

in line with the demand pattern of the Discom

- 83. “Technical Criteria”** As defined in Clause 2.1 (B) of RfS.
- 84. “TOE”** shall mean Tender Opening Event.
- 85. “ULTIMATE PARENT COMPANY”** shall mean a Company, which owns more than 50% (Fifty Percent) voting rights and paid-up share capital, either directly or indirectly in the Parent and Affiliates;
- 86. “Wp”** shall mean Watt Peak.
- 87. “ZR”** shall mean Zonal Railways (including workshops), Production Units (PUs) & Railway Training Institutes. Words “ZR” and “Railways” have been used interchangeably in RfS & PPA.
- 88. “Total Project Cost”** means the capital cost incurred on construction and financing of the Project and shall be limited to the lowest of;
- (a)** The capital cost of the Project Assets as set forth in the Financial Package;
 - (b)** The actual capital cost of the Project Assets upon completion of the Project.

Provided that in the event of Termination, the Total Project Cost shall be deemed to be modified to the extent of variation in WPI or Reference Exchange Rate occurring in respect of Adjusted Equity and Debt Due, as the case may be, in accordance with the provisions of this Agreement;

D: Interpretations

1. Bids must be submitted strictly in accordance with the instructions provided in the RfS document.
2. Words comprising the singular shall include the plural & vice versa.
3. An applicable law shall be construed as reference to such applicable law including its amendments or re-enactments from time to time.
4. A time of day shall save as otherwise provided in any agreement or document be construed as a reference to Indian Standard Time.
5. Different parts of this contract are to be taken as mutually explanatory and supplementary to each other and if there is any differentiation between or among the parts of this contract, they shall be interpreted in a harmonious manner so as to give effect to each part.

The table of contents and any headings or sub-headings in the contract has been inserted for case of reference only & shall not affect the interpretation of this agreement.

Section 1: INFORMATION TO BIDDERS

1.1 Background

- 1.1.1. Indian Railways is engaged in the business of running freight and passenger train services in the country. Presently Railway is taking power as Deemed Licensee in many states. Being one of the largest electricity consumers in India, the Indian Railways (IR), aims to become a “net zero” carbon emissions organization by 2030. In this quest, it has been undertaking multiple initiatives to diversify its energy portfolio towards greener sources of energy. Accordingly, Railways is in process of setting up about 3,000 MW solar plants under at various locations in India on railway owned land plots. The bid process for these plants is underway.
- 1.1.2. As more renewables come into the generation portfolio, there is an increased need to stabilize integration of RE into the grid. Solar-plus-storage hybrid systems are slowly gaining traction across the world as battery prices continue to fall and penetration of renewable energy sources like solar continues to rise. Solar energy is fluctuating and is able to generate power only during solar hours. Thus, to optimize solar energy’s contribution in the energy mix, it is imperative to include battery storage in the overall generation from a hybrid system. This system provides clean and sustainable power generation from renewable energy sources.
- 1.1.3. On this background, Railways plans to set up its first pilot solar PV power plant coupled with battery energy storage (BESS) on Railway land at ButiBori, near Nagpur in Maharashtra. The power generated from this solar power plant would be required to be injected at the ButiBori TSS / Butibori STU (MSETCL) as per the details enclosed in this RfS.
- 1.1.4. REMC Ltd. is a joint venture of India Railways (49%) and RITES Ltd. (51%), incorporated to manage Energy Management portfolio of Indian Railways, which includes procurement of economical power through open access, harnessing green energy etc. Accordingly, REMC Ltd. has been advising Railways in managing its energy needs including harnessing renewable energy.

- 1.1.5. REMC Ltd. invites solar developers to participate in the bidding process for **“Setting up of 15 MW solar PV power plant with 7 MW / 14 MWH BESS at Railway land at Butibori, Nagpur, Maharashtra under tariff based competitive bidding”**. Nodal/Zonal Railway shall enter into a Power Purchase Agreement (PPA) of 25 years with the selected Bidder based on this RfS.

