by the Successful Bidder herein shall remain vested in the Successful Bidder or, if they are furnished to OREDA directly or through the Successful Bidder by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.

5.3.2. Confidential Information

- 5.3.2.1. The Parties shall keep confidential and shall not, without the written consent of the other Party, divulge to any third party any documents, data or other information furnished directly or indirectly by the other Party hereto, whether such information has been furnished prior to, during or following termination of the Work Order. Notwithstanding the above, a Party may furnish to its third parties such documents, data and other information it receives from the other Party to the extent required for the third parties to perform all the obligations under the Work Order, in which event the Party shall obtain from such third parties an undertaking of confidentiality similar to that imposed on the Party under this GCC Clause 5.3.2 and submit a copy of the same to the other Party with an immediate effect.
- 5.3.2.2. A Party shall not use such documents, data, and other information received from the other Party for any purpose other than for this Project and services as are required for the performance of the Work Order.
- 5.3.2.3. The obligation of a Party under GCC Clauses 5.3.2.1 and 5.3.2.2 above, however, shall not apply to that information which
 - a) now or hereafter enters the public domain through no fault of that Party;
 - b) can be proven to have been possessed by that Party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other Party hereto; and
 - c) otherwise lawfully becomes available to that Party from a third party that has no obligation of confidentiality.
- 5.3.2.4. The above provisions of this GCC Clause 5.3.2 shall not in any way modify any undertaking of confidentiality given by either of the Parties hereto prior to the date of the Work Order in respect of the Project or any part thereof.
- 5.3.2.5. The provisions of this GCC Clause 5.3.2 shall survive termination, for whatever reason, of the Work Order.

5.4. Execution of the Project

5.4.1. Representatives

5.4.1.1. Authorized Representative of OREDA

- a) The name of the Authorized Representative of OREDA shall be generally mentioned in the Work Order. If the Authorized Representative of OREDA is not named in the Work Order, then within seven (7) Days of the Effective Date, OREDA shall appoint and notify the Successful Bidder in selecting an Authorized Representative of OREDA. OREDA may from time to time appoint some other person as the Authorized Representative of OREDA as deemed necessary in place of the person previously so appointed and shall give notice of the name of such other person as Authorized Representative of OREDA to the Successful Bidder as required. Such an appointment shall only take effect upon the date of issuance of such notice by OREDA. The Authorized Representative of OREDA shall represent and act for OREDA at all times during the performance of the Work Order. All notices, instructions, orders, certificates, approvals and all other communications under the Work Order shall be given by the Authorized Representative of OREDA, except as herein otherwise provided.
- b) All notices, instructions, information, and other communications given by the Successful Bidder to OREDA under the Work Order shall be given to the Authorized Representative of OREDA, except as herein otherwise provided.
- 5.4.1.2. Project Manager, Construction Manager, and CMC Manager
 - a) The name of the Project Manager representing the Successful Bidder shall be generally mentioned in the Work Order. If the Successful Bidder's representative as Project Manager is not named in the Work Order, then within seven (7) Days of the Effective Date, the Successful Bidder shall appoint the Project Manager and shall request OREDA in writing to approve the Project Manager so appointed. If OREDA makes no objection to the appointment within seven (7) Days, the Project Manager shall be deemed to have been approved. If OREDA objects to the appointment within seven (7) Days, then the Successful Bidder shall appoint a replacement within seven (7) Days of such objection, and the foregoing provisions of this GCC Clause 5.4.1.2a) shall apply thereto.
 - b) The Project Manager shall represent and act for the Successful Bidder at all times during the performance of the Work Order and shall give to the Authorized Representative of OREDA all the Successful Bidder's notices, instructions, information, and all other communications under the Work Order.
 - c) All notices, instructions, information, and all other communications given by OREDA or the Authorized Representative of OREDA to the Successful Bidder under the Work Order shall be given to the Project Manager or, in its absence, its deputy, except as herein otherwise provided.
 - d) The Successful Bidder shall not revoke the appointment of the Project Manager without OREDA's prior written consent. If OREDA consents thereto, the Successful Bidder shall appoint some other person as the Project Manager, pursuant to the procedure set out in GCC Clause 5.4.1.2a).
 - e) The Project Manager may, subject to the written approval of OREDA, at any time delegate to any person any of the powers, functions and authorities vested in him or her. Any such delegation may be revoked at any time; however, any such delegation or revocation shall be subject to a prior notice signed by the Project Manager and shall specify the powers, functions and authorities thereby delegated or revoked. No such delegation or revocation shall take effect unless and until a copy thereof has been delivered to the Authorized Representative of OREDA.
 - f) Any act or exercise by any person of powers, functions and authorities so delegated to him or her in accordance with this GCC Clause 5.4.1.2e) shall be deemed to be an act or exercise by the Project Manager.

- g) From the commencement of works of the Project at the site until installation, Commissioning and Acceptance, the Project Manager shall additionally appoint a suitable person as the Construction Manager. The Construction Manager shall supervise all work done at the site by the Successful Bidder and shall be present at the site as required during the performance of the Work Order in accordance with the terms of the Work Order. Whenever the Construction Manager is absent from the site, the Project Manager shall appoint a suitable person to act as the Construction Manager's deputy with prior notice of seven (7) Days before such a replacement and shall inform OREDA in writing prior to such changes.
- h) From the commencement of the CMC Period until its expiry, the Project Manager shall appoint a suitable person as the CMC Manager. The CMC Manager shall supervise all work done at the site by the Successful Bidder and shall be present at the site as required during the performance of the Work Order in accordance with the terms of the Work Order. Whenever the CMC Manager is absent from the site, the Project Manager shall appoint a suitable person to act as the CMC Manager's deputy with prior notice of seven (7) Days before such a replacement and shall inform OREDA in writing prior to such changes.
- i) OREDA may by notice to the Successful Bidder object to any representative or person employed by the Successful Bidder in the execution of the Work Order who, in the reasonable opinion of OREDA, may behave inappropriately, may be incompetent or negligent, or may commit a serious breach of the site regulations. OREDA shall provide writing of the same, whereupon the Successful Bidder shall remove such person from the Project with an immediate effect.
- j) If any representative or person employed by the Successful Bidder is removed in accordance with GCC Clause 5.4.1.2i), the Successful Bidder shall, where required, promptly appoint a replacement; failure to which will lead to a material breach in the Work Order.

5.4.2. Work program

5.4.2.1. Successful Bidder's Organization

Within thirty (30) Days from the Effective Date, the Successful Bidder shall submit to OREDA an organization chart showing the proposed team to be established by the Successful Bidder for carrying out work on the Project within the Project Timelines for achieving Commissioning and Acceptance as mentioned in SOW Clause 3.4. The organization chart shall include the identities of the key personnel and the short curricula vitae of such key personnel to be employed. The Successful Bidder shall promptly inform the Authorized Representative of OREDA in writing of any revision or alteration of such an organization chart, as applicable.

5.4.2.2. Detailed Workplan

Within thirty (30) Days from the Effective Date, the Successful Bidder shall submit to the Authorized Representative of OREDA a Detailed Workplan, made in a form acceptable to the Authorized Representative of OREDA and showing the sequence in which it proposes to achieve the Commissioning and Acceptance in line with the Project Timelines.

The Successful Bidder shall update the actual achievement against the Detailed Workplan as and when appropriate or when required by the Authorized Representative of OREDA, but without modification in the Project Timelines and any extension granted in accordance with GCC Clause 5.7.2 and shall submit all such revisions to the Authorized Representative of OREDA.

5.4.2.3. Progress of Detailed Workplan

If at any time the Successful Bidder's actual progress falls behind the Detailed Workplan, or it becomes apparent that it will so fall behind, the Successful Bidder shall promptly prepare and submit to the Authorized Representative of OREDA a revised Detailed Workplan without changing any timelines with reference to the Project Timelines, taking into account the prevailing circumstances, and shall notify the Authorized Representative of OREDA of the steps being taken to expedite progress so as to achieve the Commissioning and Acceptance

of the Project within the Project Timelines, any extension thereof entitled under GCC Clause 5.7.2, or any extended period as may otherwise be notified by OREDA.

5.5. Guarantees and Liabilities

5.5.1. Delay Liquidated Damages

- 5.5.1.1. The Successful Bidder guarantees that it shall achieve the Commissioning of the Project as per the Project Timelines or any extension thereof entitled under GCC Clause 5.7.2.
- 5.5.1.2. In case of failure on the part of the Successful Bidder to achieve the Commissioning timelines pursuant to GCC Clause 5.5.1.1, the Successful Bidder shall pay to OREDA a Delay Liquidated Damage for a sum equivalent to half percent (0.5%) of the Total Price for each week of the delay from the target date of Commissioning, to be calculated on pro-rata basis for each Day of delay, subject to a maximum of three percent (3%) of the Total Price.
- 5.5.1.3. Once the maximum limit of three (3%) is reached, OREDA may consider terminating the Work Order without prejudice to the other remedies of the Work Order. However, the OREDA may at own discretion allow reasonable time extension upon the written application of the Successful Bidder. If the delay is considered intentional or due to the negligence of the Successful Bidder, no extension can be allowed with the imposition of Delay Liquidated Damages. If the delay is considered to be genuine, then a suitable time extension can be allowed with/ without the imposition of the delay Liquidated Damages, to be evaluated on a case-to-case basis.
- 5.5.1.4. The payment of liquidated damages shall not in any way relieve the Successful Bidder from any of its obligations to complete the Project or from any other obligations and liabilities of the Successful Bidder under the Work Order.
- 5.5.1.5. The Delay Liquidated Damages shall be inclusive of all applicable taxes as applicable under the laws of India and such applicable taxes shall be borne by the Successful Bidder only.
- 5.5.1.6. The Successful Bidder acknowledges that the Delay Liquidated Damages payable by the Successful Bidder under this Work Order are a genuine pre-estimate of the losses suffered by OREDA and the compensation as contemplated is reasonable and not by way of any penalty.

5.5.2. Warranty

5.5.2.1. The details of the provisions related to the Warranty of the Equipment under the Project are mentioned in Section 6 (SCC).

5.5.3. Defect Liability

- 5.5.3.1. The Successful Bidder warrants that the Projector any part thereof shall be free from defects in the design, engineering, materials and workmanship of the Project supplied and of the work executed.
- 5.5.3.2. The Defect Liability Period shall be five (5) Years from the date of Commissioning of the Project.
- 5.5.3.3. If during the Defect Liability Period any defect should be found in the design, engineering, materials and workmanship of the Project supplied or of the work executed by the Successful Bidder, the Successful Bidder shall promptly, in consultation and agreement with OREDA regarding appropriate remedying of the defects, and at its cost, repair, replace or otherwise make good such defect as well as any damage to the Project caused by such defect.
- 5.5.3.4. OREDA shall give the Successful Bidder a notice stating the nature of any such defect together with all available evidence thereof, promptly following the discovery thereof. OREDA shall afford all reasonable opportunities for the Successful Bidder to inspect any such defect.
- 5.5.3.5. The Successful Bidder may, with the consent of OREDA, remove from the site any Projector any part of the Project that are defective if the nature of the defect, and/or any damage to the Project caused by the defect, is such that repairs cannot be expeditiously carried out at the site.

5.5.3.6. If the repair, replacement or making good is of such a character that it may affect the efficiency of the Projector any part thereof, OREDA may give to the Successful Bidder a notice requiring that tests of the defective part of the Project shall be made by the Successful Bidder immediately upon completion of such remedial work, whereupon the Successful Bidder shall carry out such tests.

If such part fails the tests, the Successful Bidder shall carry out further repair, replacement or making good, as the case may be, until that part of the Project passes such tests. The tests shall be agreed upon by OREDA and the Successful Bidder.

- 5.5.3.7. If the Successful Bidder fails to commence the work necessary to remedy such defect or any damage to the Project caused by such defect within a reasonable time (which shall in no event be considered to be less than seven (7) Days), OREDA may, following notice to the Successful Bidder, proceed to do such work through a third party, and the reasonable costs incurred by OREDA in connection therewith shall be paid to OREDA by the Successful Bidder or may be deducted by OREDA from any monies due to the Successful Bidder or claimed under the Performance Security.
- 5.5.3.8. If the Projector any part thereof cannot be used by reason of such defect and/or making good of such defect, the Defect Liability Period of the Projector such part, as the case may be, shall be extended by a period equal to the period during which the Projector such part cannot be used by OREDA because of any of the aforesaid reasons.
- 5.5.3.9. Except as provided in GCC Clauses 5.5.2 and GCC Clause 5.6.3, the Successful Bidder shall be under no liability whatsoever and howsoever arising, and whether under the Work Order or at law, in respect of defects in the Projector any part thereof, the design or engineering or work executed that appear after Acceptance of the Projector any part thereof, except where such defects are the result of the gross negligence, fraud, criminal or willful action of the Successful Bidder.

5.5.4. Patent Indemnity

5.5.4.1. The Successful Bidder shall, subject to OREDA's compliance with GCC Clause 5.5.4.2, indemnify and hold harmless OREDA and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, which OREDA may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright or other intellectual property right registered or otherwise existing at the date of the Work Order by reason of Commissioning and Acceptance of the Project.

Such indemnity shall not cover any use of the Projector any part thereof other than for the purpose indicated by or to be reasonably inferred from the Work Order, any infringement resulting from the use of the Projector any part thereof, or any products produced thereby in association or combination with any other equipment, plant or materials not supplied by the Successful Bidder, pursuant to the Work Order.

5.5.4.2. If any proceedings are brought or any claim is made against OREDA arising out of the matters referred to in GCC Clause 5.5.4.1, OREDA shall promptly give the Successful Bidder a notice thereof, and the Successful Bidder may at its own expense and in OREDA's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

If the Successful Bidder fails to notify OREDA within seven (7) Days after receipt of such notice that it intends to conduct any such proceedings or claim, then OREDA shall be free to conduct the same on its own behalf. Unless the Successful Bidder has so failed to notify OREDA within the seven (7) Day period, OREDA shall make no admission that may be prejudicial to the defense of any such proceedings or claim.

OREDA shall, at the Successful Bidder's request, afford all available assistance to the Successful Bidder in conducting such proceedings or claim, and shall be reimbursed by the Successful Bidder for all reasonable expenses incurred in so doing or may be deducted by OREDA from any monies due to the Successful Bidder or claimed under the Performance Security.

5.5.5. Limitation of Liability

- 5.5.5.1. Except in cases of criminal negligence or willful misconduct,
 - a) the Successful Bidder shall not be liable to OREDA, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Successful Bidder to pay the Delay Liquidated Damages to OREDA; and
 - b) the maximum liability of the Successful Bidder to OREDA, whether under the Work Order, in tort or otherwise, shall not exceed ten percent (10%) of the Total Price.

5.6. Risk Distribution

5.6.1. Transfer of Ownership

- 5.6.1.1. The ownership of the Project shall pass on to OREDA on fulfillment of the following:
 - a) Issuance of a certificate by the Successful Bidder stating that the Successful Bidder is free and clear from any and all claims, liens, security interest, encumbrances, unpaid vendors'/ suppliers' lien or otherwise, arising out of or in connection to the performance of the Work Order as per Annexure Clause 7.6; and
 - b) Issuance of Acceptance Certificate by OREDA.

5.6.2. Risk

- 5.6.2.1. Notwithstanding anything to the contrary in this Contract, the care, custody and the risk in relation to the entire Project shall pass on to OREDA on fulfillment of the following:
 - a) Issuance of Acceptance Certificate by OREDA; and
 - b) Issuance of release and waiver of lien-free certificate by the Successful Bidder.

5.6.3. Loss of or Damage to Property; Accident or Injury to Workers; Indemnification

- 5.6.3.1. The Successful Bidder shall indemnify and hold harmless OREDA and its employees, officers and advisors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, in respect of the death or injury of any person or loss of or damage to any property other than the Project, arising in connection with the implementation of the Project and by reason of the negligence of the Successful Bidder.
- 5.6.3.2. If any proceedings are brought or any claim is made against OREDA that might subject the Successful Bidder to liability under GCC Clause 5.6.3.1, OREDA shall promptly give the Successful Bidder a notice thereof and the Successful Bidder may at its own expense and in OREDA's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

If the Successful Bidder fails to notify OREDA within seven (7) Days after receipt of such notice that it intends to conduct any such proceedings or claim, then OREDA shall be free to conduct the same on its own behalf. Unless the Successful Bidder has so failed to notify OREDA within the seven (7) Day period, OREDA shall make no admission that may be prejudicial to the defense of any such proceedings or claim.

