



HPGRE RENEWABLE AND GREEN ENERGY LIMITED (HPRGE)

Domestic Competitive Public Bidding

Invitation for Pre-Tender Meeting towards tender for

For

**LAND AND EHV TRANSMISSION SYSTEM PACKAGE FOR DEVELOPMENT
OF ISTS CONNECTED SOLAR PV PROJECTS OF 600MW
IN THE STATES OF GUJARAT, MAHARASHTRA, ANDHRA PRADESH, RAJASTHAN, KARNATAKA,
AND TAMIL NADU**

Link for Pre - Tender Meeting	All the prospective interested bidders may participate in the Pre - Tender Meeting through Video Conference at 11:00 AM 21.06.2024 with following link. https://hpc-lin.zoom.us/j/97379490007?pwd=KWxn4KHaOvmM2b3Cc4rlyy9VGbfsXj.1 Meeting ID: 973 7949 0007 Passcode: 135256
Bid Validity	120 days from the due date/ extended due date whichever is later

Head - Central Procurement Organization, Hindustan Petroleum Corporation Limited (hereinafter referred to as 'the Procurement Authority', 'the Head of Procurement', 'the Procuring Entity'), invites bids on behalf of HPGRE Renewables & Green Energy Limited (the 'Procuring Organization') for entering into a contract for the supply of GOODS/ SERVICES (hereinafter referred to as 'the Goods/ Services'). This Tender Document (hereinafter referred to as 'the Tender Document'), gives further details.

Note: Prospective bidders are requested to depute their senior and competent representatives who are authorized to attend the meeting

DISCLAIMER: This Pre-tender meeting invitation is issued by the Hindustan Petroleum Corporation Ltd., for general information purposes only, with regard to Corporation's requirement on bidder's readiness to participate in the tender. This should not be construed as an offer to sell or solicitation of an offer to buy, purchase or subscribe to any platform/solution but is merely an invitation to discuss solution required for HPCL & bidder's eligibility on terms & conditions of HPCL. Neither, this meeting invitation nor anything contained herein shall form the basis of or be relied upon in connection with any contract or commitment whatsoever from the Company. This invitation Document constitutes no form of commitment on the part of the Company or any of their group companies. Furthermore, this invitation Document confers neither the right nor expectation on any interested parties to be selected to participate in the Bid Process and nothing in this invitation Document or subsequent submission of any Document by a Bidder constitutes a contract between the Company or any other entity and the interested parties. The Company reserve the right to accept or reject any response/suggestion given by any interested participant. Bidders should regularly visit Company's website to keep themselves updated regarding clarifications/ amendments/ time extensions, if any. No financial obligation will accrue to the Company in such an event. The Company shall not be responsible for non-receipt of correspondence sent by any Bidder through any mode. The Company shall in no circumstances, be responsible to bear or reimburse any expenditure or costs incurred by any Bidder in respect of the participation in this meeting. The intent of the notice is to interact with the prospective bidders for any deviations & clarification in scope of job and selection methodology.

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Abbreviations used in this Tender

Sr. No.	Abbreviation	Meaning
1	PO	Purchase Order
2	PQC	Pre-qualification Criteria
3	PAN	Permanent Account Number
4	EMD	Earnest Money Deposit
5	BG	Bank Guarantee
6	CPBG	Composite Performance Bank Guarantee
7	SD	Security Deposit
8	MSE	Micro & Small Enterprises
9	GST	Goods and Service Tax
10	PLR	Prime Lending Rate
11	DD	Demand Draft
12	GTC	General Terms and Conditions
13	SBI	State Bank Of India
14	SOR	Schedule of Rates
15	GST	Goods and Service Tax
16	CGST	Central Goods and Service Tax
17	SGST	State Goods and Service Tax
18	IGST	Integrated Goods and Service Tax