REMC Ltd. will act as Bid Process Coordinator. REMC Ltd. shall discover the tariff of solar power through open competitive bidding and shall be responsible for complete tendering process till award of work. REMC Ltd., if authorized by Nodal Railway, may interact with SPD & Nodal Railway during the currency of PPA.

- (a) PPA should be signed within 30 days of issue of LOA and signing of PPA may be further extended by maximum 30 days by Nodal Railway. If SPD fails to sign the PPA in the above time period, on intimation by Nodal Railway, REMC Ltd. may encash the Bid security submitted by the SPD. However, the period of signing of PPA can be extended further by Nodal Railway with the consent of SPD.
- (b) The power from this plant will be utilized by Railway principally at Butibori traction sub-station.
- (c) Ministry of Power (MoP) has issued “Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar PV Power Projects” vide Gazette Resolution dtd. 03.08.2017 along with all amendments. These Guidelines have been used under the Provisions of Section 63 of the Electricity Act, 2003 for long term Procurement of electricity by the ‘Procurer’, from Grid connected solar PV Projects, having size of 5 MW and above, through Competitive Bidding.
- (d) Solar project will be provided on the identified Railway land near Butibori TSS.
- (e) Suitable land use Authorization Letter will be issued by REMC Ltd./ NR to selected SPD and signed by the SPD with Nodal Railways within 30 days from signing of the PPA.
- (f) Connectivity with the TSS / STU grid shall mean the point at appropriate voltage level, where the power from the Solar Power (Plus Storage) Project is injected into the identified Railway TSS / InSTS (STU) (including the dedicated transmission line connecting the Projects with the substation system) as specified in the Bid document. Metering shall be done at this

interconnection point where the power is injected into TSS / STU. For interconnection with grid and metering, the SPDs shall abide by the relevant CERC / SERC / Railways Regulations, Grid Code and Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended and revised from time to time.

- (g) The responsibility of getting the grid connectivity and Long-Term Access (LTA) from STU, if applicable, on behalf of Nodal Railway shall entirely be of the SPD. The LTA shall be applied by the selected SPD and the cost for the same shall be reimbursed by Nodal Railway. However, in case of STU, availability of transmission system being dynamic in nature, the selected SPD must ensure actual availability of power injection / evacuation capacity at a grid substation. The transmission of power up to the point of interconnection where metering is done for energy accounting, shall be the responsibility of the selected SPD at his own cost. In case a selected SPD is required to use InSTS to bring solar power Nodal Railway interconnection / delivery point, he may do so as per rule and regulations prescribed by the respective SERC in this regard. The maintenance of Transmission system up to the interconnection point shall be responsibility of the selected SPD.
- (h) The arrangement of connectivity must be made by the SPD through a dedicated transmission line which the SPD shall construct himself. The entire cost of transmission including cost of construction of line, wheeling charges, SLDC/Scheduling charges, SOC, MOC, maintenance, losses etc. and any other charges from the project up to the interconnection point will be borne by the SPD.
- (i) The transmission connectivity to the selected SPD may be provided by the TSS / STU, as the case may be, prior to commissioning of the project on the request of the SPD, to facilitate testing and allow flow of infirm power generated into the grid to avoid wastage of power.
- (j) The selected SPD shall comply with CERC / SERC regulations on Forecasting, Scheduling and Deviation Settlement, as applicable and shall be responsible for all approvals related to LTA and Connectivity.
- (k) The Buying Entity i.e. Nodal Railway will be responsible for all transmission charges and losses and any other charges as applicable under the

respective regulations beyond Interconnection point / Metering point/ Delivery point and up to the Drawl point, if applicable.