OREDA shall, at the Successful Bidder's request, afford all available assistance to the Successful Bidder in conducting such proceedings or claim, and shall be reimbursed by the Successful Bidder for all reasonable expenses incurred in so doing or may be deducted by OREDA from any monies due to the Successful Bidder or claimed under the Performance Security.

5.6.4. Insurance

5.6.4.1. The Empaneled Vendor shall at its expense take out and maintain in effect, or cause to be taken out and maintained in effect until the issuance of the Acceptance Certificate, all necessary insurances. The Bid price is to be inclusive of all insurances taken.

5.6.5. Change in Laws and Regulations

5.6.5.1. If, after the last date of online Bid submission, any law, regulation, ordinance, order or by-law having the force of law is enacted, promulgated, abrogated or changed which shall be deemed to include any change in interpretation or application by the competent authorities, that subsequently affects the costs and expenses of the Successful Bidder and/or the time for achieving the Commissioning and Acceptance along with the Work Order price shall be correspondingly increased or decreased, and/or the Time for achieving Commissioning and Acceptance shall be reasonably adjusted to the extent that the Successful Bidder has thereby been affected in the performance of any of its obligations under the Work Order. Notwithstanding the foregoing, such additional or reduced costs shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable.

5.6.6. Force Majeure

- 5.6.6.1. "Force Majeure" shall mean any event beyond the reasonable control of OREDA or of the Successful Bidder, as the case may be, and which is unavoidable notwithstanding the reasonable care of the Party affected, and shall include, without limitation, the following:
 - a) war, hostilities or warlike operations whether a state of war be declared or not, invasion, an act of foreign enemy and civil war;
 - b) rebellion, revolution, insurrection, mutiny, usurpation of a civil or military government, conspiracy, riot, civil commotion and terrorist acts;
 - c) confiscation, nationalization, mobilization, commandeering or requisition by or under the order of any government or de jure or de facto authority or ruler or any other act or failure to act of any local state or national government authority;
 - d) strike, sabotage, lockout, embargo, import restriction, port congestion, lack of usual means of public transportation and communication, industrial dispute, shipwreck, shortage or restriction of power supply, epidemics, pandemics, lockdowns, quarantine and plague;
 - e) earthquake, landslide, volcanic activity, fire, flood or inundation, tidal wave, typhoon or cyclone, hurricane, storm, lightning, or other inclement weather condition, nuclear and pressure waves or other natural or physical disasters; and
 - f) shortage of labor, materials or utilities where caused by circumstances that are themselves Force Majeure.
- 5.6.6.2. If either party is prevented, hindered or delayed from or in performing any of its obligations under the Work Order by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances thereof within seven (7) Days after the occurrence of such event.
- 5.6.6.3. The Party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Work Order for so long as the relevant event of Force Majeure continues and to the extent that such party's performance is prevented, hindered or delayed. The Time for Completion shall be extended in accordance with GCC Clause 5.7.2.
- 5.6.6.4. The Party or Parties affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect thereof upon its or their performance of the Work Order and to fulfill its or their obligations under the Work Order, but without prejudice to either party's right to terminate the Work Order under GCC Clause 5.6.6.6.
- 5.6.6.5. No delay or nonperformance by either party hereto caused by the occurrence of any event of Force Majeure shall
 - a) constitute a default or breach of the Work Order, or
 - b) if and to the extent that such delay or nonperformance is caused by the occurrence of an event of Force Majeure.

- 5.6.6.6. If the performance of the Work Order is substantially prevented, hindered or delayed for a single period of more than sixty (60) Days or an aggregate period of more than one hundred and twenty (120) Days on account of one or more events of Force Majeure during the currency of the Work Order, the Parties will attempt to develop a mutually satisfactory solution, failing which either party may terminate the Work Order by giving notice to the other, but without prejudice to either party's right to terminate the Work Order.
- 5.6.6.7. In the event of termination pursuant to GCC Clause 5.6.6.6, the rights and obligations of OREDA and the Successful Bidder shall be as specified in GCC Clause 5.7.4.

5.7. Change in Work Order Elements

5.7.1. Change Order

- 5.7.1.1. A Change Order shall be issued only by OREDA. Any change made necessary because of a default by the Successful Bidder in the performance of its obligations shall not be considered a Change Order.
- 5.7.1.2. Change Orders may be initiated by OREDA at any time by the issuance of a Change Order notice to the Successful Bidder. The Successful Bidder shall not make any alteration and/ or modification of the Project unless the OREDA instructs or approves a Change Order in writing.
- 5.7.1.3. If the Owner issues a Change Order notice, the increase could in the range of (one hundred percent) 100% of the total bidding quantum and there shall be no change in the prices as quoted by the Bidder in its Price Bid. There shall be no change in Project Timelines.

5.7.2. Extension of achieving Commissioning and Acceptance

- 5.7.2.1. The Project Timelines as specified in the SOW Clause 3.4 shall be extended if the Successful Bidder is delayed or impeded in the performance of any of its obligations under the Work Order by reason of any of the following:
 - a) any occurrence of Force Majeure as provided in GCC Clause 5.6.6,
 - b) by such period as shall be fair and reasonable in all the circumstances and as shall fairly reflect the delay or impediment sustained by the Successful Bidder, subject to the final decision of OREDA.

5.7.3. Suspension

- 5.7.3.1. OREDA may request, by notice to the Successful Bidder, to order the Successful Bidder to suspend performance of any or all of its obligations under the Work Order. Such notice shall specify the obligation of which performance is to be suspended, the effective date of the suspension and the reasons therefor. The Successful Bidder shall thereupon suspend performance of such obligation, except those obligations necessary for the care or preservation of the Project, until ordered in writing to resume such performance by OREDA.
- 5.7.3.2. If the Successful Bidder's performance of its obligations is suspended or the rate of progress is reduced pursuant to GCC Clause 5.7.3, then the Project Timeline shall be extended in accordance with GCC Clause 5.7.2.1.
- 5.7.3.3. During the period of suspension, the Successful Bidder shall not remove from the site any Project, any part of the Projector any Successful Bidder's tools and tackles, without the prior written consent of OREDA.

5.7.4. Termination

- 5.7.4.1. Termination for OREDA's Convenience
 - a) OREDA may at any time terminate the Work Order for any reason by giving the Successful Bidder a notice of termination that refers to this GCC Clause 5.7.4.1.
 - b) Upon receipt of the notice of termination as per the GCC Clause 5.7.4.1a), the Successful Bidder shall either immediately or upon the date specified in the notice of termination

- i. cease all further work, except for such work as OREDA may specify in the notice of termination for the sole purpose of protecting that part of the Project already executed, or any work required to leave the site in a clean and safe condition,
- ii. terminate all subcontracts, except those to be assigned to OREDA pursuant to GCC Clause 5.7.4.1iv.b,
- iii. remove all Successful Bidder's tools and tackles from the site, repatriate the Successful Bidder's and its personnel from the site, remove from the site any wreckage, rubbish and debris of any kind, and leave the whole of the site in a clean and safe condition, and
- iv. subject to the payment specified in GCC Clause 5.7.4.1c),
 - a. deliver to OREDA the parts of the Project executed by the Successful Bidder up to the date of termination, and
 - b. deliver to OREDA all non-proprietary drawings, specifications and other documents prepared by the Successful Bidder as on the date of termination in connection with the Project.
- c) In the event of termination of the Work Order under GCC Clause 5.7.4.1a), OREDA shall pay to the Successful Bidder the following amounts:
 - i. the Work Order Price, properly attributable to the parts of the Project executed by the Successful Bidder as of the date of termination
- 5.7.4.2. Termination for Successful Bidder's Default
 - a) OREDA, without prejudice to any other rights or remedies it may possess, may terminate the Work Order forthwith in the following circumstances by giving a notice of termination and its reasons therefor to the Successful Bidder, referring to this GCC Clause 5.7.4.2:
 - i. if the Successful Bidder becomes bankrupt or insolvent, has a receiving order issued against it, compounds with its creditors, or, if the Successful Bidder is a corporation, a resolution is passed or order is made for its winding up, other than a voluntary liquidation for the purposes of amalgamation or reconstruction, a receiver is appointed over any part of its undertaking or assets, or if the Successful Bidder takes or suffers any other analogous action in consequence of debt
 - ii. if the Successful Bidder assigns or transfers the Work Order or any right or interest therein in violation of the provision of GCC Clause 5.7.5.
 - iii. if the Successful Bidder, in the judgment of OREDA has engaged in Integrity Violation practices, as defined in GCC Clause 5.1.9.
 - b) If the Successful Bidder
 - i. has abandoned or repudiated the Work Order
 - ii. has without valid reason failed to commence work on the Project promptly or has suspended the progress of Work Order performance for a prolonged period even after receiving a written instruction from OREDA to proceed
 - iii. persistently fails to execute the Work Order in accordance with the Work Order or persistently neglects to carry out its obligations under the Work Order without just cause
 - iv. refuses or is unable to provide sufficient materials, services or labour to execute and complete the Project in the manner specified in the Project Timelines as per SOW Clause 3.4 at rates of progress that give reasonable assurance to OREDA that the Successful Bidder can attain Commissioning and Acceptance of the Project, then OREDA may, without prejudice to any other rights it may possess under the Work Order, give notice to the Successful Bidder stating the nature of the default and requiring the Successful Bidder to remedy the same. If the Successful Bidder fails to remedy or to take steps to remedy the same

within fourteen (14) Days of its receipt of such notice, then OREDA may terminate the Work Order forthwith by giving a notice of termination to the Successful Bidder that refers to this GCC Clause 5.7.4.2.

- c) Upon receipt of the notice of termination under GCC Clause 5.7.4.2, the Successful Bidder shall, either immediately or upon such date as is specified in the notice of termination,
 - i. cease all further work, except for such work as OREDA may specify in the notice of termination for the sole purpose of protecting that part of the Project already executed, or any work required to leave the site in a clean and safe condition,
 - ii. terminate all subcontracts, except those to be assigned to OREDA pursuant to GCC Clause 5.7.4.1b,
 - iii. deliver to OREDA the parts of the Project executed by the Successful Bidder up to the date of termination complete in all respect, and
 - iv. deliver to OREDA all drawings, specifications and other documents prepared by the Successful Bidder as on the date of termination in connection with the Project.
- d) OREDA may enter upon the site, expel the Successful Bidder, and complete the Project itself or by employing any third party. OREDA may, to the exclusion of any right of the Successful Bidder over the same, take over and use with the payment of a fair rental rate to the Successful Bidder, with all the maintenance costs to the account of OREDA and with an indemnification by OREDA for all liability including damage or injury to persons arising out of OREDA's use of such Equipment, any Successful Bidder's equipment owned by the Successful Bidder and on the site in connection with the Project for such reasonable period as OREDA considers expedient to achieve the Commissioning and Acceptance.
- e) Upon completion of the Project or at such earlier date as OREDA thinks appropriate, OREDA shall give notice to the Successful Bidder that such Successful Bidder's equipment will be returned to the Successful Bidder at or near the site and shall return such Successful Bidder's equipment to the Successful Bidder in accordance with such notice. The Successful Bidder shall thereafter without delay and at its cost remove all Successful Bidder's tools and tackles from the site, repatriate the Successful Bidder's personnel from the site, remove from the site any wreckage, rubbish and debris of any kind, and leave the whole of the site in a clean and safe condition.
- f) Subject to GCC Clause 5.7.4.2g), the Successful Bidder shall be entitled to be paid the Work Order price attributable to the Project executed as of the date of termination, the value of any unused or partially used Project on the site, and the costs, if any, incurred in protecting the Project and in leaving the site in a clean and safe condition pursuant to GCC Clause 5.7.4.2c)i. Any sums due to OREDA from the Successful Bidder accruing prior to the date of termination shall be deducted from the amount to be paid to the Successful Bidder under this Work Order.
- g) If OREDA completes the Project, the cost of completing the Project by OREDA shall be determined.
 - i. If the sum that the Successful Bidder is entitled to be paid, pursuant to GCC Clause 5.7.4.2f), plus the reasonable costs incurred by OREDA in completing the Project, exceeds the Total Price mentioned in the Work Order, the Successful Bidder shall be liable for such excess.
 - ii. If such excess is greater than the sums due to the Successful Bidder under GCC Clause 5.7.4.2f), the Successful Bidder shall pay the balance to OREDA.
- h) OREDA and the Successful Bidder shall agree, in writing, on the computation described above and the manner in which any sums shall be paid.

- 5.7.4.3. In this GCC Clause 5.7.4, the expression "Project executed" shall include all work executed, Installation Services provided, and all Project acquired, or subject to a legally binding obligation to purchase, by the Successful Bidder and used or intended to be used for the purpose of the Project, up to and including the date of termination.
- 5.7.4.4. In this GCC Clause 5.7.4, in calculating any monies due from OREDA to the Successful Bidder, the account shall be taken of any sum previously paid by OREDA to the Successful Bidder under the Work Order.

5.7.5. Assignment

- 5.7.5.1. No Party shall, without the prior consent of the other Party, assign to any Person any benefit of or obligation under this Work Order in whole or in part. Such an assignment, if approved by the other Party, shall not relieve the assigning Party from any obligations, duty, or responsibility under this Work Order.
- 5.7.5.2. The Successful Bidder consents to the creation by OREDA of security over or assignment of its rights and obligations under this Work Order including the Performance Security provided hereunder by the Successful Bidder in favour of OREDA.

5.8. Disputes and Arbitration

5.8.1. Mutual Settlement

- 5.8.1.1. If any dispute or difference shall arise between OREDA and the Successful Bidder out of, relating to or in connection with the Work Order (including its existence, breach, termination or validity) or the performance of the Comprehensive Maintenance under the Work Order, it shall, in the first instance be referred to the Chief Executive, OREDA and the Successful Bidder's senior management. The Chief Executive, OREDA shall make every effort to amicably resolve the dispute or differences arising between the Parties and provide its written decision within a maximum time period of fifteen (15) Days of the dispute being referred to it by either Party.
- 5.8.1.2. If the Chief Executive, OREDA has given its written decision to the Parties and no claim to arbitration has been communicated to it by either Party within two (2) Days from receipt of such notice, the said decision shall become final and binding on the Parties.
- 5.8.1.3. In the event that the Chief Executive, OREDA fails to provide its decision within the above said period after being requested as aforesaid, or in the event that either OREDA or the Successful Bidder is dissatisfied with any such decision, either Party may, within fifteen (15) Days after the date on which such decision is required to be provided in accordance with GCC Clause 5.8.1.1, whether the decision is provided by the Chief Executive, OREDA during such period or not, refer the matter to the Energy Secretary to the Government of Odisha for a resolution.
- 5.8.1.4. The Energy Secretary to the Government of Odisha shall make every effort to amicably resolve the dispute or differences arising between the Parties and provide its written decision within a maximum time period of seven (7) Days of the dispute being referred to it by either Party.
- 5.8.1.5. In the event that the Energy Secretary to the Government of Odisha fails to provide its decision within the above said period after being requested as aforesaid, or in the event that either OREDA or the Successful Bidder is dissatisfied with any such decision, either Party may, within fifteen (15) Days after the date on which such decision is required to be provided in accordance with GCC Clause 5.8.1.4, whether the decision is provided by the concerned Secretary of the admin department to the Government of Odisha during such period or not, refer the matter in dispute to arbitration as hereinafter provided in GCC Clause 5.8.2.
- 5.8.1.6. The Successful Bidder shall continue to perform its obligations under this Contract during this mutual settlement.

5.8.2. Arbitration

5.8.2.1. If disputes or differences between the Parties are not resolved under Clause 5.8.1, the same shall be referred for arbitration under the Indian Arbitration and Conciliation Act, 1996.

