	3 x 800 MW PVUNL PATRATU TPP PHASE-I													
								/ GROUND EARTH						
					Enquir	y No P	E/PG/PA1/E-	6865/2021 dated	1 25.01.2022					
							BOQ cum Pr	ice Schedule						
S. No. Item Description QTY FOR LOT 1 QTY FOR QUANTITY (LOT 1 + LOT 2) Units HSN Code				UNIT EX- WORKS PRICE (DULY PACKED) (INR)	TOTAL EX- WORKS PRICE (DULY PACKED) (INR)	FREIGHT % in Terms of Total Ex-Works	Freight Amount (INR)	GST TYPE	GST RATE	GST Amount (INR)	Total F.O.R. Site Price (INR)			
1	40 mm dia. MS ROD	410	410	820	MT	7214								
		Total Pric	e in Figures	(INR)		'								
Total Price in Words (INR)														
NOTE:	OTE:													
1. Ove	Overall tolerance on total dispatched quantity shall be restricted to ± 3% in line with IS 2062.													

PROJECT: 3x800 MW PATRATU PACAKGE: - MS ROD FOR BELOW GROUND EARTHING INSTRUCTIONS TO PACKING LIST

For faster verification of bills, successful bidder to submit detailed Bill of Material (BOM) at the time of drawings/ documents submission after placement of PO. Each item of the BOM to be uniquely identified with item code no. or item SI. No. Supplier to ensure that all items which will find separate mention in the packing list are covered in this detailed BOM.

Supplier to also give the following undertaking in the BOM:

"The BOM provided herewith completes the scope (in content and intent) of material supply under PO No. Dated Any additional material which may become necessary for the intended application of the supplied items/package will be supplied free of cost in most reasonable time.

Packing List must indicate:

- a) Packing size
- b) Gross weight and net weight of each package
- c) Contents of the package with cross reference to BOM item code no. / Sl. No.
- d) Quantity of each items separately.

The packing list must cover all the BOM items.

Supplier to give following undertaking in the packing list:

The Packing list provided herewith is as per BOM approved under PO No. ----

ON COMPANY LETTER HEAD

To,

M/s Bharat Heavy Electricals Ltd., Project Engineering Management, Power Project Engineering Institute, HRD & ESI Complex, Plot No 25, Sector-16 A, Noida-201301

Project: 3X800 MW PVUNL PATRATU TPP PHASE-I

Package: MS ROD FOR BELOW GROUND EARTHING

Reference: Tender Enquiry No: <u>PE/PG/PA1/E-6865/2021</u> Dated: 25.01.2022.

We have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries as per the guidelines dated 23.07.2020 issued by Department of Expenditure (DoE), Ministry of Finance;

We hereby certify that we are not from such a country and we are eligible to be considered.

We further certify that we will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority.

We hereby certify that we shall fulfil all requirements in this regard

Name of Bidding Company/Firm:

Name of Authorised Signatory:

Designation of Authorised Signatory:

Official Seal of the Bidding Company/Firm:

Notes:

- 1. Please note that Owner/ Partner/ CMD/ Director/ Authorized Signatory with proof that he/she is authorized to sign on owner's behalf
- 2. Wherever applicable, evidence of valid registration by the competent authority shall be attached.

Annexure-I

Letter head of Company

Ref	Date
То,	
Bharat Heavy Electricals Limited PEM,	
PPEI Building, Plot No 25, Sector -16A,	
Noida (U.P)-201301	
Subject: -Certification regarding local content	
Reference: Tender Enquiry No-PE/PG/PA1/E-6865/2021	
Name of Package: MS ROD FOR BELOW GROUND EARTHING	
Dear Sir,	
We hereby certify that items offered by us of MS ROD for 3 x 800 MW PVUNL PATRATUMENTS the requirement of minimum local content in line with NIT Cl. No. 3 of NIT No PE/PC date 25.01.2022 and the Public Procurement (Preference to Make in India), Order 2017 date	G/PA1/E-6865/2021
28.05.2018, 29.05.2019 , 04.06.2020 & 16.09.2020.	
Local Content:%	
We further confirms that details of location at which the local value addition is made will be of works at(address of the works)	our registered
Vours	ery truly
tours w	ery truly
(auhorized signate	ory of company)
	(firm name)