- (l) At least 30 days prior to the proposed commissioning date of the Project, the SPD shall be required to submit an approval letter from Nodal Railway (TSS) / State Transmission Utility (STU), as applicable, confirming technical feasibility of connectivity of the plant to the TSS / STU substation.
- (m) The scheme for power evacuation quoted by bidder will interalia incorporate, but not limited to, the following:
 - i. PV Panels arrangement to generate solar power of said capacity at suitable voltage.
 - ii. Suitable inverter having input of suitable voltage and giving suitable AC output.
 - iii. Battery energy storage system of the mandated power and energy capacity complying with technical specifications and other requirements mentioned in this RfS.
 - iv. Suitable power conditioning unit (PCU) / Inverter having input of suitable voltage and giving suitable AC output.
 - v. Transformers for stepping up inverter output voltage to the grid interconnection voltage level.
 - vi. Suitable smart energy meter along with required metering infrastructure (as applicable).
 - vii. Transmission Lines, evacuation switchgear at the plant and the interconnection substation, etc.
 - viii. Associated Protection System.
 - ix. Associated cables and electrical panels
- (n) The railway land plots being provided for this project is near to the track and the station. In rare case if the Railways decides / wants to take back the land in which Solar Plant is installed, railways will provide suitable alternative site with the nearly similar insolation and connectivity with TSS / STU and bear the cost of dismantling, transportation, reassembling and procurement of any consumable material that cannot be used from the existing solar plant in addition to the cost of deemed Generation as per the relevant provisions in PPA. The SPD will carry out such shifting within a period of six (6) months from the date of providing of alternative site by Nodal Railway. However, there

shall be lock in period of ten (10) years from the date of commissioning of the plant and during this period the land shall not be taken back by the Railways. After this lock in period in case the land is required to be taken back by the Railways, a cost benefit analysis of shifting vis a vis termination would be carried out by the Nodal Railway, before taking this decision of shifting the solar power plant to a new site. The SPD shall be given the choice of shifting the plant to the new location or terminating the PPA and taking back the plant from the land.

- (o) The SPD will provide suitable protection & security of the solar plant.
- (p) Power Off-take: Power / energy generated from the solar plant shall be purchased by Nodal Railway in accordance with the provisions of Power Purchase Agreement.
- (q) The Bidder is advised to carefully read all instructions and conditions appearing in this document and understand them fully. All information and documents required as per the bid document must be furnished. Failure to provide the information and/ or documents as required may render the bid technically unacceptable. The selected bidder or the special purpose vehicle company incorporated by it prior to execution of the PPA (the "SPD"), shall be responsible for designing, engineering, financing, procurement, construction, operation and maintenance of the Project under and in accordance with the provisions of a long-term PPA (the "Power Purchase Agreement") to be entered into between the Selected Bidder and the Railways / Nodal Railway in the form provided by the REMC Ltd. as part of the Bidding Documents pursuant hereto. The bidder shall be deemed to have examined the bid document, to have obtained his own information in all matters whatsoever that might affect the carrying out the works in line with the scope of work specified elsewhere in the document at the offered rates and to have satisfied himself to the sufficiency of his bid. The bidder shall be deemed to know the scope, nature and magnitude of the works and requirement of materials, equipment, tools and labour involved, wage structures and as to what all work she has to complete in accordance with the bid documents irrespective of any defects, omissions or errors that maybe found in the bid documents.

1.2 Bid Capacity

1.2.1 The project being offered under this RfS is of the capacity of 15 MW solar PV plant coupled with BESS of 7 MW / 14 MWH capacity to be executed in the offered two land plots of total 111 acres, which are owned by Nodal Railway and are offered to the successful bidder, for this project on the long-term use rights for equal to/ higher than the PPA period. The power is to be evacuated either at 1-phase 25 kV or 2-phase 220 kV at the Butibori Railway TSS or at 3-Phase 220 KV at Butibori STU (MSETCL) substation. However, the evaluation shall be carried out based on the tariff applicable at Butibori TSS. In case the bidder has quoted tariff at Butibori (STU (MSETCL)) substation for interconnection at any voltage level on the grid (STU (MSETCL)) side of the current railway meter, the addendum of cost to railways upto Butibori TSS shall be added for financial bid evaluation. In case the bidder has quoted tariff at Butibori TSS for interconnection at any voltage level, the addendum of cost to railways upto Butibori TSS shall not be added and financial bid evaluation shall be carried out on quoted tariff. The addendum shall be informed to the bidders at least 7 days prior to the Bid Due Date.