- 5.8.2.2. The arbitral tribunal shall consist of a sole arbitrator, who shall be appointed by the Parties mutually, in accordance with the Arbitration and Conciliation Act, 1996.
- 5.8.2.3. The Successful Bidder shall continue to perform its obligations under this Contract during the arbitration proceedings.
- 5.8.2.4. The arbitration proceedings shall be in English and shall take place in Bhubaneswar, Odisha. The courts in Bhubaneswar, Odisha shall have jurisdiction on any matter connected with or arising under this Contract. The law governing the arbitration and the process shall be Indian law only.
- 5.8.2.5. The arbitration shall be the sole and exclusive remedy between the Parties regarding the dispute referred to arbitration and any claims, counterclaims, issues or accountings presented to the tribunal in connection with such dispute.
- 5.8.2.6. The award rendered in any arbitration commenced hereunder shall be final, conclusive, and binding on the Parties.
- 5.8.2.7. The Parties hereby undertake to implement the award with an immediate effect.

6. Special Conditions of Contract (SCC)

Section 6 (SCC) shall supplement the Clauses mentioned in Section 5 (GCC). Whenever there are a conflict or interpretation issues, the provisions herein shall prevail over those in Section 6 (SCC). The Clause number of Section 6 (SCC) is the corresponding Clause number of Section 5 (GCC).

6.1. Specific provisions of GCC

SCC Clause	GCC Clause	Detailed Clause				
6.1.1.	GCC Clause	Payment:				
	5.2.2.1	The payment shall be made in the following manner:				
		Milestone	Payment	Support documents		
		On achievement of Commissioning of the Project	term Eighty percent (80%) of the Total Price along with applicable Tax at the time of invoicing, as specified in the Works Order.	 The payment shall be made upon due verification by OREDA on the following documents: Joint Commissioning Certificate (JCC) Warranty certificates GPS based photograph Web-enabled generation report I-V & P-V Curves of Solar photovoltaic modules, as applicable Submission of executed version of CMC as per the sample format provided in Annexure Clause 7.3.5 CMC Manual Dos & Don'ts in the form of a booklet Proof of conducting the training programs Photographs of all installations in the specified manner Compliance to CRC process using the ReSolve mobile application Commissioning Report Acceptance Certificate 		
		of Acceptance of the Project	percent (10%) of the Total Price along with applicable	 Acceptance Certificate Performance report of Project Acceptance Report 		
			tax at the time of invoicing, as specified in the Works Order.			

SCC Clause	GCC Clause reference	Detailed Clause			
		On completion of CMC for 1 st year from commissioning of the Project	Two percent (2%) of the Total Price along with applicable tax at the time of invoicing, as specified in the Works Order.	•	CMC Performance report of Project from OREDA as per Annexure Clause 7.5.8
		On completion of CMC for 2 nd year from commissioning of the Project	Two percent (2%) of the Total Price along with applicable tax at the time of invoicing, as specified in the Works Order.	•	CMC Performance report of Project from OREDA as per Annexure Clause 7.5.8
		On completion of CMC for 3 rd year from commissioning of the Project	Two percent (2%) of the Total Price along with applicable tax at the time of invoicing, as specified in the Works Order.	•	CMC Performance report of Project from OREDA as per Annexure Clause 7.5.8
		On completion of CMC for 4 th year from commissioning of the Project	Two percent (2%) of the Total Price along with applicable tax at the time of invoicing, as specified in the Works Order.	•	CMC Performance report of Project from OREDA as per Annexure Clause 7.5.8
		On completion of CMC for 5 th year from commissioning of the Project	Two percent (2%) of the Total Price along with applicable tax at the time of invoicing, as specified in the Works Order.	•	CMC Performance report of Project from OREDA as per Annexure Clause 7.5.8
6.1.2.	GCC Clause 5.5.2.1	Warranty:			

SCC Clause	GCC Clause	Detailed Clause
reference	reference	
		 Solar photovoltaic modules: Performance Warranty with guaranteed ninety percent (90%) production at the end of 10th year of operation and 80% (eighty percent) at the end of the 25th year of operation from the date of Commissioning of the Project. Product Warranty for a period of ten (10) years from the date of Commissioning of the Project.
		 Pump: Product Warranty period of five (5) years from the date of Commissioning of the Project.
		• Module mounting structures : Product Warranty period of five (5) years from the date of Commissioning of the Project.
		• Balance of system : Product Warranty period of five (5) years from the date of Commissioning of the Project.
		As a testimony, the Successful Bidder must submit the Warranty certificate and service agreement with the OEM/ suppliers prior to achieving Commissioning of the Project. Any defect noticed during the Warranty period should be rectified/ replaced by the Successful Bidder either through OEM/ suppliers or by itself, free of cost, upon due intimation by OREDA.
		In case any OEM/ supplier provides a Warranty period more than five (5) years from the date of Commissioning of the Project, then the Successful Bidder shall provide the same to OREDA even if the Warranty period exceeds the CMC Period.

7. Annexure

7.1. Bid Forms – Technical Bid

7.1.1. Bid Form 1 (Covering Letter of Technical Bid)

Covering Letter of Technical Bid

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY] RFP No.: [insert RFP No.] dated [DD MMM YYYY]

То

The Chief Executive Odisha Renewable Energy Development Agency (OREDA) Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha. Email: ceoreda@oredaorissa.com

Sub: Submission of Technical Bid for the empanelment of Engineering, Procurement and Construction (EPC) Contractor(s) for design, engineering, supply, installation, testing, commissioning and acceptance of 0.5 Hp Off-Grid Solar PV based Micro Pumping System Projects along with Comprehensive Maintenance for five (5) years across Odisha on a rate contract basis

Dear [Sir/ Madam],

Having examined the Bidding Document carefully, we, the undersigned, offer to submit herewith the Technical Bid as per the subject line and RFP No. mentioned above.

We confirm that we have submitted bid for following type of Projects as per SOW Clause 3.1.1.4:

Sr. No.	Type of Project	Submitted bid for empanelment on rate contract basis
1	Solar Pump	Yes or No

We hereby undertake the following:

- 1. We have read all the provision of the Bidding Document and confirm that notwithstanding anything stated elsewhere in our Technical Bid to the contrary, the provisions of the Bidding Document are acceptable to us and we further confirm that we have not taken any deviation to the provision of the RFP anywhere in our Bid. Acceptance of the above attribute shall be considered as our confirmation that any deviation, variation or additional condition, etc. or any mention, contrary to the provisions of Bidding Document found anywhere in our Technical Bid implicit or explicit shall stand unconditionally withdrawn, without any cost implication whatsoever to OREDA.
- 2. We further declare that any additional conditions, variations, deviations, if any, in our Bid shall not be given effect to. We further understand that any deficiency or illegibility in our Technical Bid shall result in rejection of our Technical Bid.
- 3. We hereby declare that all the information and statements made in this proposal are complete, true and correct and also accept that any misinterpretation contained in it may lead to our disqualification and rejection of our Technical Bid. In case of any false documents submitted and found any time in the future, we shall be liable to be proceeded as per Applicable Law.
- 4. We confirm that we have submitted the Technical Bid as per the instructions given in the Bidding Document.

- 5. We hereby declare and confirm that only we are submitting our Bid and that our parent, affiliate, the ultimate parent or any group companies with which we have direct or indirect relationships are not separately submitting their Bid.
- 6. We hereby declare that our application has been submitted in good faith and the information contained is true and correct to the best of our knowledge and belief.
- 7. We confirm that the Technical Bid submitted are subject to the verification solely by appropriate authorities of OREDA as per all the terms of the Bidding Document and agree that the decision taken by OREDA shall be final and binding on us.
- 8. We declare that our Technical Bid is fully compliant to the qualification requirement mentioned under Section 4 (QR) and we have not misrepresented any information provided in our Bid.
- 9. We confirm that any genuine changes made by OREDA in the interest of the Project with respect to the Technical Specifications, Designs and Drawings during the course of performance of the Work Order shall be fully acceptable to us without any cost implication whatsoever.
- 10. We confirm that we will comply with all the Applicable Laws and Prudent Utility Practices all the time during the performance of the Work Order.
- 11. We confirm that we have submitted the Technical Bid as per the forms given in Bid Form (Technical Bid) and/ or the instructions given in the RFP or E-procurement Website; failure to which our Technical Bid shall be considered as non-responsive and shall be liable for rejection.
- 12. We agree that We have not submitted any conditional or alternative Technical Bid and in case of any deviation, then our Technical Bid shall be considered as non-responsive and shall be liable for rejection.
- 13. We confirm that we do not have any conflict of interest in accordance with the provisions of the RFP.
- 14. We confirm that in case we are directly or indirectly through an agent engaged in Corrupt Practice, Fraudulent Practice, Coercive Practice, Collusive Practice, Obstructive Practice or Integrity Violation, then our Technical Bid shall be considered as non-responsive and shall be liable for rejection.
- 15. We confirm that OREDA reserves all the right to accept or reject any Technical Bid without assigning any reasons thereof and shall not be held liable for any such action and hereby waive, to the fullest extent permitted by applicable law, our right to challenge the same on any account whatsoever.
- 16. We confirm that in case our Bid is accepted, we undertake to provide Performance Security as specified in the RFP, else our Bid Security shall be forfeited.
- 17. We agree that this Technical Bid shall remain valid for a period of Three hundred and sixty-five (365) Days from the original last date of online Bid submission and such further period as may be mutually agreed upon.
- 18. The Bidding Document has been discussed in the Board meeting and a Board Resolution (BR) no. [insert BR no.] dated [DD MMM YYYY] has been concurred for submission of our Bid and is enclosed as a part of Bid Form 3 (Power of Attorney).
- 19. We undertake that OREDA shall, without prejudice to any other right or remedy, be at liberty to forfeit the Bid Security deposited by us in case of any default as per the Bidding Document.
- 20. In case we fail to achieve the milestones of Commissioning and Acceptance of the Project as per the Timelines, OREDA shall, without prejudice to any other right or remedy, be at liberty to forfeit the Performance Security.
- 21. We confirm that we shall establish a local office in Odisha so as to deliver uninterrupted and sustainable services during the O&M Period.
- 22. We understand that you are not bound to accept any Technical Bid you may receive.

[sign here]

7.1.2. Bid Form 2 (Summary of the Technical Bid)

Summary of the Technical Bid

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY] RFP no.: [insert RFP no.] dated [DD MMM YYYY]

То

The Chief Executive Odisha Renewable Energy Development Agency (OREDA) Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha. Email: ceoreda@oredaorissa.com

We, the undersigned, attaching the information as required under this format:

Particulars	Requirements	Information furnished by the Bidder
Bid Processing Fee	Copy of the " e-payment " for an amount and other details as mentioned in Section 2 (BDS) already made by the Bidder as per the various e-payment options (credit card, debit card, net baking, etc.) available on the E-procurement Website towards " Bid Processing Fee ". This shall be a non-refundable fee and is a mandatory submission.	Unique Transaction Reference (UTR) no. is [insert the UTR no.], dated [DD MMM YYYY] We are attaching the copy of the Bid Processing Fee paid to the E- procurement Website <u>www.tenderwizard.com/OREDA</u> under Attachment 1.
Cost of Bid	Copy of the " Demand Draft " for an amount and other details as mentioned in Section 2 (BDS) issued by a nationalized/ commercial bank in India towards " Cost of Bid " issued in favour of Chief Executive, OREDA payable at Bhubaneswar, Odisha. This shall be a non-refundable fee. This shall be payable by all the Bidders, subject to any exemption as provided in Section 2 (BDS). In case of an exempt as admissible, the copy of the proof of exemption issued by an appropriate	Demand Draft no. is [insert], dated [DD MMM YYYY] We are attaching the copy of the Cost of Bid submitted in the form of Demand Draft under Attachment 2.
Bid Security	Government authority (as applicable) shall be submitted. Bid Security Declaration Form shall be submitted as per Bid Form 2.	We are attaching the copy of the Bid Security Declaration Form under
Registration details	Certificate of Incorporation, Memorandum of Association (MOA) and Article of Association (AOA), applicable in case of companies. The AOA (if applicable) shall mention the company's operations and defines the company's purpose from the SOW point of view. or	Attachment 3. We are attaching the copy of the Registration Certificate under Attachment 4.
	Partnership Deed, applicable in case of partnership firm. or Proof of having the bank account or any other document as issued by the Government, applicable in case of sole proprietorship firm.	

Particulars	Requirements	Information furnished by the Bidder	
PAN	PAN is [insert PAN]	We are attaching the copy of the PAN under Attachment 5.	
GST GST no. is [insert GST no.] and the place of GST registration is for the state of [insert state name].		We are attaching the copy of the PAN under Attachment 6.	
Income tax returns	Copy of the Income Tax Return for the last three (3) Assessment Years i.e. Assessment Year (AY) 2018-19, AY 2019-20 and AY 2020-21	We are attaching the copies of the Income tax returns under Attachment 7.	
Quality Assurance We declare that we have a copy of the ISO certificate for ISO 9001 and ISO 14001 certificates in the name of the Original Equipment Manufacturer (OEM), supported by a letter of authorization from the OEM, as per QR Clause 4.2.2.		We are attaching the copy of the proof under quality assurance Attachment 8.	

Attachment 1

Attachment 2

Attachment 3

Attachment 4

Attachment 5

Attachment 6

Attachment 7

Attachment 8

Place: [insert place]

Bid Security Declaration Form

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY] RFP no.: [insert RFP no.] dated [DD MMM YYYY]

То

The Chief Executive Odisha Renewable Energy Development Agency (OREDA) Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha. Email: ceoreda@oredaorissa.com

We, the undersigned, declare that:

We understand that, according to OREDA's conditions, bids must be supported by a Bid Securing Declaration.

We accept that We may be disqualified from participating in bids of OREDA for a period of three years from the date of notification if we are in a breach of any obligation under the bid conditions, including if we:

- a) have withdrawn/modified/amended, impairs or derogates from this RFP, our Bid during the period of bid validity specified in the Bid Form 1; or
- b) having been notified of the acceptance of our Bid by OREDA during the period of bid validity
 - i. fail or refuse to execute the contract, if required, or
 - ii. fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.
- c) having been notified of the acceptance of our Bid and Work Order by OREDA during the Empanelment period
 - i. fail or refuse to execute the contract, if required, or
 - ii. fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.

We understand this Bid Security Declaration shall cease to be valid if we are not the Successful Bidder, upon the earlier of the receipt of your notification of the name of the successful Bidder; or thirty days after the expiration of the validity of our Bid.

Place: [insert place]

7.1.3. Bid Form 3 (Power of Attorney)

Power of Attorney

(To be submitted on a non-judicial stamp paper of appropriate value as per The Indian Stamp Act,1899 relevant to the place of execution. The stamp paper shall be purchased in the name of the Bidder only.)

Signature and stamp of the notary of the place of execution [insert place] dated [DD MMM YYYY]

Date: [DD MMM YYYY] RFP no.: [insert RFP no.] dated [DD MMM YYYY]

То

The Chief Executive Odisha Renewable Energy Development Agency (OREDA) Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha. Email: ceoreda@oredaorissa.com

Know all men by these presents, We, [name of the executant(s)], do hereby constitute, appoint and authorize [name of the Authorized Signatory] as the Authorized Signatory presently residing at [residential address of Authorized Signatory] and having PAN [insert PAN no. of Authorized Signatory] who is presently employed with us and holding the designation of [designation of the Authorized Signatory] as our true and lawful representative, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to submission of our Bid for the empanelment of Engineering, Procurement and Construction (EPC) Contractor(s) for design, engineering, supply, installation, testing, commissioning and acceptance of 0.5 Hp Off-Grid Solar PV based Micro Pumping System projects along with Comprehensive Maintenance for five (5) years across Odisha on a rate contract basis, with reference to the RFP no. [insert RFP no.] dated [DD MMM YYYY] issued by Odisha Renewable Energy Development Agency ("OREDA').

The Authorized Signatory shall represent us and shall be responsible for the signing of the Bid, submission of the Bid and executing all other documents related to this Bid, including but not limited to undertakings, letters, certificates, acceptances, clarifications, guarantees or any other document which OREDA may require us to submit. The Authorized Signatory is further authorized to make representations to OREDA and provide information/ responses to OREDA, representing us in all matters before OREDA, and generally dealing with OREDA in all matters in connection with our Bid and during the performance of the Work Order.

We hereby agree to ratify all acts, deeds and things are done by our said Authorized Signatory pursuant to this Power of Attorney and that all acts, deeds and things are done by our aforesaid Authorized Signatory shall be binding on us and shall always be deemed to have been done by us.