1. INSTRUCTION TO BIDDERS

- i. This is only an e-Tender Enquiry and not an order. HPRGE reserves the right to cancel it at any stage without assigning a reason.
- ii. The tender should be submitted online only, by the stipulated due date and time, as specified in the tender. Late / delayed tenders submitted online after the due date and time, for whatsoever reasons will not be considered. Offers sent through post, telegram, fax, telex, e-mail, courier will not be considered.
- iii. All communication regarding the tender including queries, if any, and submission of offers shall be done online.
- iv. Two Bid System: Bidders are required to submit offer in two parts, namely “Unpriced (Technical Bid)” & “Priced Bid”.
- v. Bidders shall be required to arrange all resources, including Digital Certificate and Internet connections at their own cost, for participating in online tenders.
- vi. HPRGE shall not be responsible for any delays reasons whatsoever in receiving as well as submitting offers, including connectivity issues. HPRGE shall not be responsible for any postal or other delays in submitting EMD / tender cost wherever applicable.
- vii. HPRGE will not be responsible for the cost incurred in preparation and submission of bids including the cost of digital certificate, regardless of the conduct of outcome of the bidding process.
- viii. Bidders are requested to quote unit rates (per unit quantity) in the on-line price bid only.
- ix. Please do not quote / mention rates anywhere else in the tender other than online price bid. In case bidders quote rates at any other place (other than online price bid), **THE OFFER OF PARTY SHALL BE REJECTED.**
- x. Bidders shall quote door delivery price at the respective plants as per the delivery schedule mentioned including all duties & taxes, transit insurance, and packing & forwarding & freight charges.
- xi. Request for extension of tender submission due date, if any, shall be considered at the sole discretion of HPRGE however, request for extension received within three (3) days for public tender of tender submission due date /time may not be considered.
- xii. HPRGE may, at its discretion, on giving reasonable notice online to extend the bid due date, in which case all rights and obligations of the HPRGE and the Bidders, previously subject to the bid due date, shall thereafter be subject to the new bid due date as extended.

xiii. **DEVIATIONS TO TENDER TERMS:** Bidders are requested to accept tender terms/conditions in totality and should avoid deviations.

xiv. **Break up of Purchase:**

- HPRGE Shall Place two Separate Purchase orders (PO) per schedule as mentioned below;
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- **First Purchase Order** shall be placed for:-
 - For Ex-works (India) supply of all plant and equipment including mandatory spare
 - For providing all services i.e. Receipt, unloading at site, storage, installation, testing and commissioning, Inland Transportation for Delivery at Site, Inland Transit Insurance, Unloading, Storage, Handling at Site, Installation (including civil work & allied work, if applicable), insurance covers other than Inland Transit Insurance, Testing and Commissioning of all the equipment supplied under the 'First Contract', and Civil Works, Land Area Development, acquiring RoW, Infrastructure Development & evacuation facility & all other services specified in the Contract Documents.
 - Acquisition/ Transfer of Land (applicable for Private Land as per Technical Specification)
- **Second Purchase Order** shall be placed for Operation & maintenance of complete power evacuation system till interconnecting grid substation (including grid substation bays) along with consumables and spare parts for a period of Three (03) years from the date of commissioning of Full Project Capacity (hereinafter referred as "O&M contract").

xv. **Order of Precedence**

In case of an irreconcilable conflict amongst General Conditions of Contract (GCC) and other conditions mentioned in Scope of Work, SCC, Specifications or Price Schedule / Schedule of Rates, the following shall prevail to the extent of such irreconcilable conflict in order of precedence:

- a. Final Contract Agreement
- b. Letter of Acceptance (LoA) / Work Order
- c. Special Conditions of Contract (SCC)
- d. Scope of Work
- e. Instruction to Bidders
- f. General Conditions of Contract (GCC)

xvi. Contact Details:

CONTACT PERSONS FOR TECHNICAL/COMMERCIAL CLARIFICATIONS			
	CONTACT PERSONS NAME/ DESIGNATION	LAND LINE NO /MOBILE NO	EMAIL ID
Technical Query	Mr. Gagandeep Singh Sodhi GM-HPRGE	022-22068266	Email ID- gssodhi@hpcl.in
	Mr. Sanjeev Kumar Manager-HPRGE	7979987649	Email ID- Sanjeev.kumar@hpcl.in
	Mr. Swapnil Dahake Sr. Manager-HPRGE	9860894693	Email ID- swapnildahake@hpcl.in
Commercial Query	Mr. Ujwal C Sr. Manager CPO HPCL	9611199381	Email ID – ujwalchengala@hpcl.in