The necessary evacuation infrastructure including transmission line, switchgear and metering at delivery / interconnection point shall be the responsibility of the bidder. The successful bidder shall operate and maintain the plant and the infrastructure upto the delivery point for the period of PPA (25 years) from the COD.

1.2.2 Available land details are presented in the Annexure F of the RfS.

1.2.3 The Bidder shall apply for the full project capacity only. Bidder cannot apply for part capacity.

1.2.4 OBTAINING RfS& PPA DOCUMENTS

The RfS& PPA document can be downloaded from the website of M/s Electronic Tender.com (India) Pvt. Limited <https://www.bharat-electronictender.com>.

Note: Interested bidders have to download the official copy of RfS& other documents after login into the ISN-ETS portal by using the Login ID & Password provided by

ISN-ETS during registration. The bidder shall be eligible to submit/ upload the bid document only after logging into the ISN-ETS portal and downloading the official copy of RfS& PPA.

(a) COST OF DOCUMENTS & EARNEST MONEY DEPOSIT (EMD)

Prospective Bidders interested to participate in the bidding process are required to submit their Project proposals in response to this RfS document along with bid document fee (non- refundable) & EMD as mentioned in the Bid Information Sheet. A bidding Company/ Consortium will be eligible to participate in the bidding process only on submission of entire financial amounts as per the Bid Information Sheet. In case the Bidder chooses to submit the amounts pertaining to Cost of RfS document through NEFT/RTGS (electronic transfer) & EMD in the form of bank Guarantee along with response to this RfS, the Bidder shall submit the transaction receipt instead of the corresponding DDs, as part of the offline bid submission.

The bank details of REMC Ltd are as follows :

Axis Bank

A/c. No. 913020000871191,

IFSC Code- UTIB0000131,

Branch- DLF, GURGAON

Bids submitted without cost of the RfS document and/ or Bank Guarantee against Earnest Money Deposit (EMD) (including partial submission of any one of the respective amounts), may be liable for rejection by REMC Ltd .

- 1.2.5 Dispensation for MSMEs:- All MSMEs bidders who are having Udyog Aadhaar certificate will be exempted for payment of Bid Document fee & Bid Security as defined in Bid Information Sheet. Documentary evidence in respect of above shall require to be submitted. It is clarified here that no other benefit as mentioned above shall be extended to MSMEs.

1.3 Site Visit and Assessment

REMC Ltd. may arrange a site visit and the site-based briefing at Butibori TSS and prospective bidders shall be invited to be present there for which date and time shall be notified through the ETS portal. REMC Ltd. representative shall be available at the site to appraise the bidders of all the relevant information. All the participants shall be briefed and then everyone could visit the offered land plot/s, the TSS and discuss various findings, issues, views and possibilities regarding the proposed project. The bidders shall also be able to visit the nearby pre-identified STU (MSETCL) substation, which is one option offered as the interconnection point. Bidders shall have to make their own arrangement for the site visit.

Annexure F of the RfS provides the site details.

- 1.3.1 The bidders may also directly visit the proposed site before submitting the bid and get himself acquainted with all the features of the land plots. The bidder shall also study the proposed evacuation options and get all necessary information about the possible power evacuation during the site visit.

1.4 Proprietary Data

- 1.4.1 All documents and other information supplied by REMC Ltd. or submitted by a Bidder to the REMC Ltd. shall remain or become the property of REMC Ltd.. Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their Bid. The REMC Ltd. will not return any Bid or any information provided along therewith.

1.5 Correspondence with the Bidder

- 1.5.1 Save and except as provided in this RfS, REMC Ltd. / Railways shall not entertain any correspondence with any Bidder in relation to the acceptance or rejection of any Bid.

1.6 Commercial Operation Date (COD)

- 1.6.1 The Commercial Operation Date (COD) shall be considered as per scheme. Statutory approvals / requirements of the state, if required for interconnection of solar plant, shall be the responsibility of SPD.
- 1.6.2 The Commissioning of Project: This will be on a date, when the Project meets the criteria defined for project commissioning. Nodal Railway may authorize any individual or committee or organization to declare the project commissioned on site. Any infirm power produced and flowing into the TSS / CTU / STU before COD shall not be at the cost of Nodal Railway under this scheme and SPD cannot sell this power to any other organization or individual.