All the terms used herein but not defined shall have the meaning ascribed to such terms under the Bidding Document.

Signature of the executant Name: Designation: Address: Company:

Accepted by

Signature of the Authorized Signatory Name: Designation: Address:

RFP No. 2402/OREDA,dated-22 July /2021 OREDA

Company:

Common seal of [name of the Bidder] is affixed in [my/our] presence pursuant to the provisions mentioned in the clause under "Seal" of the Article of Association.

Board resolution dated [DD MMM YYYY] is attached below.

WITNESS

Signature: Name: Address: Signature: Name: Address:

Notes:

- The mode of execution of the power of attorney shall be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and the same shall be under the common seal of the executant affixed in accordance with the applicable procedure. Further, the person whose signatures are to be provided on the power of attorney shall be duly authorized by a Board Resolution.
- 2. The person authorized under this Power of Attorney shall be a person holding the responsible post and designation in the company.
- 3. The Board Resolution forms a part of the Power of Attorney.

Board Resolution

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.]

CERTIFIED TRUE COPY OF THE RESOLUTION PASSED IN THE MEETING OF THE BOARD OF DIRECTORS OF M/S. [insert name of the Bidder] HAVING ITS REGISTERED OFFICE AT [insert office address of the Bidder] HELD ON [DD MMM YYYY] AT [HHMM] HRS.

Resolved that we, [insert name of the Bidder], do agree to participate in the RFP invited by OREDA vide RFP no. [insert RFP no.] dated [DD MMM YYYY] for the empanelment of an Engineering, Procurement and Construction (EPC) Contractor(s) for design, engineering, supply, installation, testing, commissioning and acceptance of 0.5 Hp Off-Grid Solar PV based Micro Pumping System projects along with Comprehensive Maintenance for five (5) years across Odisha on a rate contract basis.

RESOLVED FURTHER THAT, [insert name of the Bidder] agrees to unconditionally accept all terms and conditions mentioned in the aforementioned Bidding Document.

RESOLVED FURTHER THAT, Ms./ Mr. [Name of the Authorized Signatory] [is/ are] presently residing at [residential address of Authorized Signatory] and having PAN [insert PAN no. of Authorized Signatory] who is presently employed with us and holding the designation of [designation of the Authorized Signatory] is the Authorized Signatory of [insert name of the Bidder] be and hereby authorized to sign, execute and submit such applications, undertakings, agreements and other requisite documents writings and deeds as may be deemed necessary or expedient to implement the above Project.

AND RESOLVED FURTHER THAT, the common seal of the company is affixed, wherever necessary, in accordance with the applicable procedure laid down by the applicable law and the charter documents.

For [insert name of the Bidder]

Chairman/ Director/ Company Secretary (Signatory of the Board Resolution)

Name of the Authorized Signatory Specimen signature of Authorized Signatory

Note: The above signature(s) to be attested by the person signing the resolution

7.1.4. Bid Form 4 (Technical Qualification)

Technical Qualification (Applicable for Category A Bidders)

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY] RFP no.: [insert RFP no.] dated [DD MMM YYYY]

То

The Chief Executive Odisha Renewable Energy Development Agency (OREDA) Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar – 751010, Odisha. Email: <u>ceoreda@oredaorissa.com</u>

We confirm that we meet the Qualification Requirement mentioned in QR Clause 4.3 of Section 4 (QR) and we have the experience of commissioning of projects for a cumulative quantity as mentioned under the "Our experience" in the last three (3) years from the last date of online submission of the Technical Bid in Odisha as an EPC contractor.

As per QR Clause 4.3.1, our experiences are as follows:

Technical Qualification	Number of motor- pump-set sold	Reference project no./sales order
Our experience of off-grid Solar PV Pumping System		

The details pertaining to the reference projects are given below:

Sr. No.	Item Description	Reference project [insert]*
1	Project Capacity (Sales Order of Motor	[Number of Motors sold]
	pump-sets)	
2	Title of the project with a brief of scope	
3	Actual sales order cost	[insert] Lakh INR
4	Name of the client with the full address	Name of the client:
	including the contact no. and email id of	Address:
	the client	Contact no.:
		Email id:
5	I have attached the relevant letter of	[Yes/ No]
	awards/ work orders/ contract agreement	
	along with any amendments issued in full	
	without deleting/ hiding any information	
6	Details of the letter of awards/ work orders/	Work order no.:
	contract	Date of work order: [DD MMM YYYY]
		Whether any liquidated damages been charged by
		the client? [Yes/ No]. In case of yes, please provide
		the details.

* in case of multiple reference projects, please keep on adding separate columns.

The scan copies of the letter of awards/ work orders/ contract along with the associated joint commissioning certificates/ experience certificates are enclosed below:

[Please attached the proof of documents]

Place: [insert place]

Seal: [insert seal of the Bidder]

Technical Qualification (Applicable for Category B Bidders)

(To be submitted on the letter head of the Bidder)

Date: [DD MMM YYYY] RFP no.: [insert RFP no.] dated [DD MMM YYYY]

То

The Chief Executive Odisha Renewable Energy Development Agency (OREDA) Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha. Email: ceoreda@oredaorissa.com

This Form is not applicable to us, since we are submitting the Bid under Category B.

Place: [insert place]

7.1.5. Bid Form 5 (Financial Qualification)

Financial Qualification (Applicable for Category A Bidders)

(To be submitted on the letterhead of the chartered accountant)

То

The Chief Executive Odisha Renewable Energy Development Agency (OREDA) Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha. Email: ceoreda@oredaorissa.com

I, [insert name of the chartered accountant], confirm that the Bidder, [insert name of the Bidder], has financial details as mentioned below, as per our detailed evaluation of the Bidder's latest certified true copy of the audited annual accounts and their work orders related to the solar business and/or other than solar business.

Average annual turnover:

Particulars	Unit	FY17-18	FY18-19	FY19-20
Annual turnover from pump/solar business only#		[insert]	[insert]	[insert]
Average annual turnover from pump/solar business only#	Lakh INR	[insert]		
Annual turnover from other than pump/solar business only#*	Lakh INR	[insert]	[insert]	[insert]
Average annual turnover from other than pump/solar business only#*	Lakh INR			[insert]
Annual turnover from business only#*	Lakh INR	[insert]	[insert]	[insert]
Average annual turnover from business only#*	Lakh INR			[insert]

other income is not considered

*Strick-off if not applicable

Net Worth (applicable in case of companies),

Particulars	Unit	FY19-20
Aggregate value of the paid-up share capital	Lakh INR	[insert]
Add: all reserves created out of the profits and securities premium account.	Lakh INR	[insert]
Subtract: Accumulated losses	Lakh INR	[insert]
Subtract: Deferred expenditure	Lakh INR	[insert]
Subtract: Miscellaneous expenditure not written off	Lakh INR	[insert]
Net Worth*	Lakh INR	[insert]

Note: It does not include reserves created out of revaluation of assets, write-back of depreciation and amalgamation.

[For partnership firm and sole proprietorship firm, as per the methodology certified by the chartered accountant based on the Applicable Law in India.]

I hereby declare that all the information and statements made in this certificate are complete, true and correct and also accept that any misinterpretation contained in it may lead to cancellation of my CA membership, and I shall be liable to be proceeded as per the Applicable Law. Date: [DD MMM YYYY] Place: [insert place] [sign here] Signature Name of Chartered Accountant (CA): [insert name] Designation: [insert designation] Name of the firm of the CA: [insert Bidder's legal entity name] CA membership no.: [insert CA membership no.] Registration no. of the CA's firm: Seal: [insert seal of the Bidder]

Financial Qualification (Applicable for Category B Bidders)

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY] RFP no.: [insert RFP no.] dated [DD MMM YYYY]

То

The Chief Executive Odisha Renewable Energy Development Agency (OREDA) Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha. Email: ceoreda@oredaorissa.com

This Form is not applicable to us, since we are submitting the Bid under Category B.

Place: [insert place]

7.1.6. Bid Form 6 (Test Certificates)

Date: [DD MMM YYYY] RFP no.: [insert RFP no.] dated [DD MMM YYYY]

То

The Chief Executive Odisha Renewable Energy Development Agency (OREDA) Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha. Email: ceoreda@oredaorissa.com

We, the undersigned, declare that the "**Test Certificates**" for the Equipment are issued to us from the valid MNRE/ NABL/ BIS authorized Test Labs, pursuant to the requirements as mentioned in QR Clause 4.2.1.

SI. No.	Major Component	Test Certificates Required	Test description	Designated Test Labs
1	Crystalline	IEC 61215	Design qualification	MNRE/NABL/BIS authorized Test Lab
	Silicon	IEC 61730	Safety Qualification	MNRE/NABL/BIS authorized Test Lab
	Terrestrial PV Modules	IEC 61701	Salt Mist Corrosion Test	MNRE/NABL/BIS authorized Test Lab
2	Power	IEC 61683	Efficiency Test	MNRE/NABL/BIS authorized Test Lab
	Conditioning Units (PCU)/	IEC 60068	Environmental Test	MNRE/NABL/BIS authorized Test Lab
	Inverter*	IEC 62116	Anti-Islanding Protection	MNRE/NABL/BIS authorized Test Lab
		IP 65/54	Ingress Protection for Outdoor/Indoor Enclosure	MNRE/NABL/BIS authorized Test Lab
3	Pump	IEC/BIS/ MNRE approved lab certificate	Test for Hydraulic & electrical performance of pump-set as per MNRE guidelines	MNRE/NABL/BIS authorized Test Lab

*PCU/ Inverters shall be applicable only in case of solar pv based AC pumping systems

Note:

- 1. Strick of above testing requirement if Bidder is not applying for particular Projects
- 2. The proof of all documents showcasing the possession of such copies of the Test Certificates by the Bidder shall be submitted as per the instructions given under the Letter of Intent and not at the time of bidding.

Place: [insert place]

7.1.7. Bid Form 7 (Self-certificate)

Self-certificate

(To be submitted on a non-judicial stamp paper of appropriate value as per The Indian Stamp Act,1899 relevant to the place of execution and notarized by the appropriate authority. The stamp paper shall be purchased in the name of the Bidder only.)

Date: [DD MMM YYYY] RFP no.: [insert RFP no.] dated [DD MMM YYYY]

То

The Chief Executive Odisha Renewable Energy Development Agency (OREDA) Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha. Email: ceoreda@oredaorissa.com

We, the undersigned, confirm and certify that we have not been debarred/ blacklisted/ defaulted by any Government, agency, Public Sector Undertaking (PSU), institution/ autonomous organizations in the past. We have not acted in concert or in collusion with any other Bidder or other person(s) and also not done any act, deed or thing which is or could be regarded as anti-competitive.

I/we hereby declare the following in the context of the aforementioned tender that:

In case of any false documents submitted and found in the future, we shall be liable to be proceeded against as per the Applicable Law.

In case of any such events, we have provided the case details and their current status below. [strike-off this line, in case it is not applicable].

Place: [insert place]

7.1.8. Bid Form 8 (Undertaking for Indigenousness)

Undertaking for Indigenousness

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY] RFP no.: [insert RFP no.] dated [DD MMM YYYY]

То

The Chief Executive Odisha Renewable Energy Development Agency (OREDA) Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha. Email: ceoreda@oredaorissa.com

We, [insert the Bidder name], hereby certify and confirm that the equipment to be supplied under this Project shall be indigenous and not fully imported, as per the relevant guidelines of the Ministry of New and Renewable Energy (MNRE), Government of India.

Place: [insert place]

7.1.9. Bid Form 9 (No Deviation Certificate)

No Deviation Certificate

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY] RFP no.: [insert RFP no.] dated [DD MMM YYYY]

То

The Chief Executive Odisha Renewable Energy Development Agency (OREDA) Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha. Email: ceoreda@oredaorissa.com

We, [insert the Bidder name], hereby certify and confirm that we have read the clauses and provisions of the RFP, Addendums, Corrigendum, etc. issued thereafter and the stipulation of all clauses and provisions are acceptable to us, and we have not taken any deviation whatsoever to any of the clauses and provisions.

*In case the Bidder has taken any deviation, then the same shall be mentioned here.

Deviations considered, if any

[*strike-off, if not applicable]

We further confirm that we are aware that our Bid would be liable for rejection in case any material misrepresentation is made or discovered with regard to the requirements of this RFP at any stage of the bidding process or thereafter during the performance of the Work Order.

Place: [insert place]

[sign here]

7.2. Bid Forms – Price Bid

7.2.1. Bid Form 10 (Covering Letter of Price Bid)

Covering Letter of Price Bid

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY] RFP no.: [insert RFP no.] dated [DD MMM YYYY]

То

The Chief Executive Odisha Renewable Energy Development Agency (OREDA) Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha. Email: ceoreda@oredaorissa.com

Sub: Submission of Price Bid for the empanelment of an Engineering, Procurement and Construction (EPC) Contractor(s) for design, engineering, supply, installation, testing, commissioning and acceptance of 0.5 Hp Off-Grid Solar PV based Pumping System projects along with Comprehensive Maintenance for five (5) years across Odisha on a rate contract basis

Dear [Sir/ Madam],

Having examined the Bidding Document carefully, We, the undersigned, offer to submit herewith the Price Bid as per the subject line and RFP no. mentioned above.

We agree that this Price Bid shall remain valid for a period of Three hundred and sixty-five (365) Days from the original last date of online Bid submission and further for Empanelment Period of One Year from the date of issue of Empanelment Order. The validity of bid price may be extended for further period as may be mutually agreed upon.

We have read all the provision of the Bidding Document and confirm that notwithstanding anything stated elsewhere in our Price Bid to the contrary, the provisions of the Bidding Document are acceptable to us and we further confirm that we have not taken any deviation to the provision of the RFP anywhere in our Bid. Acceptance of the above attribute shall be considered as our confirmation that any deviation, variation or additional condition, etc. or any mention, contrary to the provisions of Bidding Document found anywhere in our Price Bid implicit or explicit shall stand unconditionally withdrawn, without any cost implication whatsoever to OREDA.

We further declare that any additional conditions, variations, deviations, if any, in our Bid shall not be given effect to. We further understand that any deficiency or illegibility in our Price Bid shall result in rejection of our Price Bid.

We hereby declare that all the information and statements made in this proposal are complete, true and correct and also accept that any misinterpretation contained in it may lead to our disqualification and rejection of our Price Bid.

We hereby declare that our application has been submitted in good faith and the information contained is true and correct to the best of our knowledge and belief.

We agree with the following:

- We confirm that the Price Bid submitted are subject to the verification solely by appropriate authorities of OREDA as per all the terms of the Bidding Document and agree that the decision taken by OREDA shall be final and binding on us.
- 2. We declare that our Price Bid is fully compliant as per the terms of the Bidding Document.
- 3. We confirm that we have submitted the Price Bid in Indian Rupees only and the Price Bid will be considered up to two places of decimal only.

- 4. We confirm that any genuine changes made by OREDA in the interest of the Project with respect to the Technical Specifications, Designs and Drawings during the course of performance of the Work Order shall be fully acceptable to us without any cost implication whatsoever to OREDA.
- 5. We confirm that we will comply with all the Applicable Laws and Prudent Utility Practices all the time during the performance of the Work Order.
- 6. We confirm that we have submitted the Price Bid as per the forms given in Bid Form (Price Bid) and/ or the instructions given in the RFP or E-procurement Website; failure to which our Price Bid shall be considered as non-responsive and shall be liable for rejection.
- 7. We agree that We have not submitted any conditional or alternative Price Bid and in case of any deviation, then our Price Bid shall be considered as non-responsive and shall be liable for rejection.
- 8. We confirm that we have not mentioned the Price Bid anywhere other than the Price Bid on the Eprocurement Website for further evaluation. If we submit the Price Bid on the E-procurement Website that is not in line with the instructions mentioned therein, then the Price Bid shall be considered as non-responsive and shall be liable for rejection.
- 9. We confirm that we do not have any conflict of interest in accordance with the provisions of the RFP.
- 10. We confirm that in case we are directly or indirectly through an agent engaged in Corrupt Practice, Fraudulent Practice, Coercive Practice, Collusive Practice, Obstructive Practice or Integrity Violation, then our Price Bid shall be considered as non-responsive and shall be liable for rejection.
- 11. We understand that you are not bound to accept any Price Bid you may receive.
- 12. We confirm that OREDA reserves all the right to accept or reject any Price Bid without assigning any reasons thereof and shall not be held liable for any such action and hereby waive, to the fullest extent permitted by applicable law, our right to challenge the same on any account whatsoever.
- 13. We confirm that in case our Bid is accepted, we undertake to provide Contract Performance Securities as specified in the RFP, else our Bid Security shall be forfeited.
- 14. The rates quoted by us are firm, final and are meant for execution of the allotted supply/ installation within the time frame stipulated in the tender/supply/ installation order.
- 15. We shall be responsible for the payment of the respective taxes to the appropriate authorities and should I/we fail to do so, I/we hereby authorize OREDA to recover the taxes due from us and deposit the same with the appropriate authorities on their demand.