2. INTRODUCTION

HPGRE is planning to build renewable energy projects (Solar) in the states of **Gujarat, Maharashtra, Andhra Pradesh, Rajasthan, Karnataka & Tamil Nadu**. HPGRE has identified land as one of the key requirements. Therefore, this inquiry is floated to invite competitive bids for *“Identification and arrangement of required land, Design, Engineering, Supply, Construction, Erection, and Commissioning of EHV Transmission System up to ISTS substation for the 600MT capacity as defined in the tender document along with other scope of work defined in the specification.”*

This tender is being floated for acquiring land for setting up 600MW of solar plant (approx. 2400 acres) along with Design, Engineering, Supply, Construction, Erection, and Commissioning of EHV Transmission System up to ISTS substation.

It has been divided into two schedules of 300MW each (1200 acres approximately). Bidders are required to quote for minimum one schedule. Bidders can quote for both the schedules if they meet the PQC criteria. Bidders quoting for both the schedules can either quote for both the schedules at one location or at two different locations.

HPGRE invites online bids from eligible Bidders through a Single Stage Two Envelope (i.e., Envelope I – Techno-commercial Bid and Envelope II – Price Bid) for **Land and EHV transmission system Package for development of ISTS connected solar PV project of 300 MW (approximately 1200 acres)** in the states of **Gujarat, Maharashtra, Andhra Pradesh, Rajasthan, Karnataka & Tamil Nadu**.

SCOPE OF WORK / TERMS OF REFERENCE

The scope of the proposal shall be identifying and arranging of required land, Design, Engineering, Supply, Construction, Erection, and Commissioning of EHV Transmission System up to ISTS substation (Excluding pooling substation at solar plant end but including Bay Construction at Grid S/S) for 600MW capacity along with other scope of work defined in the specification. The scope also includes three (03) years Operation and Maintenance (O&M) of the transmission system and EHV bays at ISTS substation

2.1 Project requirements

Capacity of each project and at each location shall be 300 MW.

Each Project shall be physically identifiable with separate injection point and separate metering arrangement.

2.2 Land for Solar Project

Land for the solar project should be arranged by Bidder through following method for **not less than 29 years and 11 months** from the date of allotment to HPGRE:

2.3 Leasehold type – Government/Private Land shall be accepted.

Land can be Leasehold type Government land or Private land or in combination of both to provide contiguous land parcel at one location. The bidder shall submit proposed land parcel through Lease/sub lease only for 30 Years for 1200 Acres. The land offered must not be in or within **GIB zones, Coastal Regulation Zone, prohibited range of any wildlife protected area or forest area or defense establishment**. There should be no government restriction in setting up the solar power project on the offered land.

- A. During Post-Award, for any unavoidable reasons or practical conditions of site, if land for a Project/ at a location is sub-divided into two or more parts, any RoW for cabling/drainage, necessary approach road etc between plots (if not readily available) would be in the bidder's scope at no extra cost to employer. Additionally, the cost for interplot 33kV cabling to be done by HPRGE shall be recovered from the contract price as follows:

During detailed engineering, bidder shall finalize the plot in which proposed pooling substation shall be constructed by HPGRE (say, main plot). The RoW distance between each of the other sub plots to the main plot (boundary to boundary distance) shall be used for recovery calculation.

- B. **Rate = Rs 220 per Meter per MW.**

Right of Way for EHV transmission system from solar plant till point of grid interconnection for 29 years and 11 Months from date of allotment of solar project land to HPGRE, including all applicable documentation, financial transactions, compensation etc. shall be in Bidder's scope.