Government eProcurement System

Tender Details

Date: 25-Jan-2022 06:13 PM



Basic Details						
Organisation Chain	Bharat Heavy Electricals Limited	PEM - Noida Project Group				
Tender Reference Number	E-6865/21	E-6865/21				
Tender ID	2022_BHEL_7495_1					
Tender Type	Open Tender	Form of contract	Supply			
Tender Category	Goods	No. of Covers	2			
General Technical Evaluation Allowed	No	ItemWise Technical Evaluation Allowed	No			
Payment Mode	Not Applicable	Is Multi Currency Allowed For BOQ	No			
Is Multi Currency Allowed For Fee	No	Allow Two Stage Bidding	No			

Cover Details, No. Of Covers - 2					
Cover No	Cover	Document Type	Description		
1	Techn Commercial Part-1 Bid	.pdf	Part-I Tender documents		
2	Finance - Price Bid - Part-II	.xls	Price Bid		

Tender Fee Details, [Total Fee in ₹ * - 0.00]			EMD Fee Details				
Tender Fee in ₹ Fee Payable To	0.00 Nil	Fee Payable At	Nil	EMD Amount in ₹	0.00	BG/ST or EMD	No
Tender Fee Exemption	No			EMD Fee Type	fixed	Exemption Allowed EMD Percentage	NA
Allowed				EMD Payable To	Nil	EMD Payable At	Nil

Click to view modification history

Work /Item(s)								
Title	MS ROD							
Work Description	MS ROD							
Pre Qualification Details	Please refer	ease refer Tender documents.						
Independent External Monitor/Remarks	NA	VA .						
Show Tender Value in Public Domain	No							
Tender Value in ₹	0.00	Product Category	Machinery and Machining Tools	Sub category	NA			
Contract Type	Tender	Bid Validity(Days)	180	Period Of Work(Days)	120			
Location	PATRATU PROJECT	Pincode	829119	Pre Bid Meeting Place	NA			
Pre Bid Meeting Address	NA	Pre Bid Meeting Date	NA	Bid Opening Place	BHEL PEM NOIDA			
Should Allow NDA Tender	No	Allow Preferential Bidder	No					

Critical Dates			
Publish Date	25-Jan-2022 06:55 PM	Bid Opening Date	04-Feb-2022 03:00 PM
Document Download / Sale Start Date	25-Jan-2022 06:55 PM	Document Download / Sale End Date	04-Feb-2022 02:00 PM
Clarification Start Date	25-Jan-2022 06:55 PM	Clarification End Date	04-Feb-2022 02:00 PM
Bid Submission Start Date	25-Jan-2022 06:55 PM	Bid Submission End Date	04-Feb-2022 02:00 PM

Tender Documents							
NIT Document	S.No Document Name			Description	Document Size (in KB)		
	1	1 Tendernotice_1.pdf		NIT	NIT		
	2	Tendernotice_2.pdf		Tech Specification	162.04		
	3	Tendernotice_3.pdf		Tec PQR		106.48	
	4	Tendernotice_4.pdf		Other Tender Docs		3295.35	
Work Item Documents	S.No	Document Type	Documen	nt Name	Description	Document Size (in KB)	
	1	Additional Documents	Otherdoc.p	odf	OTHER TENDER DOCS	3281.89	
	2	Additional Documents	BOQCumPr	riceSchedule.xls	boq	40.50	
		•					

Bid Openers List				
S.No	Bid Opener Login Id	Bid Opener Name	Certificate Name	
1.	isharawat@bhel.in	ISHA RAWAT	ISHA RAWAT	
2.	amitparihar@bhel.in	Amit Parihar	AMIT PARIHAR	
3.	rajeevsharma@bhel.in	RAJEEV KUMAR	RAJEEV KUMAR	
4.	sarvpreetkaur@bhel.in	SARVPREET KAUR	SARVPREET KAUR	

GeMARPTS Details			
Reason for non availability of GeMARPTS ID	Urgent nature of Procurement		
Remarks	Retneder Case		
Document Name	Gem.pdf		
Document Size (in KB)	85.98		

Tender Properties			
Auto Tendering Process allowed	No	Show Technical bid status	Yes
Show Finance bid status	Yes	Show Bids Details	Yes
BoQ Comparative Chart model	NIL	BoQ Compartive chart decimal places	2
BoQ Comparative Chart Rank Type	NIL	Form Based BoQ	No