Place: [insert place]

[sign here]

Signature Name of Authorized Signatory: [insert name] Designation: [insert designation] Name of the Bidder: [insert Bidder's legal entity name] Seal: [insert seal of the Bidder]

7.2.2. Bid Form 11 (Price Bid for Category A Bidder)

Price Bid for Category A Bidder

(Sample Format)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

Particulars	Description
RFP no.:	[insert RFP no.] dated [DD MMM YYYY]
Name of the Project	Request for Proposal (RFP) for the empanelment of Engineering, Procurement and Construction (EPC) Contractor(s) for design, engineering, supply, installation, testing, commissioning and acceptance of 0.5 Hp Off-Grid Solar PV based Micro Pumping System projects along with Comprehensive Maintenance for five (5) years across Odisha on a rate contract basis
Name of the Bidder	[insert the Bidder name]
Category of the Bidder	Category A

SI. No.	Project Type	Description	Unit	Price in INR per Unit	Price in INR per Unit (in words)
	Unit Price Bid – Sola	r based Micro Pumping System			
A	0.5 Hp Off-Grid Solar PV based Pumping System (BLDC Submersible Pump)	ased installation, testing, commissioning and acceptance of Projects with CMC for 5 Years as per the Technical Specification		INR [insert]	Indian Rupees [insert] only
в	0.5 Hp Off-Grid Solar PV based Pumping System (PMDC Submersible Pump)	Cost of design, engineering, supply, installation, testing, commissioning and acceptance of Projects with CMC for 5 Years as per the Technical Specification and all terms given in the RFP	0.5 Hp	INR [insert]	Indian Rupees [insert] only
с	0.5 Hp Off-Grid Solar PV based Pumping System (AC Submersible Pump)	Cost of design, engineering, supply, installation, testing, commissioning and acceptance of Projects with CMC for 5 Years as per the Technical Specification and all terms given in the RFP	0.5 Hp	INR [insert]	Indian Rupees [insert] only
D	0.5 Hp Off-Grid Solar PV based Pumping System (DC Surface Pump)	Cost of design, engineering, supply, installation, testing, commissioning and acceptance of Projects with CMC for 5		INR [insert]	Indian Rupees [insert] only
E	0.5 Hp Off-Grid Solar PV based Pumping System (AC Surface Pump)	Cost of design, engineering, supply, installation, testing, commissioning and acceptance of Projects with CMC for 5 Years as per the Technical Specification and all terms given in the RFP	0.5 Hp	INR [insert]	Indian Rupees [insert] only

Note:

- 1. Above rate shall include cost of CMC for five (5) years @10% with 2% each Year of CMC Period
- 2. Above rate contract shall be for period of one year from date of the Empanelment Order
- 3. Tax (GST) rates shall be as per the actuals at the time of invoicing as per the prevailing tax rules in India.
- 4. This format to be filled in the E-procurement Website as per the instruction given in the RFP.

7.2.3. Bid Form 12 (Price Bid for Category B Bidder)

Price Bid for Category B Bidder (Sample Format)

Date: [DD MMM YYYY]

Particulars	Description
RFP No.:	[insert RFP no.] dated [DD MMM YYYY]
Name of the Project	Request for Proposal (RFP) for the empanelment of an Engineering, Procurement and Construction (EPC) Contractor(s) for design, engineering, supply, installation, testing, commissioning and acceptance of 0.5 Hp Off-Grid Solar PV based Micro Pumping System projects along with Comprehensive Maintenance for five (5) years across Odisha on a rate contract basis.
Name of the MSME Bidder	[insert the Bidder name]
Category of the Bidder	Category B
Whether the Bidder is willing to accept the lowest evaluated price (L1) for Projects determined by OREDA	[Please select either Yes or No]

Place: [insert place]

[sign here]

Signature Name of Authorized Signatory: [insert name] Designation: [insert designation] Name of the Bidder: [insert Bidder's legal entity name] Seal: [insert seal of the Bidder]

7.3. Letter of Intent Forms

7.3.1. LOI Form 1 (Letter of Intent)

Letter of Intent

(To be submitted on the letterhead of OREDA)

Letter of Intent no.: [insert Letter of Intent no.] dated [DD MMM YYYY]

From

The Chief Executive Odisha Renewable Energy Development Agency (OREDA) Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha. Email: ceoreda@oredaorissa.com

То

[Bidder name] [Address]

Sub: Letter of Intent to the Successful Bidders for the empanelment of an EPC Contractor(s) for design, engineering, supply, installation, testing, commissioning and acceptance of 0.5 Hp Off-Grid Solar PV based Micro Pumping System projects along with Comprehensive Maintenance for five (5) years across Odisha on a rate contract basis.

Reference:

- 1. NIT no. [insert NIT no.] dated [DD MMM YYYY]
- 2. RFP no. [insert NIT no.] dated [DD MMM YYYY]

With reference to the above, you have been selected as the Successful Bidder and you are requested to submit the following critical documents within a maximum period of fifteen (15) Days from the date of issue of this Letter of Intent, without any fail, else your Bid shall be liable for rejection and the Bid Security submitted to us shall be forfeited.

SI. No	Critical documents
1.	Acceptance to the LOI by signing the copy of the LOI along with an official seal, date, and
	submission to OREDA
2.	Valid Test Certificates along with datasheets of all Equipment used in the Project, as per Bid Form
	6 of Section 7 (Annexure).
3.	Contact information of various OEMs of all Equipment used in the Project
4.	Submission of Performance Security as per ITB Clause 1.8.2
5.	Submission of a Detailed Workplan in line with the Project Timelines mentioned in the SOW Clause
	3.4.1 for the implementation of Project.
6.	Submission of a site survey & yield test report with the finalization of the exact location of the
	Project and the plan for the finalization of loads for the purpose of implementation of the Project.
7.	Single line diagram of the Project.
8.	Design document of the module mounting structure and other mounting structure of the Project
	along with a STAD pro analysis report as a part of the mandatory submission.
9.	Bill of materials along with spares

Signature Name of Authorized Signatory of OREDA: [insert name] Designation: [insert designation] Odisha Renewable Energy Development Agency Seal: [insert seal of the Bidder]

Place: [insert place]

[sign here]

Signature Name of Authorized Signatory: [insert name] Designation: [insert designation] Name of the Bidder: [insert Bidder's legal entity name] Seal: [insert seal of the Bidder]

7.3.2. LOI Form 2 (Empanelment Order)

Empanelment Order

(To be submitted on the letterhead of OREDA)

Empanelment Order no.: [insert Empanelment Order no.] dated [DD MMM YYYY]

From

The Chief Executive Odisha Renewable Energy Development Agency (OREDA) Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha. Email: ceoreda@oredaorissa.com

Sub: Empanelment Order for design, engineering, supply, installation, testing, commissioning and acceptance of 0.5 Hp Off-Grid Solar PV based Micro Pumping System projects along with Comprehensive Maintenance for five (5) years across Odisha on a rate contract basis.

Reference:

- 1. NIT no. [insert NIT no.] dated [DD MMM YYYY]
- 1. RFP no. [insert NIT no.] dated [DD MMM YYYY]

With reference to the above, following venders have been empaneled for design, engineering, supply, installation, testing, commissioning and acceptance of projects along with Comprehensive Maintenance for five (5) years across Odisha on a rate contract basis.

Sr.	Name of Bidder	Category of Bidder	Type of Project
1	[Bidder name], [Address] and [Contact Details]	[A or B]	
2	[Bidder name], [Address] and [Contact Details]	[A or B]	
3	[Bidder name], [Address] and [Contact Details]	[A or B]	
4	[Bidder name], [Address] and [Contact Details]	[A or B]	
5	[Bidder name], [Address] and [Contact Details]	[A or B]	
6	[Bidder name], [Address] and [Contact Details]	[A or B]	
7	[Bidder name], [Address] and [Contact Details]	[A or B]	
8	[Bidder name], [Address] and [Contact Details]	[A or B]	
9	[Bidder name], [Address] and [Contact Details]	[A or B]	
10	[Bidder name], [Address] and [Contact Details]	[A or B]	

Above empanelment for rate contract shall be for period of one year from date of the Empanelment Order

Place: [insert place]

[sign here] Signature Name of Authorized Signatory of OREDA: [insert name] Designation: [insert designation] Odisha Renewable Energy Development Agency Seal: [insert seal of the Bidder]

7.3.3. LOI Form 3 (Letter of Intent for Project)

Letter of Intent for Project

(To be submitted on the letterhead of OREDA)

Letter of Intent no.: [insert Letter of Intent no.] dated [DD MMM YYYY]

From

The Chief Executive Odisha Renewable Energy Development Agency (OREDA) Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha. Email: ceoreda@oredaorissa.com

То

[Bidder name] [Address]

Sub: Letter of Intent for design, engineering, supply, installation, testing, commissioning and acceptance of 0.5 Hp Off-Grid Solar PV based Micro Pumping System projects along with Comprehensive Maintenance for five (5) years across Odisha on a rate contract basis

Reference:

- 1. NIT no. [insert NIT no.] dated [DD MMM YYYY]
- 2. RFP no. [insert RFP no.] dated [DD MMM YYYY]
- 3. Empanelment Order no. [insert Empanelment Order no.] dated [DD MMM YYYY]

With reference to the above, you have been selected as the Successful Bidder for design, engineering, supply, installation, testing, commissioning and acceptance of following projects along with Comprehensive Maintenance for five (5) Years.

SI. No.	Description of project	Project size/capacity (Hp/Nos.)	Total Cost (INR)
1			
2			
3			
4			
5			

Note:

- 1. Above rate shall include Cost of CMC for 5 Years @ 10% of cost of design, engineering, supply, installation, testing, commissioning and acceptance of solar project with 2% each Year of CMC Period
- 2. Tax (GST) rates shall be as per the actuals at the time of invoicing as per the prevailing tax rules in India.

You are requested to submit the following critical documents within a maximum period of fifteen (15) Days from the date of issue of this Letter of Intent, without any fail, else your Bid shall be liable for rejection and the Bid Security submitted to us shall be forfeited.

SI. No	Critical documents
1.	Acceptance to the LOI by signing the copy of the LOI along with an official seal, date, and
	submission to OREDA

SI. No	Critical documents
2.	Submission of Performance Security as per ITB Clause 1.8.2
3.	Submission of a Detailed Workplan in line with the Project Timelines mentioned in the SOW Clause 3.4.1 for the implementation of Project.
4.	Submission of a site survey & yield report with the finalization of the exact location of the Project and the plan for the finalization of loads for the purpose of implementation of the Project.
5.	Single line diagram of the Project.
6.	Design document of the module mounting structure and other mounting structure of the Project along with a STAD pro analysis report as a part of the mandatory submission.
7.	Bill of materials along with spares and all relevant equipment test certificates

Place: [insert place]

[sign here]

Signature Name of Authorized Signatory of OREDA: [insert name] Designation: [insert designation] Odisha Renewable Energy Development Agency Seal: [insert seal of the Bidder]

Date: [DD MMM YYYY] Place: [insert place] [sign here]

Signature Name of Authorized Signatory: [insert name] Designation: [insert designation] Name of the Bidder: [insert Bidder's legal entity name] Seal: [insert seal of the Bidder]

7.3.4. LOI Form 4 (Performance Security)

Performance Security (in the form of a Bank Guarantee)

NOT APPLICABLE

7.3.5. LOI Form 5 (Sample format for CMC)

Sample format for Comprehensive Maintenance Contract (CMC)

CMC ref no: [insert] Date: [DD MMM YYYY]

Sub: CMC for design, engineering, supply, installation, testing, commissioning and acceptance of 0.5 Hp Off-Grid Solar PV based Micro Pumping System projects along with Comprehensive Maintenance for five (5) years across Odisha on a rate contract basis.

Ref:

- 1. NIT no. [insert] dated [DD MMM YYYY]
- 2. RFP no. [insert] dated [DD MMM YYYY]
- 3. Letter of Intent no. [insert] dated [DD MMM YYYY]
- 4. Work Order no. [insert] dated [DD MMM YYYY]

The Comprehensive Maintenance Contract (CMC) is signed jointly between the two (2) Parties on this [insert] day of [insert] month in the year [insert] at Bhubaneswar, Odisha and shall come into force from the date of its signing.

CMC for maintenance of Project as per the details provided in the RFP and installed by M/s [insert the name of the Successful Bidder] for a CMC Period of five (5) years from the date of Commissioning of the Project.

This CMC is executed between Odisha Renewable Energy Development Agency (OREDA) having registered office at S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha, herein after called as the First Party and M/s [insert the name of the Successful Bidder] having registered office at [insert address of the Successful Bidder] herein after called as Second Party, for the maintenance for a period of five (5) years from the date of Commissioning of the Project, as per the details of the Project provided in Annexure Clause 7.7.

The Second Party will maintain the Project as per the terms and conditions mentioned here under:

- It has been envisaged in the Work Order under Article [insert] that the Project shall be warranted against any manufacturing defect and bad workmanship during the CMC Period of five (5) years from the date of Commissioning of the Project. As these Projects have been Commissioned after issuance of a Commissioning Certificate. Hence, the Second Party is fully responsible for their trouble-free maintenance and the Second Party is liable to rectify/ remove any defect noticed within the aforesaid CMC Period, free of cost.
- 2. The Second Party will impart training to the beneficiary and be able to provide first aid repair service for the solar pumping system.
- 3. The CMC includes repair/ replacement of all spares, consumable and all the Equipment including but not limited to solar photovoltaic module, inverter, battery and balance of systems during the CMC Period.
- 4. The Second Party shall establish a local office in Odisha so as to deliver uninterrupted and sustainable Comprehensive Maintenance during the CMC Period duly headed by a Service Engineer.
- 5. The Second Party shall undertake corrective maintenance upon registration of complaint by consumer at CRC-OREDA. After attending to the defect, the Second Party shall upload the required documents at ReSolve mobile application for successful closure of the complaints. The Second Party shall ensure rectification of defects and restore functionality within seven (7) Days of lodging the complaints.
- 6. The Second Party shall undertake scheduled maintenance work as per the prescribed format attached in Annexure Clause 7.5.6 and upload the required details and documents in the ReSolve mobile application strictly according to the given schedule.
- 7. The Second Party shall apprise the First Party about the requirements and supply of spares during warranty as well as CMC Period.
- 8. Annual report from CRC-OREDA shall be considered as token of verification of maintenance done and release of annual payment of CMC in arrears upon completion of each year of CMC Period.
- 9. It will be the liberty of the First Party to crosscheck the systems maintained by the Second Party. Random verification of the maintenance may be carried out by the First Party wherever necessary.

- 10. The Second Party may continue to maintain the gadgets after expiry of the CMC Period of five (5) years from the date of Commissioning of the Project, provided the Department/ First Party desires.
- 11. For adjudication of any dispute between the two (2) Parties arising on execution of this CMC, the matter shall first be brought to the notice of Chief Executive, OREDA.
- 12. In case there will be no amicable settlement of the issues, the matter can be referred to the court of law having jurisdiction at Bhubaneswar, Bhubaneswar only.