- 2.3.1 Private Land for the complete project with clear title (excluding evacuation system) and free from all encumbrances, charges, liens, encroachments or litigation and not subject matter of acquisition for any other purpose shall be leased to HPGRE.
- 2.3.2 Complete process of lease/sub-lease of land in favour of HPGRE shall be done within stipulated time schedule. All land documents required for applying for grid connectivity shall be submitted by the Bidder to HPGRE
- 2.3.3 Bidder shall consider the statutory charges like registration etc. applicable for land Lease/Sub lease which is payable to the Government while submitting their Price Bids
- 2.3.4 Document to establish Lease/Sub-lease of the 100% land for the project and unrestricted approach to the site shall be required after the award of work to the Successful Bidder
- 2.3.5 **The change in land parcels post award of Land & EHV Transmission System contract shall be allowed in compliance to the tender conditions, subject to the condition that there is no drop in evaluated annual generation for the new location w.r.t the original location submitted in the bid.** Post award, if Bidder changes the land, then relevant document containing all details of new land should be submitted by Bidder for each such project. Such change shall be the responsibility of Bidder keeping in view of timelines for connectivity application, land transfer, commissioning etc. Further, Bidder to refer other conditions related to change of land mentioned in commercial portion of bid document. Bidder would note that all other conditions of contract would remain same, if any changes are proposed by Bidder after award of contract as per above
- 2.3.6 Project site shall have identified motorable approach without any obstacle and ownership claim of any individual or agency.
- 2.3.7 All the applicable permit and clearance such as Environment/Forest, Mines, Airport, Non-Agriculture use etc. from the competent authority for the land shall be arranged/facilitated by the Contractor
- 2.3.8 Bidder have to obtain connectivity within a year from date of LOI.
- 2.3.9 Based on location of Solar Project, applicable project registration charges as per respective state policy if any, shall be borne by Bidder and considered as included in the quoted bid price. No additional payment in this regard shall be made by HPGRE. Project registration/application shall be done in the name of HPGRE. Preparation and submission of DPR (as required) shall be in Bidder's scope

Bidder shall be required to offer the following documents to HPGRE for Land as per tender conditions:

- a) Title Search report of period not less than 30 years validated by Registered Lawyer or Law Firm appointed by Contractor, certifying that the offered land title is undisputable, marketable, and suitable for registered lease or sublease or without claim and protest. Report shall clearly indicate name(s) of the title holder(s) of the land
- b) Encumbrance certificate/letter from competent land registering authority
- c) All required permit/NOC/approval or the land for setting up Solar project on the offered land and lease/sub lease of land to HPGRE

Note: Contractor shall be responsible to arrange all permission / NOC / approval for change of land uses etc. as applicable for unrestricted use of land

Clearance requirements

2.3.10 The Bidder shall arrange for the following clearances with respect to the scope of this tender and ensure necessary documentations / applications are in the name of HPGRE.

S. No	Clearance	Scope
1.	Water requirement during construction	To be arranged by Bidder
2.	Power requirement during construction	To be arranged by Bidder
3.	MOEF clearance (if applicable)	To be arranged by Bidder
4.	ROW clearance	To be arranged by Bidder
5.	SPCB clearance (if applicable)	To be facilitated by Bidder
6.	MNRE clearance (if applicable)	To be arranged by Bidder
7.	Any other Approval, permit / clearance from State Govt/Govt. departments & local body	To be arranged by Bidder

2.3.11 Bidder shall apply for necessary approvals, permits and clearances not more than 90 days from the issuance of LOA, which shall be complete in all respects, incorporating the clarifications/changes as required by the concerned authorities

2.3.12 All the statutory fees for approvals till the completion of O&M period shall be in the scope of Bidder (unless otherwise specifically mentioned in document)

Statutory compliance, grid connectivity, and evacuation

2.3.13 The Bidders shall comply with the following and all provisions and amendments thereof:

S. No	Compliance requirement
1.	Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022
2.	Detailed Procedure for Connectivity and General Network Access (GNA) to the ISTS
3.	CEA (Technical Standards for Connectivity to Grid) Regulation, 2007
4.	CEA (Technical Standards for construction of Electrical Plants and Electrical Lines) Regulation, 2010
5.	CEA (Grid Standard) Regulation, 2010

S. No	Compliance requirement
6.	CEA (safety requirements for construction, operation and maintenance of Electrical Plants and Electrical Lines) Regulations, 2011
7.	CEA (Measures relating to Safety and Electrical Supply) Regulations, 2010
8.	CEA (Installation and Operation of Meters) Regulations, 2006
9.	Indian Electricity Grid Code Regulation, 2010
10.	CEA (Technical standards for communication system in Power system operations) Regulation, 2020
11.	CERC (Communication System for Inter State Transmission of Electricity) Regulations, 2017
12.	MNRE guidelines/OM/Advisory/Clarifications
13.	All relevant guidelines mentioned in state solar policies