1.7 Criteria for Power Supply

1.7.1 The detailed requirement for CUF to be declared and maintained during the PPA period is described in the PPA. The SPD shall comply with all requirements of guaranteed supply, shortfall in supply and excess supply as per the terms of the PPA.

The PPA and the Annexure A of the RfS provide details for the committed power supply criteria for the project. Accordingly, the following are the major criteria for performance assessment.

- CUF – Minimum 17% for the PPA period
- BESS availability – 98%
- BESS Efficiency – 80%
- End of Battery Life - >10 years

Scheduling and Off-take of Power

The SPD shall comply with all the applicable scheduling and forecasting requirements of the state regulator / STU (MSETCL) / TSS, as the case may be, depending on the interconnection point of the project.

SPD shall operate and maintain the plant in such a way that the availability of the contracted capacity of the plant is at least 90% during each year of the PPA period.

1.7.2 The Power Purchase Agreement sets forth the detailed terms and conditions for grant of the contract to the SPD, including the scope of the SPD's services and obligations; obligations of Railways and Railway's rights to amend, alter, change, supplement or clarify the scope of work. The Agreement to be executed will be in pursuant to this RfS or the terms thereof or herein contained. Consequently, any omissions, conflicts or contradictions in the Bidding Documents including this RfS are to be noted, interpreted and applied appropriately to give effect to this intent, and no claims on that account shall be entertained by the Railways.

1.7.3 REMC Ltd. shall receive Bids pursuant to this RfS in accordance with the terms set forth in this RfS and other documents to be provided by the REMC Ltd. pursuant to this RfS, as modified, altered, amended and clarified from time to time by the

REMC Ltd. (collectively the “Bidding Documents”), and all Bids shall be prepared and submitted in accordance with such terms on or before the date specified in Clause 1.9 for submission of Bids (the “Bid Due Date”).

1.8 Brief description of Bid Submission Process

1.8.1 The bidding process will be a single stage process. The bidders will submit one bid package comprising of the technical and commercial qualification with supporting documents and a price bid corresponding to the requirements of Request for Selection, as provided in clause 1.11 of RfS. REMC Ltd. will first evaluate the technical and financial qualification submitted by the bidders. Only those bidders who meet the technical and financial eligibility under this stage will have their price bids opened by the REMC Ltd. on <https://www.bharat-electronictender.com> website

1.9 Bid Due Date

1.9.1 Bids shall be submitted before specified time on the Bid Due Date, at the address provided in Clause 1.11 in the manner and form as detailed in this RfS.

1.10 Validity OF Bid

1.10.1 The bid shall remain valid for a period of 180 days from the Bid due date, with bidder having no right to withdraw, revoke or cancel his offer or unilaterally vary the offer submitted or any terms thereof. In case of the bidder revoking or cancelling his offer or varying any term & conditions in regard thereof or not accepting LOA, REMC Ltd. shall forfeit the Bid Security furnished by him. Confirmation regarding the Bid offer validity shall be clearly mentioned in the covering letter.

1.10.2 In exceptional circumstances when LOA is not issued, REMC Ltd. may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The Bid Security provided as in the mentioned format shall also be suitably extended. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request will neither be required nor permitted to modify its Bid in any manner.

1.11 Method of Bid Submission

Documents to be submitted Offline (in Original)

1.11.1 The bidder must submit the documents in original as part of Response to the RfS to the address mentioned in Bid Information Sheet before the due date and time of bid submission.