Tender Inviting Authority		
Name	KINGSHUK KUMAR DAS	
Address	BHEL - PEM, SEC 16A, FILM CITY, NOIDA	

Tender Creator Details		
Created By	RAEESUL AZAM	
Designation	DY ENGINEER	

Created Date	25-Jan-2022 05:42 PM





PEM / PG-III, BHEL, Noida

SPECIAL CONDITIONS OF CONTRACT (SCC) Rev-0

3 x 800 MW PVUNL PATRATU TPP PHASE-I (Job No. 434)

These Conditions shall be read and construed along with General Conditions of Contract (GCC) rev.06 & GST related Corrigendum to GCC rev.06, to be enclosed along with the tender enquiry. In case of any conflict or inconsistency, the conditions given in SCC shall prevail over the GCC and its corrigendum.

SI No.	Title	Description		
1.	Project Name	3 x 800 MW PVUNL PATRATU TPP PHASE-I (EPC)		
2.	Nature of project & Type of Bidding	Ion-Mega & ICB (International Competitive Bidding)		
3.	Customer Order Ref No	1/PVUNL-CS-9585-001-2/NOA-FC dated 08.03.2018 1/PVUNL-CS-9585-001-2/NOA-SC dated 08.03.2018 1/PVUNL-CS-9585-001-2/NOA-TC dated 08.03.2018		
4.	BHEL's Customer	PATRATU VIDYUT UTPADAN NIGAM LIMITED (subsidiary of NTPC Limited in joint venture with JBVNL)		
5.	PVUNL GST No.	20AAICP3718K1ZH		
6.	Customer Consultants	No consultant		
7.	Consignee Address (Bill To)	For supply package: BHEL, Power Sector-Project Engineering Management, Power Project Engineering Institute, Plot No. 25, Sector-16A, Noida, Uttar Pradesh-201301. GSTIN: 09AAACB4146P2ZC For turnkey packages (where BHEL-PEM will issue only the LOA and Purchase Order shall be issued by BHEL-PSWR):		
8.	Dollivony Address	Construction Manager, BHEL site office, Patratu Vidyut Utpadan Njigam Ltd, PO: PTPS, Patratu, Ramgarh, Jharkhand - 829119 BHEL PSWR GSTIN No 27AAACB4146P1ZF Construction Manager, Bharat Heavy Electricals Limited,		
o.	Delivery Address (Ship To)	Patratu Vidyut Utpadan Njigam Ltd, PO: PTPS , Patratu , Ramgarh ,Jharkhand - 829119		
9.	BHEL Site Office Address	Construction Manager, Bharat Heavy Electricals Limited, Patratu Vidyut Utpadan Njigam Ltd , PO: PTPS , Patratu , Ramgarh, Jharkhand - 829119		
10.	Location of Plant	Site is Located just outside the coal belt of South Karanpura in Ramgarh District of Jharkhand State. The nearest Railway Station is Patratu which is at a distance of about 4 km on Barkakhana-Barwadih Railway line.		
		District: Ramgarh (state- Jharkhand) Next big cities to site: Ranchi Nearest Railway Station: - Patratu Nearest Airport: Ranchi (45 km by road from site)		
11.	Mode of Dispatch	Air, Road, Rail & Sea Transportation		
		For indigenous supplies: By Rail/Road on door delivery and freight pre-paid basis. For imported supplies: On C&F basis. Transit Insurance will be in BHEL scope		
12.	Road Permit /E- waybill	Road Permit / E-way bill, to be arranged by Supplier/ transporter/ BHEL (as per GOI mandate).		
13.	BHEL GSTIN Details	For supply packages: BHEL-PEM is registered in the State of Uttar Pradesh with GSTIN 09AAACB4146P2ZC		