- 2.3.14 The sale of power for projects under this package can be through TBCB or merchant route. It shall be Bidder's responsibility for timely arrangement of quantum of land and other documents required for submitting connectivity application by HPGRE as per CERC regulations
- 2.3.15 EHV Transmission System should be designed for interconnection with ISTS substations of 220 kV or above voltage level. Identifying the ISTS substation for inter-connection and obtaining ISTS connectivity (including timely submission of all the required documents for the same) as per as per CERC connectivity regulation shall be the responsibility of Bidder
- 2.3.16 Bidders must submit the details of Grid Connecting substation(s) according to the selected Solar Plant location. Obtaining connectivity with the transmission system owned by the CTU, as per requirement, will be in the scope of the Bidder
- 2.3.17 HPGRE shall submit connectivity application to CTU, based on inputs provided by the Bidder and following the applicable connectivity norms/policies. HPGRE shall bear the application fee to be paid for connectivity application (Only First application). However, HPGRE shall not be liable if connectivity is not granted by CTU due to any reason (like non-availability of margin/capacity in the substation identified by Bidder)
- 2.3.18 If Bidder changes the ISTS substation for connectivity (subject to such changes are allowed by the regulations), HPGRE shall submit new connectivity application based on Bidder's input. However, the statutory fee for such revised/new connectivity application shall be borne by Bidder. Based on CTU/ regulatory requirement (as applicable), this fee for revised application shall be paid by HPGRE and will be recovered from contract price. In all cases, obtaining connectivity shall be the responsibility of Bidder
- 2.3.19 After obtaining connectivity approval from CTU, it shall be Bidder's responsibility for complete co-ordination for works from Solar project to interconnecting substation including R.O.W, transmission line route survey, collecting bay allocation details, clubbing of transmission line with other project developers before entering into grid substation as per CTU requirements, inputs for prior approval under section 68(1), subsequent approval under section 164 if intended by Bidder, line termination and associated works. Cost associated with all these works shall be borne by Bidder. Any co-ordination works with state nodal agency as required shall also be the responsibility of Bidder.
- Landed related works**
- 2.3.20 Arrangement of Government/Private contiguous Land (4 Acres / MW) on leasehold basis for 29 years and 11 Months (min). The land offered must not be in or within **GIB zones, Coastal Regulation Zone, prohibited range of any wildlife protected area or forest area or defense establishment**. There should be no government restriction in setting up the solar power project on the offered land.

- 2.3.21 Necessary approach road till plant boundary including any interconnection between plots (if not readily available) by self or through State machinery.
- 2.3.22 Topography Survey for Land Parcels and any cutting / filling with 95% compaction as per standard proctor density test, to maintain maximum slope of 10% for Solar Project Land for installation solar modules (**modules are not included in Bidder's scope**). Slope of land would preferably be in one direction for at least 100m length in N-S Direction
- 2.3.23 Geotech Investigation for Transmission System only as required for Design of Foundations.
- 2.3.24 Fencing of the offered Land including entry / exit gates (minimum 2 per plot) **including security cabins** for Solar Project except Transmission Line related Land.
- 2.3.25 Tree cutting with approval from concerned State/ Central Govt. machineries and removal of any buildings or non-required structures.
- 2.3.26 Providing water supply at every 250-acre land area through borewells.

Transmission system related works

- 2.3.27 Arrangement of grid connectivity with **ISTS substations**
- 2.3.28 Design and Construction of EHV Transmission Line till ISTS Sub-Station including arranging for the "Right of Way" of transmission line. Bidder is also required to liaise with Authorities and make appropriate payments for permissions/Right of Ways for the Transmission line execution. **Length of transmission line should be within 20km.**
- 2.3.29 Design and construction of terminal bay at ISTS end.
- 2.3.30 Telemetry system for data communication.
- 2.3.31 Supply of mandatory spares for transmission line.
- 2.3.32 O&M of EHV Transmission Line and terminal bay at ISTS end for a period of 3 years from the date of Project Commissioning. The bidder shall be responsible for supply of all spare parts, repairs / replacement of any defective equipment at his own cost as required from time to time during the O&M period. Procurement of spare parts, overhaul parts, tools & tackles, equipment, consumables, etc. required for smooth operation and maintenance of the plant per prudent/ standard utility practices, OEM recommendations and warranty clauses for the entire O&M period.
- 2.3.33 220 kV Over Head Transmission Line / Under Ground Cable (suitable for evacuation of 300 MW) including Towers, Conductors, OPGW cable, Insulators, Cable Termination Kits and associated accessories from 33/220 kV Pooling Substation to Interconnecting Substation as per CTU drawings/specifications including Right of Way, permits and approvals, CTU supervision and maintenance charges.
- 2.3.34 220 kV bay at interconnecting substation (suitable for evacuation of 300 MW) as per CTU drawings/specifications including shifting or replacement of substation equipment / materials, permits and approvals, CTU supervision and maintenance charges. Installation, Testing and Commissioning of ABT meters with all necessary metering rated CTs and PTs at Interconnecting Substation as per CEA Metering Regulations 2006 as amended time to time and state metering code.
- 2.3.35 The Contractor shall provide provision to integrate Special Protection Scheme (SPS), if required, in case the RLDC requires the same. In that event, details of SPS and its setting shall be worked out in consultation with RLDC & RPC.
- 2.3.36 Fibre Optic based communication system comprising of OPGW cable (having minimum 12 fibres) and hardware fittings for the transmission line and FOTE (STM-16) terminal equipment, FODP, approach cables and other associated equipment/accessories at interconnecting substation as per CTU specifications. The communication system shall facilitate for telemetry data communication, voice communication and tele-protection.
- 2.3.37 Data Acquisition System and communication infrastructure to transfer real time data to SLDC / RLDC.

Note: Next Generation Firewall (NGFW) shall be provided as per specifications mentioned in "Firewall Specifications for ISTS stations" at CTU website.

Scope of Electrical Supply and Services:

Basic Engineering Design Parameter of EHV Transmission System

- 2.3.38 **Design Philosophy:** Bidder is free to propose his design for Transmission System or can get the work executed through PGCIL or similar Govt. / PSU Specialist company in Transmission System Domain
- 2.3.39 **Metering:** Complete metering scheme conforming to CTU standards and requirements are to be installed at ISTS substation end. Necessary AMR connection (if applicable) also shall be configured for meter data integration with CTU/SLDC system.
- 2.3.40 If multiple bidders/projects are using a common transmission system, the losses in the common transmission system up to the injection point shall be apportioned to the individual projects for the purpose of billing. In such cases, ABT compliant sub-meters are also to be set up at pooling point for individual projects in addition to the meters at delivery point.
- 2.3.41 For interconnection with grid and metering, the bidder shall abide by the relevant CERC Regulations, Grid Code and Central Electricity Authority Regulations, as amended, and revised from time to time.

Supplies and associated works

- 2.3.42 **Transmission system:** Power Transmission system from Solar plant to interconnecting grid substation including Bay work at ISTS substation complying with relevant CEA standards.

Transmission System

- 2.3.43 Bidder shall develop the interconnecting Transmission Line from the Solar plant End to ISTS Substation as per applicable CEA/CTU standards/regulation. In this regard, Bidder may construct the transmission line through complete deposit basis from PGCIL/State Transco as per relevant standard/guideline/regulation. Bidder also may opt for sharing the required Transmission capacity of already built /under construction Transmission line as per common sharing provision as mentioned elsewhere in the specification.
- 2.3.44 In the above cases, if the Bidder follows CEA standards for construction of transmission lines, it is not mandatory to follow the specifications mentioned in Transmission Line specification in the tender. However, Bidder must submit required drawings / documents to HPGRE for reference purposes.
- 2.3.45 In case the Bidder is constructing transmission lines dedicated to HPGRE's project, it must comply with the specifications.
- 2.3.46 Supply and installation of metering panel along with control cable shall be in bidder's scope. Bidder to refer detailed specification for transmission line provided in the subsequent parts. Installation of OPGW cable, termination in Junction Box at solar plant end gantry, and termination at ISTS end shall be in the scope of Bidder.
- 2.3.47 Bay at ISTS end: The bay construction at ISTS substation is in the scope of the bidder and the total cost including applicable consultancy, supervision charges for the same shall be borne by the Bidder. Bidder shall obtain approval of all the required drawings and type/routine tests of Bay equipment/control equipment from CTU/ISTS owner. The ISTS coordination works, interface systems, software/hardware, data integration, telemetry data, SLDC / CEA / CTU requirements etc as required for completeness of project commissioning are included in Bidder's scope.
- 2.3.48 As per the present connectivity procedure, bay execution work at ISTS substation is carried out by ISTS licensee backed up by connectivity BG's which shall be submitted by HPGRE as per connectivity and GNA regulations. **In case the bay is being developed by licensee under ISTS scope (which CTU shall intimate along with grant of connectivity), the same shall be intimated to the Contractor (for this package) and accordingly**