1.11.2 Bidding Envelope: Super scribed as “Bidding Envelope containing Covering Envelope, Pass Phrase Envelope -1 & Pass Phrase Envelope -2” at the top of the Envelope and “Name & Address of the Bidder” on the left-hand side bottom must contain the following:

i. Covering Envelope: Super scribed as “Covering Envelope Containing Cost of Bid Document, Bank Guarantee towards bid security, and Covering Letter, Power of Attorney (if applicable), Consortium Agreement (if applicable), Board Resolution” must contain the following:

- DD/Pay order or NEFT/RTGS/ details towards Cost of Bid document as mentioned in Bid Information Sheet.
- Bank Guarantee towards Bid Security as mentioned in the Bid Information Sheet.
- Covering Letter in prescribed format
- Power of Attorney in prescribed format (if applicable),
- Board Resolution in prescribed format, as applicable.
- Consortium Agreement in prescribed format (if applicable)
- GSTN along with respective registered address of the Bidder on the letter head of the Bidder (signed by the Authorized signatory)
- Integrity Pact as per Annexure K

ii. Pass – Phrase Envelope - 1: Containing Pass Phrase for Technical Bid duly signed by the authorized signatory in sealed envelope.

iii. Pass-Phrase Envelope-2: Containing Pass Phrase for Financial Bid duly signed by the authorized signatory in sealed envelope.

The bidding envelope shall contain the following sticker: (illustration)

Response to RfS for “Setting up of 15 MW solar PV power plant with 7 MW / 14 MWH BESS at Railway land at Butibori, Maharashtra under tariff based competitive bidding”	
RfS Reference No.	(Enter Ref No. of the RfS)
Submitted by	(Enter Full name and address of the Bidder)
Authorized Signatory	(Signature of the Authorized Signatory) (Name of the Authorized Signatory) (Stamp of the Bidder)
Bid Submitted to	CEO REMC Ltd, Ground Floor, Central Wing, Plot No. 1, Sector-29, Gurgaon-122001

Important Note:

- i. The Bidders shall not deviate from the naming and the numbering formats mentioned above.
- ii. In each of the Envelopes, all the documents enclosed shall be indexed and flagged appropriately, with the index list indicating the name of the document against each flag.
- iii. All the Envelopes shall be properly sealed with the signature of the Authorized Signatory running across the sealing of the envelopes.

A. Documents to be submitted Online

The Bidders shall strictly follow the instructions mentioned in the electronic form in the RfS technical bid and financial bid while filling the form.

If the Bidder has submitted offline documents and fails to submit the online bid, then the same shall be treated as incomplete bid and bid will be rejected. Cost of Bid document submitted shall be encashed and the bid security shall be returned.

All documents of the response to RfS submitted online must be digitally signed on ISN-ETSPortal (<https://www.bharat-electronictender.com>) which should contain the following:

1. “Technical Bid (First Envelope)”

The Bidder shall upload single technical bid containing the scanned copy of all the documents duly signed and stamped on each page by the authorized signatory along with all attachments and all the supporting documents regarding meeting the eligibility criteria.

- (a) Formats - 6.1 to Format 6.12, as applicable.
- (b) All attachments and supporting documents
- (c) All supporting documents regarding meeting the eligibility criteria.
- (d) Scanned Copies of NEFT/RTGS/DD/Pay order details towards Cost of RfS Document as mentioned in Bid Information Sheet.
- (e) Scanned Copies of requisite amount of Bank Guarantee towards EMD as mentioned in the Bid Information Sheet.
- (f) The Bidder will have to fill the Electronic Form provided at the <https://www.bharat-electronictender.com> portal as part of Technical Bid.

2. “Financial Bid (Second Envelope)”

Bidders shall submit the single Financial Bid containing the scanned copy of following document(s):

(a) attachments are:

- I. Format for submission of Financial Bid as per format 6.13 of this RfS document;
- II. Break-up of Estimated Project Cost as per Format 6.14 of the RfS document

Only single tariff bid shall have to be filled online in the Electronic Form provided at the <https://www.bharat-electronictender.com> portal. In case of discrepancies in the tariff quoted in the electronic form of <https://www.bharat-electronictender.com> portal and tariff quoted in the uploaded scanned copy of the price bid, the lower of the tariff quoted shall be considered as final.

The Bidders, including their successors, (the “Bidders”, which expression shall, unless repugnant to the context, include the Members of the Consortium) will submit their (“Bids”) comprising of the technical and financial qualification to demonstrate eligibility under RfS and financial offer/price bids