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		For Turnkey packages: BHEL PSWR GSTIN No 27AAACB4146P1ZF		
14.	Transit Insurance	In BHEL Scope.		
		For each dispatch, vendor shall inform the following to the Underwriter under intimation to BHEL-PEM and BHEL Site office:		
		(i) Policy No. (ii) Consignee Name.		
		(iii) Consignment Details (items with their weights and value (in INR).		
		(iv) Project Name and P.O. No.(v) LR No. and date, Dispatch origin and destination details, Invoice No.		
		Vendors to intimate the underwriters quoting the insurance Policy No. as mentioned in Purchase Order.		
15.	Dispatch	Yes in writing, Not less than 30 (Thirty) days prior to date of shipment and dispatch details to		
	intimation	be sent to: BHEL Site office (As mentioned in SI. No. 9) BHEL PEM Noida (As mentioned in NIT)		
		At the point of dispatch, vendor must furnish docs required as given below through Email / Fax		
		i. Vendor's invoice		
		ii. LR / RR / GR / Courier Receipt iii. Packing List/ Challan indicating the items dispatched (with their weights)		
		 iv. Insurance intimation letter informing the underwriters about the dispatches v. MDCC (of BHEL / NTPC) as applicable 		
		vi. Photograph of packing / boxes showing dispatch marking as per Sl. No. 26		
16.	Document	For materials originating from Indian territory		
required for Vendor's payment.	Vendor's	For claiming the payment against dispatch, MRC & Freight, documents as mentioned in GCC rev 06 & its corrigendum shall be submitted by vendor to BHEL. Original money receipt must be submitted for Freight payment.		
		Packing List must comply to Clause No. 19.3 of General Commercial Terms & Conditions of GCC rev.06. Description of items in packing list shall be as per PO such that proper correlation between PO & packing list must be furnished.		
		Soft copy of documents for claiming payment shall be submitted by vendor as advance copy.		
		For materials originating from non-Indian Territory		
		Three (3) original and Three (3) copies of clean bill of lading or One (1) clean original Airway Bill & Three (3) copies, in case of air freight.		
		One (1) original and Three (3) copies of signed Invoices		
		One (1) original and Three (3) copies of Packing List (clearly showing number of packages, gross weight and net weight).		
		Three (3) copies of certificate of country of origin.		
		Copy of MDCC from BHEL / NTPC (as applicable)		
		Three (3) copies of inspection certificate, if any, issued by the customer/his authorized representative.		
		Three (3) of certificate from the vendor to the effect that drawings and catalogues for customs clearance purpose have been kept with the packages for shipment.		
		Three (3) copies of certificate from the vendor to the effect that the contents in each case are not less than that entered in the invoices and guaranteed as new and as per the relevant technical specifications.		
		Shipping Specification – One (1) copy.		
		Quality Certificate – One (1) copy.		
		Approved Test Certificates, if any Three (3) copies.		
		Guarantee Certificate – One (1) Original + One (1) copy.		

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		Inspection Reports – One (1) Original + One (1) copy. PVC Calculation and copy of all applicable indices, if PVC applicable. – Two (2) copies.	
17.	Material Receipt Certificate (MRC)	 A) For supply packages- BHEL-PEM will arrange MRC from BHEL site B) For Turnkey (Supply + Erection & Commissioning) – Original MRC duly signed by customer (PVUNL) & BHEL site is to be arranged by Vendor. 	
18.	Buyer and Paying Authority	For packages where PEM will issue the Purchase Order: BHEL PEM will be the paying authori For packages where BHEL-PEM will issue only the LOA and Purchase Order shall be issued BHEL-PSWR: BHEL Patratu Site will be the paying Authority.	
19.	Demurrage charges	Demurrage charges shall be paid by supplier/ vendor only to the transporter. No claim shall be acceptable to BHEL in this regard.	
20.	Unloading, Storage & Movement of material at site	a) By BHEL site office for supply packages. b) By vendors for Turnkey i.e. Supply and E&C packages	
21.	Concessional custom duty against Essentiality certificate (EC)	The project has been qualified through Project Import route. Accordingly, the benefits applicable to PI project would be granted for this project In this regard applicable documents such as Essentiality certificate will be issued by NTPC (ultimate customer). Under this, Concessional rate of Customs Duty shall be applicable on the Import Contents of the supplier respectively. Based on the above EC, Customs Duty Benefits will be passed on to the vendor. The Bidder to indicate Import contents i.e. list of the item, Currency of Import and Country of Import including CIF value in their offers. BHEL shall inform, the availability of CIF value for a particular package, if any, at the time of NIT. The benefits availed in Concessional Customs Duty must be passed of to BHEL in their offer. Vendor shall inform BHEL and provide the necessary documents to obtain required certificates from BHEL to avail exemption. Obtaining custom duty benefit in line with the Essentiality Certificate issued shall be in vendor's scope.	
22.	Taxes & Duties (For Domestic Vendor)	As per General Conditions of Contract (GCC rev 06) & GST related Corrigendum to GCC rev.06	
23. a	Taxes & Duties (For Order Directly to Foreign Bidders)- supply packages	In case of foreign vendors, quoted prices & Dispatches shall be on C & F (Port-Chennai) basis and the Taxes & duties in the country of dispatch shall be borne by Foreign vendor.	
23. b	Taxes & Duties (For Order Directly to Foreign Bidders)- Turnkey packages	Complete responsibility of import including (but not limited to) import clearance, all taxes and duties in the country of export (origin), all taxes and duties in India shall be to vendor's account.	
24.	Inspection Agency	BHEL/ BHEL approved 3rd party inspection agencies and/or NTPC/ Customer Agency a applicable.	
25.	Inspection procedure for Domestic supplies	For <u>Domestic supplies</u> Vendor shall raise inspection call at least 15 business days in advance on BHEL CQS website to applicable inspection agency (as mentioned in PO/LOI or to be informed later) and submit copy of inspection call to BHEL-PEM for arranging NTPC inspection/Joint inspection on the proposed date, as applicable. MDCC shall be issued on the basis of clear inspection report (CQIR).	
		For Foreign supplies In case of Foreign supplies, if NTPC approved 3rd party inspection agency does not participate in the inspection, test certificates & inspection reports duly accepted by the agreed Inspection agency shall be submitted in soft copy to BHEL-PEM. The same shall be reviewed by PEM and then, sent to NTPC for clearance. The dispatch clearance (MDCC) by NTPC/ BHEL as applicable shall be given to the foreign supplier or representative in India after acceptance of above test certificates.	