For and on behalf of Odisha Renewable Energy Development Agency (First Party),

Place: [insert place]	[sign here] Signature Name of Authorized Signatory of OREDA: [insert name] Designation: [insert designation] Odisha Renewable Energy Development Agency Seal: [insert seal of the Bidder]
For and on behalf of M/s	(Second Party)
Place: [insert place]	[sign here] Signature Name of Authorized Signatory: [insert name] Designation: [insert designation] Name of the Bidder: [insert Bidder's legal entity name] Seal: [insert seal of the Bidder]

7.4. Pre-bid Form

Pre-bid queries

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

То

The Chief Executive Odisha Renewable Energy Development Agency (OREDA) Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha. Email: ceoreda@oredaorissa.com

Sub: Submission of pre-bid queries for the empanelment of an Engineering, Procurement and Construction (EPC) Contractor(s) for design, engineering, supply, installation, testing, commissioning and acceptance of 0.5 Hp Off-Grid Solar PV based Micro Pumping System projects along with Comprehensive Maintenance for five (5) years across Odisha on a rate contract basis.

We are pleased to submit the following pre-bid queries:

SI. No.	Clause no.	Page no.	Clause	Clarification sought	Rationale
1					
2					
3					
4					
5					

Place: [insert place]

[sign here] Signature Name of Authorized Signatory: [insert name] Designation: [insert designation] Name of the Bidder: [insert Bidder's legal entity name] Seal: [insert seal of the Bidder]

7.5. Appendix to SOW - Off-grid Solar PV based Pumping System Project

7.5.1. Appendix Form 1 (Technical Specifications)

7.5.1.1. Solar PV Pumping System (off-grid projects

7.5.1.1.1. Solar photovoltaic (PV) modules:

- a) The solar PV modules to be used shall be made in India only. The PV modules shall qualify for the latest edition of the IEC PV module qualification test or equivalent BIS standards of crystalline silicon solar cell modules IEC 61215 and IS14286. In addition, the solar PV modules shall conform to the IEC 61730 Part-2 requirements for construction and Part-2 requirements for testing, safety qualification or equivalent IS. The solar PV module shall also conform to the IEC 61701 (salt mist corrosion testing) standards.
- b) The total solar PV array capacity shall not be less than the required capacity and should comprise of solar crystalline PV modules of minimum 300 Wp and above wattage each with 72 cells.
- c) Protective devices against surges at the solar PV module shall be provided. Low voltage drop bypass diodes shall also be provided.
- Solar PV modules shall be tested and approved by one of the MNRE/ IEC authorized test centers.
- e) The module frame shall be made of corrosion-resistant materials, having anodized aluminum and should have a minimum thickness of 1.5 mm and width 40 mm for sustainability.
- f) Other general specification for the PV modules and subsystems shall be the Following as
 - i. The rated output power of any supplied module shall have a tolerance of +/-3%.
 - ii. The peak-power point voltage and the peak-power point current of any supplied module and/or any module string (series-connected modules) shall not vary by more than 2 (two) percent from the respective arithmetic means for all modules and/or for all module strings, as the case may be.
 - iii. The module shall be provided with a junction box with either provision of external screw terminal connection or sealed type and with arrangement for the provision of the by-pass diode. The box shall have hinged, weatherproof lid with captive screws and cable gland entry points or may be of a sealed type and IP-21/20 rated.
 - iv. I-V & P-V curves at STC will be provided after installation.
 - PV modules used in solar PV systems must be warranted for output wattage, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years.
- g) Modules should have an RF identification tag. The following information will be mentioned in the RFID used on each module (This can be inside or outside the laminate but must be able to withstand harsh environmental conditions).
 - i. Name of the manufacturer of the PV module
 - ii. Name of the manufacturer of Solar Cells.
 - iii. Month & year of the manufacture (separate for solar cells and modules)
 - iv. Country of origin (separately for solar cells and module)
 - v. I-V curve for the module Wattage, Im, Vm and FF for the module

- vi. Unique Serial No and Model No of the module
- vii. Date and year of obtaining the IEC PV module qualification certificate.
- viii. Name of the test lab issuing IEC certificate.
- ix. Other relevant information on traceability of solar cells and module as per ISO 9001 and ISO 14001.

7.5.1.1.2. Array/Module Mounting Structure:

- a) Hot-dip galvanized MS/Aluminum mounting structures shall be used for mounting the modules/ panels/arrays. Each structure will have an angle of inclination as per the site conditions to take maximum insolation.
- b) The Mounting structure design details are as follows:
 - i. The inclination of the module or tilt angle should be within 10-15 degrees.
 - ii. An indicative drawing is shown at Appendix Form 2.
- c) The mounting structure should be as per the latest IS 2062: 1992 and galvanization of the mounting structure shall be in compliance with the latest IS 4759.
- d) The fasteners should be made up of stainless steel. The structures shall be designed to allow easy replacement of any module. The array structure shall be so designed that it will occupy minimum space without sacrificing the output from the solar PV panels.
- e) The structures should be suitably loaded with reinforced concrete blocks of appropriate weight made out of the M25 concrete mixture.
- f) Special care should be taken while designing all structures for modules to cater to heavy rainfall.
- g) The array shall be installed in the space free from any obstruction and/or shadow.
- Adequate spacing shall be provided between two-panel frames and rows of panels to facilitate personnel protection, ease of installation, replacement, cleaning of panels and electrical maintenance.
- The minimum clearance between the lower edge of PV panel and ground level shall be 150 mm to allow ventilation for cooling, also ease of cleaning and maintenance of panels as well as cleaning of the terrace.
- j) The PV array structure design shall be appropriate with a factor of safety of min. 1.5.
- k) Each array may be provided with two bird repellents spikes at a level higher than the upper edge of the array. The location of the spike should be selected for the minimum shadow effect.
- I) The support structure shall be free from corrosion when installed.
- m) PV modules shall be secured to support structure using screw fasteners and/or metal clamps. Screw fasteners shall use existing mounting holes provided by module manufacturers. No additional holes shall be drilled on module frames. Module fasteners/clamps shall be adequately treated to resist corrosion.
- n) Adequate spacing shall be provided between any two modules secured on PV array for improved wind resistance.
- o) The structure shall be designed to withstand operating environmental conditions for a period of a minimum of 25 years.
- p) The structure should be appropriately designed to withstand high wind velocities more than 200 km per hour. (The bidder is required to submit a certificate from an authorized chartered engineer with regards to the strength and durability of the structure)

q) Module Mounting Structures should have theft proof arrangements with the use of GI Steel C-channel along with the array support structure for locking arrangement of SPV modules for protecting them from theft. Its size should be with reference to the specifications of the SPV modules such that modules can comfortably slide in the channel while installation. It should not hide any portion of the photovoltaic circuit encapsulated in the lamination of the SPV module, there by un-affecting the efficiency & rating of the SPV modules. Anti-Theft Nut Bolts of SS (with washers) should also be used for better theft proofing along with "C" Channel MMS.

7.5.1.1.3. Inverter (PCU) (for off-grid) (If Applicable)

The inverter will be highly efficient. The inverter should confirm IEC 61683 /IS 61683, IS 16169/IEC 62116, IEC 60068 and should be based on MPPT design. Inverters would display its own parameters and the parameters of the battery bank connected to the inverter. Beyond the maximum load, the inverters will trip. The inverters should be designed to be completely compatible with the charge controllers and distribution panels and are of integrated design.

Salient features of the Inverters shall be as follows:

The PCU should be designed to be completely compatible with the solar PV array voltage.

- i. Inverter with MPPT shall be used with the solar PV system for maximum efficiency and shall be efficient based on PWM with IGBT/ reliable power-based design.
- ii. The sine wave output of the inverter shall be 230V, Single phase, 50 HZ AC 415 V, 3 phase, 50 Hz AC.
- iii. There should be provision to charge the battery using Grid power as long as grid voltage is between 170V-265V. In case of Grid voltage falls below 170V up to 130V, Grid charging shall stop but load shall continue to run using Grid supply, not by Solar.
- iv. The peak inverter efficiency inclusive of built-in isolation transformer shall exceed 85% at full load
- v. There should be provision to export excess PV power to the grid in case the load consumption is less than the actual generation. This is a futuristic feature and provision should be there to enable or disable this export feature.
- vi. Inverter shall provide display of PV array DC voltage & current, Battery Voltage & Current, Inverter Voltage & Current, Grid voltage & Current, Battery charging status and required parameters when a fault occurs. Remote monitoring of inverter parameters should be possible.
- vii. Operating temperature range shall be 0 to 55 deg C
- viii. Maximum Power Point Tracker (MPPT) shall be integrated into the power conditioner unit to maximize energy drawn from the Solar PV array.
- ix. The charge controller/ MPPT units should qualify for IEC standards.
- x. Online microprocessor-based Data Acquisition Systems and Remote Monitoring facility for 365 Days with data Recovery from a remote location should equip.

Nominal Battery Voltage	1-Phase, 230 V or 3 Phase, 415 V
Output frequency	50 Hz +/- 0.5 Hz
Overload Capacity	150% for 10 Second
Efficiency	80% at 50% of load and More than 90% at full load 0.8 PF
Short Circuit Protection	Circuit Breaker and Electronics protection against sustained fault.
Low Battery Voltage	Automatic Shut Down

Total Harmonic	Less than 3%	
Distortion		
Over Voltage	Automatic Shut Down	
AC over Current/Load	Automatic Shut Down	
Protection	 Over Voltage both at Input & Output 	
	 Over Current both at Input & Output 	
	Over Frequency	
	Surge voltage inducted at the output due to	
	external source.	
Protection Degree	IP65/IP54	
Instrumentation &	Input & Output voltage, Input & Output Current,	
Indication	Frequency, Power output, different status of	
	inverter, kind of fault by the audio signal.	

7.5.1.1.4. On/off switch

A good reliable switch suitable for DC use is to be provided. Sufficient length of cable should be provided for inter-connection of the PV array, Controller / Inverter and the motor pump set.

7.5.1.1.5. Water supply system

For 0.5 hp Motor Pump Set and 500 Wp Solar Panel:

Under the "Average Daily Solar Radiation" condition of 7.15 KWh / sq.m. on the surface of PV array (i.e. coplanar with the PV Modules), the minimum water output from a Solar PV Water Pumping System at different "Total Dynamic Heads" should be as specified below :

- i. Minimum 20, 000 liters of water per day from a Total Dynamic Head of 10 metres and the shut off head being at least 12 metres.
- ii. Minimum 10, 000 liters of water per day from a Total Dynamic Head of 20 metres and the shut off head being at least 30 metres
- iii. Minimum 6000 liters of water per day from a Total Dynamic Head of 30 metres and the shut off head being at least 45 metres

The actual duration of pumping of water on a particular day and the quantity of water pumped could vary depending on the solar intensity, location, season, etc.

a) Motor pump-set

The SPV water pumping systems may use any of the following types of motor pump sets:

- i. DC (BLDC or PMDC) Submersible motor pump set
- ii. AC Submersible motor pump set
- iii. AC or DC Surface mounted motor pump-set

The "Motor Pump Set" should have a capacity of 0.5 hp and should have the following features:

- i. The mono block DC/ AC centrifugal motor pump set with the impeller mounted directly on the motor shaft and with appropriate mechanical seals which ensures zero leakage.
- ii. The motor of the capacity 0.5 hp should be AC, DC or BLDC type. The suction and delivery head will depend on the site-specific condition of the field

Either of Submersible pumps or Surface pumps could be used according to the dynamic head requirement of the site at which the pump is to be installed.

It is recommended that all parts of the pump and the motor of the submersible pumps should be made of stainless steel or suitable grade of plastic. The impellers and other internal parts can be of suitable grade of modified PPE resins (example Noryl) or Polycarbonate or equivalent.

- i. The manufacturers of pumps should self-certify that, the pump and all external parts of motor used in submersible pump which are in contact with water, are of stainless steel or suitable grade of plastic
- ii. The pumps used for solar application should have a 5 years warranty, so it is essential that the construction of the pump be made using parts which have a much higher durability and do not need replacement or corrode for at least 5 years.

The following details should be marked indelibly on the motor pump set i. Name of the Manufacturer or Distinctive Logo

- ii. Model Number
- iii. Serial Number

The suction/ delivery pipe shall be of HDPE or UPVC column pipes of appropriate size. In case of HDPE pipes the minimum pressure rating of 8 kg/sqcm-PE100 grade for pumps up to 3 HP. All necessary electric cables, floating assembly, civil work and other fittings required to install the Motor Pump set as per best practices to be used.

NOTES:

- The type of pump set used must match the total dynamic head requirement of the site (i.e. the location at which it is installed).
- There should not be any compulsion to use only one or the other type of Motor-pump set. The beneficiary may select an appropriate Model (i. e. Capacity of PV Array and Type of Motor Pump Set) as per site requirement.
- Solar Photovoltaic Water Pumping Systems should be tested and certified by an authorized test centre of the Ministry to meet the performance and water discharge norms

Particulars	Model IV	Model V	Model VI
PV Array (Wp)	500	500	500
Motor Capacity (Hp)	0.5	0.5	0.5
Shut off dynamic head (m)	12	30	45
Water Output* (Lit/ day)	20000	10000	6000
Total Head (m)	10	20	30

* Water output figures are on a clear sunny day with three times tracking of SPV panel, under the "Average Daily Solar Radiation" condition of 7.15 KWh/ sq.m. on the surface of PV array (i.e. coplanar with the PV Modules).

- For higher or lower head / PV capacity, or in between various models; water output could be decided as per performance specifications.
- In case of a surface pump, the suction head to be limited to 6 metres.

7.5.1.1.6. Protection:

The solar PV system should be provided with Lightening and over-voltage protection, connected with proper earth pits. The main aim of overvoltage protection is to reduce the overvoltage to a tolerable level before it reaches the PV or other sub-system components. The source of overvoltage can be lightning or other atmospheric disturbance.

- a) Lightening
 - iii. The lightning Conductors shall be made of a minimum 25 mm diameter and minimum 3,000 mm long GI spike as per provisions of IS 2309-1969. A necessary concrete foundation for holding the lightning conductor in position should be made after giving due consideration to maximum wind speed and maintenance requirements at the site in the future. The lightning conductor should be earthed through 20 mm X 3 mm thick GI flat earth pits/earth bus with proper Insulation. Height of Lightening Conductors from Array Structure should beminimum4metres.
 - iv. Most areas of the State being prone to lightening, Type-II SPDs shall be included as a mandatory requirement.
 - v. Similarly Type I+II SPD should also be provided on the grid side in ACDB or PCU to protect the PCU from damage
- b) Earthing
 - i. Earthing should confirm to IS 3043.
 - ii. Earth Continuity wire/conductor should be 3-8 SWG. The thickness of the Conductor should be more than half of the thickest wire used in electric wiring. The total resistance of the continuity conductor should be less than 1 ohms.
 - iii. Earthing lead can be of GI/Copper Strip. For each Earth Electrode 2 Leads must be provided.
 - iv. Earth Electrode can be of GI Pipe/Plate. Pipe Electrode should be of 40 mm diameter, 4.75 m length (for rocky soil)/2.75 m (for ordinary soil). Plate Electrode should be of 60 cm*60 cm at a depth of 3 m. The thickness of the plate should be 3.18 mm (copper)/6.35 mm (GI). Moistened land should be preferred for Earthing.
 - v. Charcoal along with Salt and Lime mixture/ Bentonite in a granular form mixed with water/ Marconite/ Chemical Earthing (Bentonite based/ Graphite based with Aluminum Silicates & Metal Powder) should be provided. The mixture should be inserted into the pipe or put around the plate. The Electrode system should be covered with a cast iron cover plate with a locking arrangement. (Marconite is recommended due to its Very Low resistivity)
 - vi. No. of Earthing points to be used:
 - vii. One Earthing for all the Structural Conducting Parts
 - viii. Each array structure of the solar PV yard will be grounded properly. The array structures and the lightning conductors are to be connected to earth through a 25 mm X 5mm GI strip.
 - ix. The inverters and all equipment inside the control room shall be connected to earth through 25 mm X 5mm tinned copper/GI strip including supplying of material and soldering. Earth bus should be provided inside the control room with25 mm X 5mm tinned copper/GI strip.
 - x. In compliance with Rule 61 of Indian Electricity Rules, 2004 (as amended up to date), all non-current carrying metal parts should be earthed with two separate and distinct earth continuity wires.
- c) Surge Protection Devices (SPD):

- Surge protection devices should be provided on both the DC side and the AC side (if applicable) of the solar PV system. It should have a protection voltage of 2.5 kV & Nominal Discharge current of 5 kA (8/20) μ sec.
- ii. The DC surge protection devices (SPDs) should be installed in the DC distribution box adjacent to the solar inverter.
- iii. The AC SPDs shall be installed in the AC distribution box adjacent to the solar inverter.
- iv. The SPD's earthing terminal should be connected to earth through the abovementioned dedicated earthing system.

7.5.1.1.7. Cables & Wirings

- a) The Cable & Wires should comply with IEC60227 or IS694 & IEC60502 or IS1554 BSEL50618 (for DC cables for PV systems).
- b) All copper flexible cables should comply with IS651 and make should be Polycab, Havells or equivalent.
- c) Color code should be followed for overall wiring i.e., red for positive, black for negative, green for the earth.
- d) All cables should run in suitable PVC Conduits. No cable should be directly exposed to sunlight.
- e) Cable Sizes should be as per the Current and Voltage ratings.

7.5.1.1.8. Display Board

A display board of size 3 ft x 3 ft that gives a detailed circuit diagram of the system with its description should be provided.

7.5.1.1.9. Danger Plates

The bidder has to provide at least 8 Danger Notice Plates of 200 mm X 150 mm made of mild steel sheet, minimum 2 mm thick and vitreous enameled white on both sides and with inscription in signal red color on the front side as required. The inscription shall be in English and the local language. Out of eight, four danger notice shall have to be provided at solar PV system & Four-danger notice at Control Room & Battery room.

7.5.1.1.10. Remote Monitoring System:

The Solar PV System must be provided with a remote monitoring system embedded in the Generation Meter. The RMS must be capable of providing ONLINE Generation data (daily, monthly, yearly & total). The features of the RMS along with operational details must be submitted along with the Bid.

These systems should work using GSM/GPRS data communication service (GSM/GPRS service shall be provided by the Vendor for 5 years including data charges) or SMS (Short Message Service). They must provide data on power generation every 15 minutes indicating all spikes, dips, etc.

Important features:

- a) Cloud-based Communication
- b) Dashboard display either on PC, Laptop, Tab, smartphone
- c) Internal communication protocols.

*Monthly Report has to be submitted to OREDA.

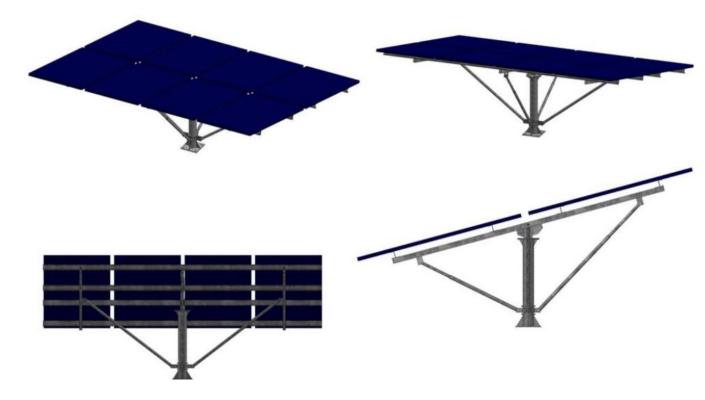
7.5.1.1.11. Drawings & Manuals:

Two copies of Engineering, electrical drawings, Installation and CMC manuals are to be supplied. Bidders shall provide complete technical datasheets for each equipment giving details of the specifications along with make/makes in their bid along with the basic design of the solar PV system and power evacuation, synchronization and distribution for street lighting system along with protection equipment.

7.5.2. Appendix Form 2 (Indicative design and drawing for projects)

7.5.2.1. Solar PV Pumping system Projects

The indicative diagram of module mounting structure is given below:



7.5.3. Appendix Form 3 (Commissioning Report)

The Commissioning Report shall essentially capture the health of the Project at the time of Commissioning along with the various observations which will be captured in accordance with the Applicable Law and Prudent Utility Practices prevailing in Odisha and any general practices followed in the solar industry. The Commissioning Committee will prepare the Commissioning Report. In addition, the OREDA will provide the compliance report as per CRC procedures and this shall be referred along with the Commissioning Report for the issuance of Commissioning Certificate.

The sample Commissioning Report is represented below:

Commissioning Report – Project

Date: [DD MMM YYYY] RFP no.: [insert RFP no.] dated [DD MMM YYYY]

Reference:

- 1. NIT no. [insert] dated [DD MMM YYYY]
- 2. RFP no. [insert] dated [DD MMM YYYY]
- 3. Letter of Intent no. [insert] dated [DD MMM YYYY]
- 4. Work Order no. [insert] dated [DD MMM YYYY]
- 5. Any other correspondence, if any:

This Commissioning Report is prepared for the Bidder [insert name of Bidder] for the [on-grid/off-grid Solar Photovoltaic Power Project/Solar Tree Project/Water Kiosk Project] at [project site details].

The Project details are given below:

SI. No.	Items	Details
1.	Name of the Beneficiary/Consumer	
2.	Address	
3.	Capacity of the off-grid Solar Photovoltaic Power Micro Pumping Project	
4.	CMC manual	(Yes/No)
5.	Dos & Don'ts in the form of a booklet	(Yes/No)
6.	Proof of conducting the training programs	(Yes/No)

Tests performed during Commissioning:

SI. No.	Test	Result
1.	Load Test	
2.	IV Curve	
3.	Earthing Test	
4.	Water Flow Rate Test	
5.	Array Junction Boxes (Current & Voltage)	
6.	Continuity Test	
7.	Stress Test	
8.	Visual Inspection	

The above project was commissioned as per applicable guidelines and the tests performed suggest that the performance of the above [on-grid/off-grid Solar Photovoltaic Power Project/Solar Tree Project/Water Kiosk Project] is satisfactory.

Place: [insert place]

[sign here]

Signature Name of Authorized Representative of OREDA: [insert name] Designation: [insert designation] Odisha Renewable Energy Development Agency (OREDA) Seal:

Place: [insert place]

[sign here]

Signature Name of Authorized Representative of Distribution Utility Department/Organization: [insert name] Designation: [insert designation] Distribution Utility: [insert name] Seal:

* In case of off-grid system, Commissioning Report will be signed by OREDA only

7.5.4. Appendix Form 4 (Joint Commissioning Certificate)

Joint Commissioning Certificate of Projects

(To be issued by OREDA on the letterhead)

TO WHOMSOEVER IT MAY CONCERN

Ref. no.: [insert]

Date: [DD MMM YYYY]

То

[Successful Bidder's name] [Address] [Email id] [Mobile no.]

Reference:

- 1. NIT no. [insert] dated [DD MMM YYYY]
- 1. RFP no. [insert] dated [DD MMM YYYY]
- 2. Empanelment Order no. [insert] dated [DD MMM YYYY]
- 3. Work Order no. [insert] dated [DD MMM YYYY]
- 4. Any other correspondence, if any:

This is to certify that [Name of the Successful Bidder] having its registered office at [address] has successfully commissioned the Project at [insert village name] village, [insert district name] District in Odisha.

[insert the Project details]

The Joint Commissioning Certificate is issued on the basis of the following documents enclosed:

- 1. Commissioning Report as submitted by Commissioning Committee
- 2. Installation report as uploaded on CRC created using the ReSolve Mobile App only

Place: [insert place]

[sign here]

Signature Name of Authorized Representative of OREDA: [insert name] Designation: [insert designation] Odisha Renewable Energy Development Agency Seal:

Place: [insert place]

[sign here]

Signature Name of Authorized Representative of Distribution Utility Department/Organization: [insert name] Designation: [insert designation] Distribution Utility: [insert name] Seal:

* In case of off-grid project, Joint Commissioning Certificate will be signed by OREDA only

7.5.5. Appendix Form 5 (Acceptance Certificate)

Acceptance Certificate of Project

(To be issued by OREDA on the letterhead)

TO WHOMSOEVER IT MAY CONCERN

Date: [DD MMM YYYY]

То

[Successful Bidder's name] [Address] [Email id] [Mobile no.]

Reference:

- 1. NIT no. [insert] dated [DD MMM YYYY]
- 2. RFP no. [insert] dated [DD MMM YYYY]
- 3. Empanelment Order no. [insert] dated [DD MMM YYYY]
- 4. Work Order no. [insert] dated [DD MMM YYYY]
- 5. Joint Commissioning Certificate no. [insert] dated [DD MMM YYYY]
- 6. Any other correspondence, if any:

This is to certify that [Name of the Successful Bidder] having its registered office at [address] has successfully commissioned the Project at [insert village name] village, [insert district name] District in Odisha with respect to the ref. no. 5 and it is operating successfully for a period of thirty (30) Days from the date of the Joint Commissioning Certificate.

The Acceptance Certificate has been issued on the basis of the following documents enclosed:

- 1. Acceptance Report as submitted by the Commissioning Committee prepared in line with Commissioning Report
- 2. Installation report as uploaded on CRC created using the ReSolve Mobile App only
- 3. No claim/ lien certificate

Place: [insert place]

[sign here] Signature Name of Authorized Representative of OREDA: [insert name] Designation: [insert designation] Odisha Renewable Energy Development Agency Seal:

7.5.6. Appendix Form 6 (Scheduled Maintenance):

7.5.6.1. Scheduled Maintenance for Solar PV system:

The periodic Scheduled Maintenance protocol for the Solar PV Micro Pumping system Project is given below:

Sr. No.	Sr. No. Task		Semi- annual	Annual	Bi- annual
1	PV Array				
A	A Inspect each PV modules for				
damage					
В	Observe PV array shading and				
	take corrective measures				
С	Clean array with water and				
	removes debris around the array				
D	Inspect array mounting structure,				
	check for loose fasteners,				
	corrosion, broken/ damaged				
	concrete footings, etc. and take				
	corrective measures, if				
	necessary.				
E	Check the array junction box, all				
	wires and cables to take				
	corrective measures if necessary.				
F	Adjust tilt angle, if necessary				
G	Check array current & voltage. If				
	required each module current,				
	voltage & bypass diode condition.				
Н	Check for any loose contacts in				
	the string connection (+ve/-ve				
	MC4 connectors)				
2 A	PCU(As Applicable)				
A	Check inverter and/or charge				
В	controller for correct settings				
D	Check Inverter capacity and max allowable load using dummy load.				
С	Ventilation fan condition/filter				
U	cleaning				
D	Check all the parameters (I/P &				
D	O/P) as per Manufacturer				
	datasheet for any Malfunctioning				
3	Protection devices				
A	Check for continuity of lightning				
	arrestor				
В	Check system earthing				
C	Check all SPDs				
D	Check all bypass/ blocking diodes				
_	and take corrective measures if				
	necessary.				
4	Solar pump + Water Supply				
4	System				

7.5.7. Appendix Form 7 (Test Certificates – IEC and IP certifications)

SI. No.	Major Component	Test Certificates Required	Test description	Designated Test Labs
1	Crystalline	IEC 61215	Design qualification	MNRE/NABL/BIS authorized Test Lab
	Silicon	IEC 61730	Safety Qualification	MNRE/NABL/BIS authorized Test Lab
	Terrestrial PV Modules	IEC 61701	Salt Mist Corrosion Test	MNRE/NABL/BIS authorized Test Lab
2	Power	IEC 61683	Efficiency Test	MNRE/NABL/BIS authorized Test Lab
	Conditioning Units (PCU)/ Inverter*	IEC 60068	Environmental Test	MNRE/NABL/BIS authorized Test Lab
		IEC 62116	Anti-Islanding Protection	MNRE/NABL/BIS authorized Test Lab
	IP 65/54	Ingress Protection for Outdoor/Indoor Enclosure	MNRE/NABL/BIS authorized Test Lab	
3	Pump	IEC/BIS/ MNRE approved lab certificate	Test for Hydraulic & electrical performance of pump-set as per MNRE guidelines	MNRE/NABL/BIS authorized Test Lab

The Test Certificate requirements for the Project are given below:

Note: The proof of all documents showcasing the possession of such copies of the Test Certificates by the Bidder shall be submitted along with Lol document.

7.5.8. Appendix Form 8 (CMC Performance Report)

CMC Performance Report - Project

(To be issued by OREDA on the letterhead)

TO WHOMSOEVER IT MAY CONCERN

Date: [DD MMM YYYY]

То

[Successful Bidder's name] [Address] [Email id] [Mobile no.]

Reference:

- 1. NIT no. [insert] dated [DD MMM YYYY]
- 2. RFP no. [insert] dated [DD MMM YYYY]
- 3. Letter of Intent no. [insert] dated [DD MMM YYYY]
- 4. Work Order no. [insert] dated [DD MMM YYYY]
- 5. Commissioning Certificate no. [insert] dated [DD MMM YYYY]
- 6. Acceptance Certificate no. [insert] dated [DD MMM YYYY]
- 7. Any other correspondence, if any:

This is to certify that [Name of the Successful Bidder] having its registered office at [address] has commissioned [insert capacity and type of project] Project at [project site details] with respect to the ref. no. 5 and 6 on [date of commissioning of project] and it is operating successfully and [Name of the Successful Bidder] has provided CMC during [insert financial year] which is [insert year of CMC] from the date of the Commissioning Certificate.

CMC Performance of [Name of the Successful Bidder] is acceptable on the basis of the Annual Performance Report generated and submitted by CRC.

Place: [insert place]

[sign here] Signature Name of Authorized Representative of OREDA: [insert name] Designation: [insert designation] Odisha Renewable Energy Development Agency Seal:

7.6. No claim/ lien certificate

No claim/ lien certificate

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY] RFP no.: [insert RFP no.] dated [DD MMM YYYY]

We, the undersigned, certify that we are free and clear from any and all claims, liens, security interest, encumbrances, unpaid vendors'/ suppliers' lien or otherwise, arising out of or in connection to the performance of the Work Order no. [insert] dated [DD MMM YYYY]

Place: [insert place]

[sign here] Signature Name of Authorized Signatory: [insert name] Designation: [insert designation] Name of the Bidder: [insert Bidder's legal entity name] Seal: [insert seal of the Bidder]

7.7. Appendix to SOW – CRC guidelines

7.7.1. Disclaimer

- 7.7.1.1. These guidelines meant for use of OREDA only.
- 7.7.1.2. These guidelines are prescribed for installation, Commissioning, Acceptance and Comprehensive Maintenance of renewable energy systems installed by/under OREDA only.
- 7.7.1.3. OREDA does neither recommend nor insist other organizations to follow these guidelines for the renewable energy systems developed by either by themselves or through any other organization other than OREDA.
- 7.7.1.4. OREDA reserves all the right to modify, amend or supplement these guidelines whenever such necessity arises.
- 7.7.1.5. Though adequate care has been taken for preparation of these guidelines the installation and maintenance details prescribed in this document are not the only and absolute prescriptions. Depending upon the on-site conditions, the installation/maintenance technician shall take his/her own well-judged decision while installing or maintaining a given RE system.
- 7.7.1.6. Though safety features have not been covered under these guidelines, Indian standard safety guidelines for construction work and electrical works must be followed by all involved in with installation and maintenance of RE systems under these guidelines.

7.7.2. Declaration

- 7.7.2.1. These guidelines will hereinafter be known as "General Guidelines for Installation and Maintenance of RE Systems under OREDA"
- 7.7.2.2. These guidelines shall be applicable to all distributed RE systems installed under the aegis of OREDA.
- 7.7.2.3. These guidelines shall be strictly followed by all vendors of OREDA.
- 7.7.2.4. These guidelines will also be strictly adhered to by all technicians and supervisory level officers of OREDA.
- 7.7.2.5. These guidelines will also constitute an integral part of all tenders of OREDA
- 7.7.2.6. The scoring system prescribed in these guidelines shall be applicable to all vendors of OREDA executing projects on behalf of OREDA

7.7.3. Intent behind framing these guidelines

7.7.3.1. These guidelines have been framed solely with the intention of improving the installation standards of RE systems and to extend the quality and timely maintenance services so as to minimize system downtime and guarantee customers' satisfaction.

7.7.4. Context

- 7.7.4.1. The last few years have witnessed a tremendous rise in the number of RE installation particularly in remote, un-served and underserved parts of the state. In view of the absolute need of these installations to meet the basic requirements such as lighting, the supply of drinking water, irrigating farmlands, etc. it is imperative on the part of OREDA to ensure proper performance of the systems which largely depends on the quality of materials, standards of installation and the certainty and frequency of maintenance.
- 7.7.4.2. Ministry of New and Renewable Energy, GOI normally determines the quality and standards of the materials which are elaborately reiterated in the respective tender documents.