the ISTS bay amount shall be recovered / adjusted from the Award Price as per the following rate (capital cost):

For each 220 kV bay	INR 3.80 Cr + Applicable GST
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- 2.3.49 Bidder shall use single/double circuit tower for Transmission Line and Multi Circuit tower near 2-3 kms near to ISTS substation and same is to be approved from CTU/ISTS substation Employer (complying with connectivity regulations) as per directions of CTU/ISTS substation employer or any other rules laid by Government in this regard.
- 2.3.50 Design adopted for the transmission tower and its foundation at actual location shall be vetted through authorized independent third party/ CPRI/PGCIL/State Transco. The transmission line and tower design shall comply with latest IS 802-2015
- 2.3.51 In case the total number of Projects/capacities awarded at a particular ISTS substation does not match with the available bay structure, or the awarded Project capacity at one bay results in underutilization of that bay, the contractor shall be required to pool the projects with other SPDs in line with the directions of the CTU for optimum resource utilization and in accordance with the Procedure for Grant of Connectivity at ISTS substations.
- 2.3.52 In case power evacuation through common intermediate pooling sub-station and common transmission line up to interconnecting sub-station is proposed (with other HPGRE projects / external stakeholders), then bidder has to refer to conditions mentioned in Evaluation Criteria regarding the common transmission infrastructure.
- 2.3.53 The O&M agreement for common shared transmission infrastructure shall be executed by bidder/lead generator with HPGRE before release of final payment to the contractor.
- 2.3.54 Bidder must bring out their overall plan for utilization of ultimate/technical connectivity capacity of the transmission system offered by them as a part of the power evacuation scheme (whether dedicated system exclusively for HPGRE or shared transmission system at present/future as the case may be) in the SLD to be submitted along with Annexure 12 during bid submission. In case the dedicated transmission system is utilized as shared transmission system in future, the O&M cost shall be calculated based on proportionate plant capacity of the shared projects with effect from date of sharing. In all cases, the proposed power evacuation arrangement shall meet the applicable connectivity regulatory provisions.

2.10 Scope of Civil Supply and Services

a) Design and construction of permanent facilities

S. No.	Facility / Building	Quantity
•	Site investigation – Topology survey	For entire Capacity in line with Specifications
•	Geotech survey	For Transmission System Only – Foundation Design
•	Any Cutting / Filling with necessary Compaction (~95% of Standard Proctor Density Test) to have Avg. Slope less than 10% (1 in 10). Maximum slope in local zones can be 15%. Land Slope would preferably be in one direction for at least 100mtr. Stretch (approx.)	As per Actual Requirement

S. No.	Facility / Building	Quantity
•	Necessary approach road till plant boundary including any interconnection between plots (if not readily available) by self or through State machinery.	As per Actual
•	Boundary Wall/Chain link fencing with entry-exit Gate(s) and security cabins. No of gates for solar plant boundary – Min 02 Nos for each plot	As per Tender Drawing
•	Detailed survey including route alignment, profiling, tower spotting, tower schedule, layout of crossing locations, optimization of tower locations, check survey	As per system requirement & Tech. Specs. for Transmission Line
•	Fabrication and supply of all type of transmission line towers, Supply of all types of tower accessories, casting of foundations, Testing of towers.	As per system requirement & Tech. Specs. for Transmission Line