26.	Packing, Identification & marking [if not specified in NIT]	Each box shall be marked with Capital Letters in "Red" indicating the PEM SUPPLY (Main Supply/ Commissioning Spares/ Mandatory Spares) for 3 x 800 MW PVUNL PATRATU TPP. NOTE: Main supply item and items for commissioning spares must be packed separately. Each package delivered under the Contract shall be marked by supplier and such marking must be distinct and in English language (all previous irrelevant markings being carefully obliterated). Such marking shall show the description and quantity of contents, the name and address of consignee, the Gross weight and Net weight of the package, the name of the Supplier, PEM P.O. reference number, with a distinctive number of mark sufficient for purposes of identification. Besides above necessary, packing shall bear a special marking 'TOP', 'BOTTOM', 'DO NOT TURN OVER", "KEEP DRY", "HANDLE WITH CARE", etc IMPORTANT: - • Two copies of respective standard manufacturer's erection instruction/operation instruction manual shall be kept in each package / container for immediate reference by BHEL site and same shall be reflected in packing slip also • The Packing list details for the consignment must be put inside the Box/Boxes. Items like pumps, Valves, Hoists, Cranes etc shall essentially have O&M Manuals and E&C guidelines duly enclosed in the packing box. Certificate to such effect shall also be reflected in packing slip. Mandatory spares shall be properly packed separately in separate box painted in Red, indicating Mandatory Spares in bold letters and each spare shall be properly tagged giving details i.e. item number of the equipment in line with the CUSTOMER approved By for Mandatory spares & Number per item (to match the description given in the packing slip) to facilitate their proper identification by PVUNL/ NTPC. One Copy of Packing list must be put inside the Box along with
27.	Submission of Final Drgs/Docs alongwith O&M Manual, Type Test Certificates (if any)	Manufacturing drawing no. reference, Catalogue reference etc. As per GCC rev.06/ Technical Specification/Kick-off meeting.

	Prepared by	Checked by	Reviewed by	✓ Vetted by	Approved by
Name	Grawar Grang		Galuaring		16105
Designation	Sr. Engr/ PG III	DGM/ PG III	DGM/JPG NI	Finance	AGM & DH/ PG III
Signature	Granan & 5/18			1	DEEPAK GUPTA