- 7.7.4.3. Project-specific installation procedures are often elaborated in the respective tender documents which the vendors are expected to follow meticulously. However, it has been observed that the vendors often do not adhere to these procedures which results in poor performance of the systems. To enable the vendors to follow the procedures meticulously a specific installation App has been developed by OREDA which will be shared with the vendors on their registered mobiles meant to be used by their designated Technicians. The App has been made in such a way that as a technician proceeds for installation of a certain system/device it opens up the step by step installation procedure for the given system/device which the technicians simply has to follow and upload pictures wherever camera buttons have been provided. As a technician completes installation the entire installation report along with pictures will be ready on his mobile for submission to OREDA.
- 7.7.4.4. Renewable Energy systems are known for their low maintenance needs. Often this is misconceived as "no-maintenance" which results in non-performance of such high value and efficient systems. Thus, all RE systems must be maintained well.
- 7.7.4.5. Though the primary responsibility of maintenance of the systems has been vested in the concerned vendor the rising number of unresolved service requests at the CRC calls for some serious organizational oversight. Moreover, it is presumed that many customers are also not able to register their requests due to poor or no mobile connectivity, ignorance about CRC and its toll-free number, etc.
- 7.7.4.6. Keeping the above in view, OREDA during September2018 introduced a Scheduled Maintenance Regime through its Customer Relationship Centre so as to introduce periodicity and certainty in the maintenance services being extended by the vendors. Like installation, the scheduled maintenance has also been made a mobile application based where the technician responsible for maintenance of the system can step by step follow the prescribed procedure for scheduled maintenance and upload pictures wherever camera buttons have been provided. At the end of the maintenance procedure, a maintenance report can also be generated by the technicians.
- 7.7.4.7. This initiative is not only expected to increase the performance level of the installations but also greatly reduce service requests by customers.

7.7.5. Objectives:

The primary objectives of this new initiative are

- 1. Increase the economic life span of installations.
- 2. Ensuring better performance of RE systems.
- 3. Higher returns on investments.
- 4. Higher customer satisfaction
- 5. Better acceptance of decentralized RE based power systems
- 6. Increased response to climate change mitigation.

7.7.6. Stakeholders:

Ensuring proper performance of RE installations calls for the combined effort of all stakeholders such as Customers, Sponsors, PRIs, Vendors, Independent Service Organizations, OEMs, and OREDA.

7.7.6.1. Customers:

Customers are the ultimate users and custodians of RE systems/devices. They are required to own the systems irrespective of the systems being privately owned by them or a public property installed inside their premises. They should be responsible for the safety and security of the systems as well as day-to-day maintenance of the systems as prescribed in the users' manual.

7.7.6.2. Sponsors

Sponsors are the Government Departments/Organizations sponsoring the schemes/program under which the RE systems/devices are installed. Sponsors are responsible for availing and extending maintenance contracts and organizing funds for the same. Sponsors are to be kept informed about the maintenance activities as well as emergent situations that call for material and financial resources.

7.7.6.3. Panchayati Raj Institutions (PRIs)

PRIs are supposed to be the ultimate owners of community assets such as drinking water supply systems, streetlights, etc. They are expected to properly register the community assets in their asset registers as well as apportion funds from their grants/income for repair and maintenance of the assets beyond the scheduled maintenance period.

7.7.6.4. Vendors

Vendors are primarily responsible for supply, installation and commissioning of the RE systems/devices. They are also responsible for the effective maintenance of the systems for the first five years or as may be mentioned in the concerned tender. Vendors are required to extend scheduled maintenance services as well as on-call maintenance services to all systems installed by them. For extending such services smoothly they may establish their own service network or avail services of Independent Service Organizations. Vendors are also required to have back-to-back agreements with their OEMs for extending guarantee, warranty, the supply of spares, etc. Vendors shall work in close coordination with the customers, custodians, field units, respective technical divisions, and CRC of OREDA in order to deliver effective maintenance services.

7.7.6.5. Original Equipment Manufacturers (OEMs)

The Manufacturers of the original equipment used in RE systems/devices are important stakeholders as far as delivery of effective maintenance services is concerned. Without a proper inventory of spares at their end for the entire period of maintenance and quick response to the need for spares at the project site, it is almost impossible to deliver effective maintenance services on the part of the vendors. Hence OEMs must enter into tripartite agreements with vendors as well as OREDA with regards to the adequacy and timely supply of spares. OREDA may also consider empaneling OEMs of important items such as pumps, invertors, CPUs, etc.

7.7.6.6. OREDA

OREDA represented by its Technical Divisions, Field Units, CRC is the most important stakeholders in respects of

- a) Managing processes and providing oversight
- b) Establishing principles and parameters for extending maintenance services
- c) Setting up performance parameters
- d) Monitoring, measuring and analyzing stakeholders' performance.
- e) Working for performance improvement
- f) Identifying time-bound and appropriate actions as well as working on the same
- g) Developing internal preparedness to repair, re-installing systems beyond the scope of the vendors.
- h) Developing contingency resources and plans to force majeure situations.
- i) Recognizing and encouraging good performance

7.7.7. Process

The overall process is hinged on three distinct sub-processes. They are

- 1. Onboarding the project
- 2. Installation & Commissioning of the systems
- 3. Creation of system IDs and linking to CRM
- 4. Managing the R&M.

The efficiency of maintenance is largely dependent on the quality and regularity of step 1,2&3. The processes are as follows:

7.7.7.1. ONBOARDING:

Onboarding refers to the creation of the project-specific database comprising of the following details. Onboarding of each project is to be done by the concerned Division Head of OREDA.

- a) Name of the scheme (Generic-Specific)
- b) Name of the sponsors.
- c) Details of sanction order indicating the quantity, cost, locations, etc.
- d) Date of floating of tender
- e) Date of finalization of tenders.
- f) Vendor details (name, the quantity of work awarded, the total cost of the work, locations assigned)
- g) Date of Issue of LOI
- h) Details of survey report submitted by the vendor in response to LOI
- i) Details of project execution schedule submitted by the vendor in response to LOI
- j) Date of issue of firm work order vendor wise
- k) Final date of completion of the project.

This would get populated onto the database in phases as the scheme progresses from conception to inception.

Once a scheme is on-boarded the details are to be intimated to CRC for the creation of a new account.

7.7.7.2. PROJECT EXECUTION: The vendor to whom a particular work has been assigned is responsible for the execution of the project. As soon as a project is on-boarded with the above details the same will appear on the dashboard of the concerned vendor(s). The vendor then has to assign the project to a specific technician(s) having registered mobile phones on which the installation apps have been loaded.

The technician will then be able to see his/her assigned projects on the app provided having details such as the name of the project, name of the customer, location details including GPS coordinates, the capacity of the project, etc. As the technician starts executing the project, he/she has to upload the following details as and when it happens

- a) Date of commencement
- b) Details of all hard wares
- c) Exact location of installation
- d) Complete step by step installation details including the picture as per the installation app.
- e) Date of commissioning the project

This would get populated onto the database in phases as the scheme progresses from conception to inception.

7.7.7.3. SUPERVISION:

a) District Level: As soon as the on-boarding is complete the Officer-in-charge of the District RE Cell can see the details on his dashboard. Similarly, he can see the subsequent processes carried out at the vendor and technician levels. At any point in time as may be required the Officer-in-charge of the District RE Cell can undertake filed visits and supervise the progress of the work, quality of work execution, etc.

Once a project is commissioned the Officer-in-charge of District RE Cell can make necessary checks and upload the Joint Commissioning Certificate on the App provided to him within a stipulated timeline.

b) HQR. Level: After getting the commissioning reports and necessary checks thereon the concerned division of OREDA will create the project/system ID after which the project/system will automatically get linked to the CRC which will mark the beginning of the processes at CRC such as Scheduled Maintenance and Corrective Maintenance.



7.7.8. R&M Management:

The R&M regime involves two types of efforts. The first is the Scheduled Maintenance Activities, which is done as a preventive action. It is expected that these periodic maintenances will drastically reduce the incidents of breakdowns. This should be done at some periodicity and in each case, a list of activities must be done. The second is the Unscheduled Maintenance Activities which are of corrective nature. This means when any breakdown/ malfunction is detected, the appropriate corrective action needed can be initiated.

7.7.8.1. Scheduled (Preventive) Maintenance:

- a) A master maintenance schedule is to be drawn up for the organization covering each installation.
- b) This will be done by stratifying the districts into District Clusters based on logistical convenience.
- c) Each Cluster will be broken down into three geographical patches (comprising of Blocks/ GPs) called as Maintenance Cluster to evenly distribute the ticket load across each month within that Maintenance Cluster.
- d) The CRMS, well before the schedule, will fire a flurry of emails and SMS to the Vendors notifying about the list of installations they must cover in each of the Clusters within that Month. A ticket for each installation in the list will be automatically generated. It may be noted that though the list is sent in one list, separate emails will be sent for each ticket on which communication/ transactions have to be made by the Vendor
- e) It's the responsibility of the Vendors to track each case through their authorized technicians and report compliance throughout the month as soon as they cover the installations.
- f) The technicians/ SPOC of the vendor must share the documents/evidence required for the acceptance of resolution over e-mail in the same thread the ticket was raised. No resolution mail other than that thread will be accepted. The protocol of communication may get subsequently changed to improve operational efficiency.
- g) The CRC as soon as it receives the resolution mail, will cross verify the claim of resolution by the technicians and may close the ticket or return for rework.
- h) The CRMS at the end of the month will compute the performance of the ticket/ Vendor/ Scheme and release a scorecard.



7.7.8.2. Unscheduled (Corrective) Maintenance:

- a) Breakdown occurs at one of the installations.
- b) The customer calls the CRC to submit a service request.
- c) The agent at the CRC using the CRMS identifies the customer and registers a request called a ticket.
- d) Automatically a set of e-mails is fired to the Vendor, its Technician, Administering Dept. of the Scheme and OREDA.
- e) The CRMS tracks each ticket and follows up each case over e-mail and voice calls.
- After the lapse of certain days, the CRMS auto escalates it to the Nodal Officer/ Scheme Officer for action.
- g) The vendor/ Technician resolves the ticket at the field and intimates the CRC about it through the designated communication channel as per the protocol.
- h) CRC cross-verifies it with the community/ customer and closes the ticket.
- i) CRMS measures performance.



7.7.9. Repair and Maintenance Regime:

7.7.9.1. Scheduled Maintenance:

The schedule maintenance regime will focus on the vendor's **certainty and regularity** of visit to the installations under him as his performance parameter. He is expected to comply with a minimum of 90% visit against the Scheduled Tickets within that Service Month.

a) Activities under each category of Tickets:

The vendor is warranted to visit the installations and undertake a list of activities linked to that category of ticket. The ticket category can be of Quarterly, Half Yearly and Annual. To know the installation of a Class-specific and ticket Category-specific list of activities, kindly refer to Appendix Clause 7.5.6.

b) Time Limit:

It's expected that the vendor must complete the activities over the list of installations designated for that maintenance month within that calendar month itself.

It may be noted that they can work on any day without any bias to the day being notified as a holiday or otherwise.

c) Route/ Sequence:

Each installation must be visited once in every quarter, half-yearly and yearly for different categories of activities.

To maintain a uniform gap between the visits every time, the vendor is expected to stick to an optimal sequence in a route.

The number of routes that the vendor identifies depends on how big the list and how many technicians are to be deployed.

Care must be taken so that all installations not only are resolved within a month but also are closed.

d) Score:

On successful completion of one ticket as per the service standard, the vendor will earn certain points, and for each default, it will earn a negative score which is designed to be a deterrent.

Visits	Activity Types	Earnings	Penalties
Visit - 1	Q1	3	-9
Visit - 2	Q2	3	-9
VISIL - Z	H1	1	-3
Visit - 3	Q3	3	-9
	Q4	3	-9
Visit - 4	H2	1	-3
	A1	1	-3

The scores are:

- 7.7.9.2. Corrective Maintenance:
 - a) Service Standards:

While the Schedule Maintenance regime focuses on the vender's certainty and regularity of visit to the installation as his performance parameter, Corrective Maintenance Regime focuses on the Timeliness of the vendor to respond to a breakdown situation.

The vendor upon being notified of a breakdown situation shall have to complete his assessment within 2 days and complete the repair work within the next 5 days. All (100%) tickets must be resolved within the time limit given above. If the scope of repair/ replacement is found to be beyond the scope of Maintenance Contract (MC), then the vendor immediately after the field reconnaissance must report the same to the CRC.

- i. It is expected that at any point in time, none of the vendors would be having cases older than 7 days pending in their list.
- ii. And, no vendor's installations under a scheme should show 'Non-Working' status of more than 2% of the installations.
- b) Methodology:

Corrective maintenance requires a different approach as against the scheduled maintenance methodology. While the scheduled maintenance is predictable, corrective maintenance requires a case-specific approach. The following are recommendations for the most efficient methodology. But the vendors are free to adopt their own if they are complying with the time limit.

c) Reconnaissance:

Within 2 days of the ticket date.

- i. When a request of service is registered, the vendor as the first response must organize the collection of field level information about the nature of the problem.
- ii. Based on that feedback from the field, the vendor must decide the following;
 - The genuineness of the request,
 - If the requirement of repair is beyond the scope of his MC,
 - If it is within his scope, then, he must arrange labor, spares, materials needed for the repair, and mobilize them to attend the breakdown at the spot.

This will help the vendor to resolve the request in one visit. This is more necessary as at times the villagers without ascertaining the owner of the installation, register a request in the CRC, and, as there is the possibility of multiple installations in one village and the data matches, the ticket is raised against a working installation.

d) Repair:

Within 7 days of the ticket date.

- i. The authorized technicians of the vendor must move to the location with the resources to undertake the repair.
- ii. Upon completion of the repair, the installations must be tested in the presence of the customer/ custodian.
- iii. Requisite evidence and documentation must be completed by the technicians and immediate intimation need to be sent to the CRC.
- e) How to handle repair beyond the scope of MC
 - i. At the reconnaissance stage, when the vendor realizes that the requirement is beyond the scope of MC, he must request closure giving appropriate reasons.
 - ii. He must use the same communication channel as he would have used for resolution,
 - iii. The CRC then would take it off the Vendor list and transfer it to the OREDA list.
 - iv. OREDA will take this matter up with their principals for resolution.
- f) Score:
 - i. Each vendor at the start will be given a Credit account of 8760 hrs. (365 Days x 24 hrs.) for each of the installation he is responsible for maintenance. That will be known as the 'Total Achievable Uptime'.
 - ii. When a request for service gets registered at the CRC the clock is started from the next day. The day the Vendor responds to a ticket informing successful resolution, the Clock stops on that day.
 - iii. At the end of a period, the time taken for each ticket for a resolution, which is converted into hours gets deducted from the 'Total Attainable Uptime' of that Ticket.
 - iv. And if the resolution time exceeds the set time of '7 Days', the system will treat those additional days with twice the score.

v. The system is so designed that the lesser the time is taken to resolve, the higher will be his Net Score. More he takes time to resolve; higher will be his penalty score which may erode his other good works.

7.7.10. Implementation:

7.7.10.1. Training and Orientation:

OREDA will conduct orientation and training sessions for the Vendors and their technicians

7.7.10.2. Helpdesk:

OREDA CRC will provide support to the field personnel of the vendors to acquaint themselves with various communication and process protocol.

7.7.10.3. Performance Evaluation:

The following paragraphs explain the way OREDA will evaluate both the performances and how it will turn it into a composite score of performance. The Scheduled Maintenance activities have been given primacy over the Corrective Maintenance activities. While the Scheduled Maintenance is given 80% weightage in the composite score, Corrective Maintenance is given 20%.

7.7.10.4. Computation of performance

Examples from the shared Excel sheets may be incorporated.

7.7.10.5. Rewards and Recognitions

OREDA will do everything under its might to support the good performance of the vendors as achieving very high uptime of its installation and good customer relationship is its prime organizational focus. It also will weed out non-performing vendors by penalizing them for their bad performance and blacklisting them for good.

OREDA will.

- a) Give preference to the high performing vendors in the upcoming tenders.
- b) Institute Awards and Recognition during important days of OREDA
- c) Recover Liquidated Damages in the shape of penalties
- d) Blacklist vendors whose past performances are not at all good

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