Technical PQR



3X800 MW PATRATU STPP

PRE-QUALIFICATION REQUIRMENTS FOR MS ROD

PQR No.
PE-PQ-434-509-E001
REVISION NO. 0 DATE 20.01.22
SHEET NO. 1 OF 1

SCOPE	:: Supply : YES;
1	Vendor should have in-house manufacturing facility of MS rod / bar greater than 30mm dia (as per IS: 2062 Grade designation E250 quality A or as per ASTM A 510M Grade No. 1010 (SAE No.1010)/1018 (SAE No.1018)/1020 (SAE No.1020) or as per IS 1875 designation 15C8 class 1A.
2	Vendor should be a manufacturer of MS Rod / Bar. In case bidder is not the manufacturer, their offer shall be evaluated as per Note no.1 of PQR.
3	Vendor should have capability of manufacturing MS Rod /Bar of about 500 MT per month.
4	Vendor should have in-house capability to carry out all applicable tests as per relevant standards.
5	Manufactured & supplied at least 740 MT of MS rod in one or more orders and at least 100 MT in a single order.
6	Minimum two (2) nos. purchase orders for MS rod be submitted which should not be more than five (5) years old from the date of techno-commercial bid opening for establishing continuity in business.

NOTES-

- 1. In case Bidder is authorised dealer / authorised Stockist, then credentials of MS Rod / bar manufacturer (OEM) can also be considered for meeting PQR points 1 to 5 except for PQR criteria at sl. No.6 for which bidder's credentials shall be evaluated. Bidder to furnish the authorisation letter letter from the OEM along with the scope matrix (supply, logistics, testing, inspection, etc) along with the offer. For scope matrix technical specification shall be referred to. Bidder to note arrangement of the bidding w.r.t.OEM, once offered to BHEL as part of bidding documents cannot be changed till the completion of execution of the project.
- 2. SAIL/RINL need not furnish documents in support of above PQR criteria.
- 3. Consideration of offer shall be subject to customer's approval of bidders, if applicable.
- 4. Bidder to submit all supporting documents in English. If documents submitted by bidder are in language other than English, a self-attested English translated document should also be submitted.
- 5. Notwithstanding anything stated above, BHEL reserves the right to assess the capabilities and capacity of the bidder to perform the contract, should the circumstances warrant such assessment in the overall interest of BHEL.
- 6. After satisfactory fulfilment of all the above criteria/ requirement, offer shall be considered for further evaluation as per NIT and all the other terms of the tender.

PREPARED BY	CHECKED BY	REVIEWED BY	APPROVED BY
Shueta 20.01.22	HEMA Digitally signed by MEMA ELECTRISTICAL CONTROL OF	PRAVEEN Displady algored by PRAVENDUTIA Dist critic or-PRIVATE INSTITUTE CALLS DUTTA District or-PRIVATE INSTITUTE CALLS DUTTA District or-PRIVATE DUT	Debasisa Rath Digitally signed by Debasisa Rath Dec m-Debasis Rath, ca-bhel, our-pen, email-debasisaighbel,in, cell. Date: 2022.01.20 17:14:01 +0530'
NAME: SHWETA GABA DESIGNATION: DY. MGR	NAME: HEMA KUSHWAHA DESIGNATION: SR. MGR	NAME: PRAVEEN DUTTA DESIGNATION: AGM	NAME: DEBASISA RATH DESIGNATION: DH- ELECTRICAL

3 X 800 MW PATRATU STPS EXPANSION PH-I

TECHNICAL SPECIFICATION FOR MS ROD FOR BELOW GROUND EARTHING

SPECIFICATION NO.: PE-TS-434-509-E004 REVISION: 01



BHARAT HEAVY ELECTRICALS LIMITED POWER SECTOR PROJECT ENGINEERING MANAGEMENT NOIDA – 201301



TECHNICAL SPECIFICATION FOR MS ROD FOR BELOW GROUND EARTHING

SPECIFICATION NO.
PE-TS-434-509-E004

REV NO.: **01** *DATE*: 18.01.22

3X800 MW PATRATU STPS EXPANSION PH-I SHEET : 1 OF 4

STANDARD TECHNICAL REQUIREMENTS



TECHNICAL SPECIFICATION FOR MS ROD FOR BELOW GROUND EARTHING

SPECIFICATION NO.
PE-TS-434-509-E004

REV NO.: **01** *DATE*: 18.01.22

3X800 MW PATRATU STPS EXPANSION PH-I SHEET : 2 OF 4

1.0 INTENT OF THE SPECIFICATION

- 1.1 This specification covers the design, manufacture, inspection & testing, packing at manufacturer's works and delivery to site of **MS ROD FOR BELOW GROUND EARTHING.**
- 1.2 The intent of specification is not to specify all details of design & construction of material. The material shall, however, conform in all aspects to high standard of design, engineering and workmanship and be capable of performing in continuous operation upto & after bidder's guarantee period in manner acceptable to purchaser who will interpret the drawings & specification and shall have power to reject any work or material which in his judgement is not in full accordance with this specification.

2.0 CODES & STANDARDS

- 2.1 The material shall comply with all currently applicable safety codes and statutory regulations of India as well as of the locality where the material is to be installed.
- 2.2 Applicable Standards (Latest amendment to be referred): -
- a) IS 2062, Grade designation E250 quality A: Hot Rolled Low, Medium and High Tensile Structural Steel.
- b) ASTM A 510M Grade No. 1010 (SAE No. 1010) /1018 (SAE No. 1018) /1020 (SAE No.1020): Standard Specification for general requirements of wire rods and coarse round wire, carbon steel.
- c) **IS 1875, Designation 15C8 class 1A:** Carbon Steel Billets, Blooms, Slabs and bars for forging Specification.

3.0 TECHNICAL REQUIREMENTS

- 3.1 Straight lengths of MS rods of standard diameter of **40 mm in minimum length of 9 m** shall be supplied.
- 3.2 All finished MS rods for Below Ground Earthing shall be free from sharp edges, corners, burs & unevenness.
- 3.3 Bidder to supply order quantity indicated in the Technical Specification. Overall tolerance on total dispatched quantity shall be restricted to \pm 3% in line with IS 2062.

4.0 QUALITY / INSPECTION

- 4.1 The supplier shall perform all tests necessary to ensure that the material and workmanship conform to the relevant standards and comply with the requirements of this specification.
- 4.2 The tests shall be in accordance with relevant Indian/American standards. The extent of the tests to be performed by the supplier shall include but not be limited to the following: -
- a) Routine Tests:
- (i)Tests for Chemical Composition
- (ii) Test for Mechanical Properties.

Necessary Test Certificates shall be submitted to BHEL for review before actual dispatch of material.

5.0 PACKING

The material shall be packed to ensure protection against damage during transit, storage for prolonged periods and handling.



TECHNICAL SPECIFICATION FOR MS ROD FOR BELOW GROUND EARTHING

SPECIFICATION NO. PE-TS-434-509-E004

REV NO.: **01** DATE :18.01.2022

3X800 MW PATRATU STPS EXPANSION PH-I SHEET : 3 OF 4

BOQ FOR BELOW GROUND EARTHING (MS ROD)

S.NO.	ITEM DESCRIPTION	UNIT	ORDER QUANTITY
1)	40 mm Dia MS ROD	MT	820



TECHNICAL SPECIFICATION FOR MS ROD FOR BELOW GROUND EARTHING

SPECIFICATION NO. PE-TS-434-509-E004

REV NO.: **01** DATE :18.01.22

3X800 MW PATRATU STPS EXPANSION PH-I SHEET : 4 OF 4

SCOPE matrix for MS ROD

Sr.no	Activities	Manufacturer	Bidder/ Associate	Remarks
1.	Source of Supply	Material is to be dispatched directly from the place of manufacturer (works / storage yard) of MS Rod to the project sites without any transhipment.		Consignors Name & address on dispatch documents shall be of manufacturer from where the material is dispatched.
2.	Testing/Inspect ion			·
3.	Guarantee/War rantee			
4.	Transportation			

Bidder to furnished duly filled in signed & stamped copy of scope matrix for broad activities

ANNEXURE II- DEVIATION SHEET (COST OF WITHDRAWL)- Unpriced

NAME OF PACKAGE: 3 x 800 MW PVUNL PATRATU TPP PHASE-I: MS ROD FOR BELOW GROUND EARTHING			
Refer Enquiry No. PE/PG/PA1/E-6865/2021 dated 25.01.2022			
NAME OF BIDDER:			

SR.NO	Section	Page No.	Clause No.	Technical Specification/ TenderDocument	CompleteDescription of Deviation	Cost of Withdrawal of Deviation	Reference of Price Schedule on Which cost of Withdrawal of deviation is Applicable	Nature of Cost of Withdrawal of deviation (Positive/Negative)	Reason for QuotingDeviation
TECHNICAL DEVIATION:									
COMMERCIAL DEVIATION									
PARTICULARS OF BIDDERS/ AUTHORISED REPRESENTATIVE									
NAME					SIGN & DATE				

NOTES: