BHILAI FGD - RIGID STEEL CONDUIT BOQ

Item Number	Item Title	Item Description	Item Quantity	Unit of Measure	Consignee ID	ZipCode	Delivery Period (In number of days)	Unit Price (Inclusive of TAX)	GST % Applicable	Brand	Model	HSN Code
1	558-15001-A	GI CONDUITS,1.6MM THK EPOXY 20MM DIA	500	MTR	BHILAI_PEM_CON	490021	210					
2	558-15002-A	GI CONDUITS,1.6MM THICK, 20MM DIA	10905	MTR	BHILAI_PEM_CON	490021	210					
3	558-15003-A	GI CONDUITS, 1.6MM THICK, 25MM DIA	1750	MTR	BHILAI_PEM_CON	490021	210					
4	558-15005-A	GI CONDUITS, 2.0MM THICK, 50MM DIA	500	MTR	BHILAI_PEM_CON	490021	210					

2X250 MW NSPCL BHILAI TPP (FGD PKG)

TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPECIFICATION NO.: PE-TS- 468-558-E002

REVISION: 0



BHARAT HEAVY ELECTRICALS LIMITED POWER SECTOR PROJECT ENGINEERING MANAGEMENT NOIDA, UP (INDIA) – 201301



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS- 468-558-E002 VOLUME NO.: II-B

SECTION: I

REV NO.: 00 DATE: 19.08.2021

SHEET : 1 OF 11

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	SECTION I COMPLIANCE CERTIFICATE SPECIFIC TECHNICAL REQUIREMENTS DATASHEET A SECTION II STANDARD TECHNICAL REQUIREMENTS



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS- 468-558-E002
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SECTION: I
DEV NO. 00 DATE, 10.09.2021

SHEET : 2 OF 11

COMPLIANCE CERTIFICATE

The bidder shall confirm compliance to the following by signing/ stamping this compliance certificate and furnishing same with the offer.

- 1. The scope of supply, technical details, construction features, design parameters etc. shall be as per technical specification & there are no exclusion/ deviation with regard to same
- 2. There are no deviation with respect to specification other than those furnished in the 'schedule of deviations'
- 3. Only those technical submittals which are specifically asked for in NIT to be submitted at tender stage shall be considered as part of offer. Any other submission, even if made, shall not be considered as part of offer.
- 4. Any comments/ clarifications on technical/ inspection requirements furnished as part of bidder's covering letter shall not be considered by BHEL, and bidder's offer shall be construed to be in conformance with the specification.
- 5. Any changes made by the bidder in the price schedule with respect to the description/ quantities from those given in BOQ-Cum-Price schedule of the specification shall not be considered (i.e., technical description & quantities as per specification shall prevail).

 BIDDER'S STAMP & SIGNATURE



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

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SECTION - I



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS- 468-558-E002
VOLUME NO.: II-B
SECTION: I
REV NO.: 00 DATE: 19.08.2021

SHEET : 4 OF 11

SPECIFIC TECHNICAL REQUIREMENTS

1.0 SCOPE

- 1.1 Manufacture, Inspection and Testing at Manufacturer's works, proper packing and delivery to site of rigid steel conduits conforming to this specification.
- 1.2 Technical requirements of rigid steel conduits are indicated in Data Sheet-A & Section-II.
- 1.3 The stipulation of Data Sheet-A shall prevail in case of any conflict between the stipulations of Data Sheet-A & Section-II.

2.0 BILL OF QUANTITIES

The bidder to quote for items as per price schedule attached with NIT.

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 item(s)/package will be supplied free of cost in most reasonable time."

3.0 DRAWINGS & DOCUMENTS TO BE SUBMITTED

- 3.1 Bidders shall furnish following documents as the part of their technical offer:
 - a) Complete signed & stamped copy of this specification.
 - b) "Deviation Schedule" with "NO Deviations" and bidder's signature and company stamp.
 - c) Unpriced Price Schedule as enclosed with NIT with 'Quoted' word against items with bidder's signature and company stamp.
- 3.2 Document submission / resubmission schedule after placement of order shall be as per NIT.

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4.0 PACKING

4.1 Packing shall be as per Clause 5 of Section -II.



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DATASHEET-A

I. APPLICABLE STANDARDS & CODES

a) IS:9537 (Part I & II) Conduits for electrical installation.

b) IS:2629 Recommended practice for hot dip galvanizing on iron and steel.

c) IS:4759 Specification for hot dip zinc coatings on structural steel and allied

products

d) IS:6745 Methods for determination of mass of zinc coating on zinc coated

iron and steel articles.

e) IS:513 Cold reduced low carbon steel sheet and strip

f) IS: 10748 Hot rolled Steel strip for welded tubes and pipes

g) IS: 2633 Method for testing uniformity of coating on zinc coated articles

h) IS:6005 Code of practice for phosphating iron & steel

II. RIGID STEEL CONDUITS

S.No.	Description	Unit	Parameters value/ type
а	Make	-	BIS approved
			[] As per enclosed sub-vendor list
b	Material	-	Hot/Cold rolled mild steel
С	Sizes	-	As per BOQ cum price schedule
d	Standard length	meter	3 – 5
е	Classification as per		Heavy
	mechanical properties		
f	Conduit thickness	mm	1.6 upto 25 mm dia,
	(minimum)		2.0 above 25 mm & upto 50 mm dia
g	Surface treatment	-	Hot dip galvanizing on inside & outside
			surface
h	Epoxy thickness	micron	50 (applicable for epoxy coated conduits only)

III. SURFACE TREATMEMT

а	Pre-treatment	-	As per IS 6005 prior to galvanising
b	Туре	-	Hot dip galvanizing as per IS 2629
С	Min. Thickness of zinc coating	microns	48 (upto 25 mm dia), 65 (above 25 mm & upto 50 mm dia)
d	Min. Weight of zinc coating	(gm/m2)	340 (upto 25 mm dia) 460 (above 25 mm & upto 50 mm dia)
е	Tests for galvanizing	_	a) Weight of zinc coating as per IS: 6745 b) Thickness of zinc coating as per IS: 4759 c) Uniformity of zinc coating as per IS: 2633 d) Adhesion as per IS: 2629



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

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SECTION-II



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

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1.0 INTENT OF SPECIFICATION

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 up to & 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 AND 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 The material, construction, manufacture, inspection and testing of Rigid steel conduits shall conform to the latest revision of relevant standards as per Data Sheet-A.
- 2.3 In case of conflict between the applicable reference standard and this specification, the stringent requirement of the two shall govern.

3.0 TECHNICAL REQUIREMENTS

- 3.1 Rigid conduits shall generally conform to the requirements of IS: 9537 (part I & II).
- 3.2 The diameter of conduits shall be uniform throughout the length. Each end of conduit length shall be threaded. The ends of conduits shall be sealed with protective caps to prevent damage to threaded portions and entrance of moisture and foreign material.
- 3.3 The inside surface of all conduits shall be smooth and suitable for pulling insulated cables and wires without damage.
- 3.4 Technical particulars of rigid conduits are specified in Data Sheet A.

4.0 QUALITY ASSURANCE, TESTING & INSPECTION

- 4.1 Bidder shall confirm compliance with the BHEL's Standard Quality Plan (PE-QP-999-558-E001) as attached with the specification without any deviations. At contract stage, the successful bidder shall submit the Quality Plan for BHEL/ ultimate customer's approval. In case bidder has reference Quality Plan agreed with ultimate customer, same can be submitted for specific project after award of contract for BHEL/ ultimate customer's approval. There shall be no commercial implication to BHEL on account of Quality plan approval.
- 4.2 All materials shall be procured, manufactured, inspected and tested by vendor/ sub-vendor as per approved quality plan.
- 4.3 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 the specification. Charges for all these tests for all the equipments & components shall be deemed to be included



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

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in the bid price.

4.4 In case ordered quantities are manufactured and offered for inspection in more than one lot, BHEL reserves the right to witness testing on all lots without any commercial implication to BHEL.

5.0 PACKING

- 5.1 The material shall be packed to ensure protection against damage during transit, storage for prolonged periods and handling.
- 5.2 The ends of conduits shall be sealed with protective caps.
- 5.3 Each conduit shall be wrapped in plastic to prevent dust deposition.
- 5.4 The conduits should be aligned and stacked in bundles (a maximum of 25 pieces per bundle).
- 5.5 Each bundle shall be covered with jute fibre / thick plastic wrap for protection against extreme weather. Then, the bundle shall be tied with twin-strand mild steel wire, strong rope or steel strip.

6.0 MARKING

- 6.1 Rigid conduits shall be marked at least once on each manufacturing length, preferably 50 mm from one end, with the following:
- a) Manufacturer's name or trade mark, if any;
- b) Country of manufacture; and
- c) Nominal size of the conduits.
- d) ISI Certification Mark.

Marking may be applied by moulding, stamping, printing, adhesive label or water slide transfers.

- 6.2 Marking shall be durable and legible.
- 6.3 Marking shall be checked by inspection and by rubbing lightly the marking by hand for 15 seconds with a piece of cloth soaked with water and again for 15 seconds with a piece of cloth soaked with petroleum spirit.

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	2	3	4	3	М	C/ N		°		9	D	М	С	N	
1.0 RAW	/ MATERIAL/BOU	GHT OUT ITEMS													
1.1		HOT ROLLED STEEL STRIP	MA	VISUAL, MECH. & CHEMICAL	MFR. STD.	-	IS10748	IS107	'48	TEST CERT.	V	Р	V	_	AS APPLICABLE
1.2		COLD ROLLED STEEL SHEET	MA	VISUAL, MECH. & CHEMICAL	MFR. STD.	-	IS513	IS51	3	TEST CERT.	V	Р	V	-	AS APPLICABLE
2.0 ACC	EPTANCE TESTS														
2.1		DIMENSIONS	MA	MEASUREM ENT	IS 9537-II	IS 9537-II	IS:9537/ APPROVED DATA SHEET	APPROV DATA SI		INSP. REPORT	1	Р	W	-	
2.2		MECH. PROPERTIES													
2.2A	RIGID STEEL CONDUITS	BENDING TEST	CR	TEST	IS 9537-II	IS 9537-II	IS 9537-II	IS 9537-	ll	INSP. REPORT	V	Р	W	-	
2.2B		COMPRESSION TEST	CR	TEST	IS 9537-II	IS 9537-II	IS 9537-II	IS 9537-	l l	INSP. REPORT	V	Р	W	-	
2.3		GALVANISATION TEST													
2.3A		UNIFORMITY OF ZINC COATING	CR	TEST	IS 9537-II	IS 9537-II	IS-2633/ APPD DS	IS-2633/ APPD DS	S	INSP. REPORT	√	Р	W	-	
		BHEL				DIDDED/	SUPPLIER	-		FOR CUST	OMED	DEVII	DXX/ O-	A DDD	OVAL

Sign & Date

Seal

QUALITY

Name

Ricall Sound by RITESH RUMAR JAISWAL DN: c=N, o=Bharat Heavy Electricals Ltd, GLAHE SANN AND Code=201301,

KUNAL GANDHI

Sign & Date

RITESH KUMAR JAISWAL Doc No:

Reviewed

Approved

by:

Sign & Date

Name

Seal

MANUFACTURER/

ENGINEERING

Name

TO THE PROPERTY AND THE PROPERTY OF THE PROPER

MEET SAGAR SINGH RAJPAL/ MUDIT CHOPRA

Reviewed

Sign & Date

Prepared

Reviewed

by:

BIDDER/

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	2	3	4	5	М	C.	/ N	1	0		9	D	М	С	N	
2.3B		MASS OF ZINC COAT.	CR	TEST	IS 9537-II	IS 9	9537-II	IS-6745/ APPD DS	IS-6745/ APPD D		INSP. REPORT	V	Р	w	-	
2.3C		COATING THICKNESS	CR	TEST	IS 9537-II	IS 9)537-II	IS-4759/ APPD DS	IS-4759/ APPD D	S	INSP. REPORT	V	Р	w	-	BY ELCOMETER Refer Note 8
2.3D		EPOXY THICKNESS	MA	VISUAL/PH YSICAL	IS 9537-II	IS 9)537-II	50 MICRONS	50 MICR	ONS	INSP. REPORT	V	Р	w	-	AS APPLICABLE
2.4		MARKING	CR	VISUAL/PH YSICAL	IS 9537-II	IS 9	9537 -II	APPROVED DATA SHEET	APPRO\ DATA SI		INSP. REPORT		Р	W	-	
3.0 PAC	KING															
	PACKING	Soundness of Packing against transit damage	Major	Visual	100%	1	00%	BHEL * approved document	BHEL approved documer		Inspection report	√	Р	w	-	

NOTES:

- 1. The inspection shall be carried out once for the material offered for inspection in one lot. For subsequent lots against the same project, the material can be accepted based on certificate of compliance furnished by the vendor.
- 2. Project specific QP shall be based on customer requirement. In case, any changes in QP commented by customer at contract stage shall be carried out by bidder without any implication to BHEL/ Customer.
- 3. For export jobs, BHEL technical specification for seaworthy packing for export jobs is to be followed.
- 4. Packing shall be suitable for storage at site in tropical climatic conditions. *Packing shall be done as per Clause 5 of Section -II of Technical specification.

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- 5. Latest revision/ year of issue of all the standards (IS/ ASME/ IEC etc.) Indicated in QP shall be referred.
- 6. BHEL reserves the right for conducting repeat test if required.
- 7. After packing and prior to issue MDCC, photographs of items to be dispatched shall be sent to BHEL purchase group for review.

Sign & Date Seal

8. Thickness of zinc coating shall be the average of the determination made at each end and the middle of the article.

LEGENDS:

*RECORDS, INDENTIFIED WITH "TICK"(\(d\)) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION,

** M: SUPPLIER/ MANUFACTURER/ SUB-SUPPLIER, C: MAIN SUPPLIER/ BHEL/ THIRD PARTY INSPECTION AGENCY, N: CUSTOMER,

P: PERFORM, W: WITNESS, V: VERIFICATION, AS APPROPRIATE

MA: MAJOR, MI: MINOR, CR: CRITICAL, D: DOCUMENTATION

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BIDDER/ SUPPLIER		FOR CUSTOMER REVIEW & APPROVAL							
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	Approved by:								



PRE-QUALIFICATION REQUIRMENTS FOR RIGID STEEL CONDUITS

PE-PQ-999-558-E002

REVISION NO. 01 DATE 20/03/2017

SHEET NO. 1 OF 1

ITEMS	: RIGID STEEL CONDUITS							
SCOPE	SCOPE: Supply: YES; Erection & Commissioning: NO.							
1.0	Vendor should be a BIS approved manufacturer of rigid steel conduits as per IS 9537 Part II.							
2.0	Availability of test reports of rigid steel conduits to establish in- house capability at manufacturer's works to carry out all routine, type & acceptance tests as per relevant IS.							
3.0	Capacity of manufacturing 30 MT of rigid steel conduits per month.							
4.0	Manufactured and supplied at least 80 km of rigid steel conduits in one or more orders.							
5.0	Minimum two (2) nos. purchase orders for rigid steel conduits shall be submitted which should not be more than five (5) years old from the date of application for registration or date of technocommercial bid opening (as applicable) for establishing continuity in business.							

NOTE:

- 1. The vendor can offer rigid steel conduits of any BIS approved make meeting criteria S.No.1 to 4 above. The vendor to furnish the following documents:
- a) Undertaking from BIS approved manufacturer of offered make to get the inspection & testing of conduits carried out at manufacturer's works.
- b) Credentials of the manufacturer of offered make to meet the PQR requirements of S no 1.0 to 4.0 above.
- c) Vendor's Credentials to meet S no 5.0.
- 2. Consideration of offer shall be subject to customer's approval of bidders, if applicable.
- 3. 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.
- 4. Any other project specific requirement shall be as per Annexure-I and bidder shall submit relevant supporting documents.
- 5. Notwithstanding anything stated above, BHEL reserves the right to assess the capabilities and capacity of the bidder/collaborators to perform the contract, should the circumstances warrant such assessment in the overall interest of BHEL.
- 6. After satisfactory fulfillment of all the above criterial requirement, offer shall be considered for further cvaluation as per NIT and all the other terms of the tender.

PREPARED BY

Name: 20 03 13 20 03 13 NAME: DESIGNATION: REVIEWED BY

NAME: 20 03 13 NAME: DESIGNATION: Reena (Cestion)

NAME: DESIGNATION: DESIGNATION: Meena (Cestion)

ANNEXURE FOR RISK & COST

1. In case of delays (beyon d the maximu m late delive ry period as per LD cl ause) in supplie s, or if there be defective su pplies or no n-fulfilment of any other terms and conditions of the Co ntract as en umerated subsequently in this clause, then, without prejudice to its right to recover any expenses, losses or damages to which the B uyer may be put to in cur or sustain by reason of the Seller/Contractor's default or b reach of Order/Contract or to suspend business dealings with the Seller/Contractor in terms of the Buyers' Guidelines for Suspension of Business Dealings as applicable from time to time, the Buyer shall also be entitled to cancel the Order/ Contract either in whole or portion thereof without compensation to Seller. On the occurrence of any of the acts/omission's mentioned below, the Buyer may if it so desi res, procure upon such terms and in such manner as deemed appropriate, plant/equipment/ stores not so delivered or others of similar description where plant/ equipment/ stores exactly complying with particulars are not, in the opinion of the Buyer (which shall be final), readily procurable, at the risk and cost of the Seller.

The Seller shall be liable to the Buyer for any excess costs incurred thereof and the Seller shall continue the performance of the Order/Contract to the extent not cancelled under the provisions of this clause. The Seller shall on no account be entitled to any gain on such repurchases. If the Bidder does not agree to this Risk Purchase clause, BHEL reserves the right to reject the bid/offer of the Bidder. The order/contract may be cancelled in whole or part thereof and Risk & Cost Clause in line with terms and conditions of PO/Contract may be invoked by the Buyer in any of the following cases:

- i. If the Seller/Contractor fails to deliver the good s or materials or any instalment thereof within the period(s) fixed for such delivery or the Seller's poor progress of the supply/services vis-à-vis delivery/execution timeline as stipulated in the contract, backlog attributable to the Seller including unexecuted portion of supply does not appear to be executable within balance period available;
- ii. delivers g oods or mat erials not of the cont racted quality and failing to adhe re to the contract specifications/execution methodology;
- iii. withdrawal from or repudiation/abandonment of the supply/services by the Seller before completion as per contract or if the Seller refuses or is unable to supply goods or materials covered by the order/Contract either in whole or in part or otherwise fails to perform the Order/Contract.
- iv. Non supply by the Seller within scheduled completion/delivery period as per contract or as extended from time to time for reasons attributable to the Seller;
- v. Termination of Contract on account of any other reason(s) attributable to the Seller.
- vi. Assignment, transfer, sub-letting of Contract with out BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
- vii. If the Seller be an individual or a Sole Proprietorship, in the event of death or insanity of the Seller.
- viii. If the Seller/Contractor being an individual or if a partnership firm thereof, shall at any time be a djudged insolvent or shall have a receivin g order for administration of his estate made against him or shall take a ny proceeding for composition under any Insolvency Act for the time being in force or make any assignment of the order/Contract or enter into any arrangement or composition with his creditors or suspend payment or if the firm dissolved under the Partnership Act;
- ix. If the Seller/Co ntractor being a Company is wound up voluntarily or by order of a Court or a Receiver, Liquidator or Manager on behalf of the debenture holders and creditors is appointed or circumstances have arisen which entitles the Court of debenture holder and creditors to appoint a receiver, liquidator or manager
- x. Non- Compliance to any contractual condition or any other default attributable to the Seller.

Such defaulting vendor/Seller shall not be eligible to participate in re-tendering conducted on account of risk purchase made due to fault of such vendor/Seller.

- 2. BHEL's right to go for Risk and Cost, Calcul ation of Risk and Cost amount & L D, recovery options to BHEL are given as under: -
 - 2.1 BHEL reserves the right to terminate the contract or withdraw portion of work and get it do ne through other agency, at the risk and cost of the contractor after due notice of a period of 14 days' by BHEL in any of the following cases:
 - i) If the Sell er/Contractor fails to deliver the go ods or materials or any in stalment there of within the period(s) fixe d for such d elivery or the Seller's poor p rogress of the su pply/services v is-a-vis delivery/execution timeline as stipulated in the Contract, backlog attributable to sell er including unexecuted portion of supply does not appear to be executable within balance available period;
 - ii) Delivers g oods o r mat erials not of the contracted quality and failing to adhe re to the contract specifications;
 - iii) Withdrawal from or repudiation/ abandonment of the supply/ services by Seller before completion as per contract or if the Seller refu ses or is unable to supply go ods or materials covered by the Order/Contract either in whole or in part or otherwise fails to perform the Order/Contract;
 - iv) Non-supply by the Seller within scheduled completion/delivery period as per Contract or as extended from time to time, for the reasons attributable to the Seller;
 - v) Termination of Contract on account of any other reason (s) attributable to Seller.
 - vi) Assignment, transfer, subletting of Contract without BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
 - vii) If the Seller be an individual or a sole proprietorship Firm, in the event of the death or insanity of the Seller;
 - viii) If the Seller/Contractor being an individual or if a firm on a partnership thereof, shall at any time, be adjudged insolvent or shall have a receiving order for administration of his estate made against him or shall take any proceeding for composition under any Insolvency Act for the time being in force or make any assignment of the Order/Contract or enter into any arrangement or composition with his creditors or suspend payment or if the firm dissolved under the Partnership Act;
 - ix) If the Seller/Contractor being a company is wound up voluntarily or by order of a Court or a Receiver, Liquidator or Manager on behalf of the debenture holders and creditors is appointed or circumstances shall have ari sen which entitles the Court of debenture holder and creditors to appoint a receiver, liquidator or manager;
 - x) Non-compliance to any contractual condition or any other default attributable to Seller.

2.1.1 Risk & Cost Amount against Balance Work:

Risk & Cost amount against balance work shall be calculated as follows:

Risk & Cost Amount= $[(A-B) + (A \times H/100)]$

Where,

A= Value of Balance scope of Work (*) as per rates of new contract

B= Value of Balance scope of Work (*) as per rates of old contract being paid to the contractor at the time of termination of contract i.e. inclusive of PVC & ORC, if any.

H = Overhead Factor to be taken as 5

In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero).

2.1.2 Balance scope of work (in case of termination of contract):

Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work for calculating risk & cost amount.

Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities.

Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities a sper issued drawings would be deemed to be contract quantities.

Substitute/ extra items whose rates have already been approved would form part of contract quantities for this purpose.

Substitute/ extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions.

However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose.

NOTE: In case portion of work is being withdrawn at risk & cost of contractor instead of termination of contract, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work' for calculating Risk & Cost amount.

2.1.3 LD against delay in executed work in case of Termination of Contract:

LD against delay in executed work shall be calculated in line NIT terms & conditions, for the delay attributable to contractor. For limiting the maximum value of LD, contract value shall be taken as Executed Value of work till termination of contract.

Method for calculation of LD against delay in executed work in case of termination of contract" is given below:

- i. Let the time period from scheduled date of start of wo rk till termination of contract excluding the period of Hold (if any) not attributable to contractor = T1
- ii. Let the value of executed work till the time of termination of contract = X
- **iii.** Let the Total Executable Value of work for which inputs/fronts were made available to contractor and were planned for execution till termination of contract = Y
- iv. Delay in executed work attributable to contractor i.e. $T2 = [1-(X/Y)] \times T1$
- v. LD shall be caculated in line with LD cause (clause 16) of the Contract for the delayattributable to contractor taking "X" as Contract Value and "T2" as period of delay attributable to contractor.

2.2 Recoveries arising out of Risk & Cost and LD or any other recoveries due from Contractor:

Without prejudice to the other means of recovery of such dues from the Seller recoveries from the Seller on whom risk

& cost has been invoked shall be made from the following:

- a) Dues available in the form of Bills payable to seller, SD, BGs against the same contract.
- b) Dues payable to seller against other contracts in the same Region/Unit/ Division of BHEL.
- c) Dues payable to seller against other contracts in the different Region/Unit/ division of BHEL.

In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against contractor.

Letter head of Company (<Rs. 10 Cr value)

Ref	Date
То,	
Bharat Heavy Electricals Limited PEM,	
PPEI Building, Plot No 25, Sector -16A,	
Noida (U.P)-201301	
Subject: -Certification regard	ding local content
Reference: Tender Enquiry No	
Name of Package:	
Dear Sir,	
We hereby certify that items offered by us of Name/Rate contract) meets the requirement of min NIT No dated and the Public Procuremed dated-15.06.2017, 28.05.2018, 29.05.2019, 04.06.2020 &	nimum local content in line with Cl. No of ent (Preference to Make in India), Order 2017
Local Content%	
We further confirms that details of location at which the lower works at(address	
	Yours very truly
	(authorized signatory of company)
	(firm name)

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

Kind Attn. Mr.
Dear Sir,
This has reference to:
1. Our offer for PVC Wires for Combined Tender Enquiry (2 X 250 MW NSPCL Bhilal TPP-FGD, 2X500 MW NTPC MAUDA FGD STAGE-I, 3X200 + 3X500 MW NTPC RAMAGUNDAM TPP FGD, 3X200+3X500+1x500 MW NTPC KORBA TPP-FGD, 3X660 MW North Karanpura FGD, 3X660 MW NPGCL NABINAGAR FGD and 4X250MW BRBCL Nabinagar FGD projects), GeM Tender No
2. Order no. F. No. 6/18/2019-PPD dt. 23.07.2020 issued by Ministry of Finance, Department of Expenditure Public Procurement Division.
I have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India; I certify that M/s (Company Name) is not from such a country or , if from such a country, has been registered with the competent authority. (Remove the non-applicable)
I hereby certify that M/s (Company Name) fulfil all requirements in this regard and is eligible to be considered.
[where applicable, evidence of valid registration by the competent authority shall be attached]
Thanking You, Yours faithfully,
Owner, partner, CMD, Director, Authorized Signatory with proof that he/she is authorized to sign on owner's behalf
M/s



CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्वासन MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT मुख्य संविदाकार प्रस्ताव सह मुल्यांकन रिपोर्ट

Ref No	o:					Do	ite:				
संदर्भ	सं.:					ति	थिः				
i.	Main	Contractor									
	मुख्य	संविदाकार									
ii.		ct परियोजना									
iii.	Packa	ge Name पैकेज						Package No	पैकेज		
	का ना	म						सं.			
iv.	Propo	sed Item/Scope o	f Sub-con	tracting उप-							
	संविदा	(अनुबंध) का प्रस्ता	वेत मद्र/ व	ायरा							
v.		covered under	Sche	dule-1				er contract cla			
	निम्नर्रि शामिर	तेखित के अंतर्गत न मद	/अनु	सूची- 1			अनुबंध	थ के अनुसार र	वंड सं	-	
			Sche	dule-2 अनुसूची	2						
vi.			•								
	If iten	n is Schedule-1 an	d propose	ed sub-vendor is							
	indige	enous, Main Cont	ractor to e	explain how the							
	contro	actual provisions	will be ful	filled	/यदि						
		नुसूची - 1 है और प्रस्त									
		मुख्य संविदाकार के धान कैसे पूरे किए ज		। हागा कि सापदा/	अनुबध						
vii.		and Address of t		sed Sub-vendor's	works /प्र	स्तावित स	ब-वेंडर	का नाम तथा	पता		
viii.		acement date/ St ान की तिथि / एल- 2							ोओ		
ix.		Description	,,,,,	Total quantity of		Quantity	prop	osed to be	Timelii	ne for	quantity requirements as
		/Size/Rating/Sco	pe of	proposed item				proposed		•	schedule & whether the
		ontracting)	मद	envisaged in the				s/Running			ib-vendor equipped with
		त्ररण (प्रकार / आका प्राचंध का समस्य	र / राटग	package (Nos/ Running Meters				<i>/Tons etc)</i> क्रेता (संख्या /			pacity to supply proposed y in time
	/ उप-उ	मनुबंध का दायरा)		Tons etc) इस पैवे			_	/ किलोग्राम /			, मय सूची के अनुसार मात्रा
				परिकल्पित प्रस्तार्ग				दी जाने वाली			के लिए समय-सीमा और क्या
				की कुल मात्रा (संख	ज्या /	मात्रा ′			प्रस्तावि	त उप-ि	वेक्रेता समय पर प्रस्तावित मांग
				क्रियाशील मीटर /						ा की आ	पूर्ति करने में पूरी तरह से सक्षम
				किलोग्राम / टन अ	ादि)	1			है		
						<u> </u>			<u> </u>		
x.	Suppl	y experience of t	he propo	sed sub-vendor ((including	supplies	to M	ain Contracto	or, if an	y) for	similar item/scope of sub-
	contro	acting, for last 3 y	ears (Not	te:- Only relevant	experien	nce detail:	s w.r.t.	proposed ite	em/scop	e of su	bcontracting to be brought
	out he	ere) पिछले 3 वर्षों	के लिए	उप-अनुबंध के सम	ान मद /	दायरे के ि	लेए प्रस	तावित सब-वे	ंडर (मुख	व्य संवि	दाकार हेतु आपूर्ति, यदि कोई
	हो, सर्	हित) का आपूर्ति अ	नुभव (नो	ट: - उप-अनुबंध वे	के प्रस्तावि	ोत मद / द	ायरे के	संबंध में केवर	न प्रासंगि	क अनु	भव के विवरण का उल्लेख हो



CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्वासन MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT मुख्य संविदाकार प्रस्ताव सह मुल्यांकन रिपोर्ट

	Project/Package परियोजना/पैकेज	Customer Name ग्राहर का नाम	क्र Supplied Item (Type/Rating/Model /Capacity/Size etc आपूर्तित मद (प्रकार/रेटिंग /मॉडल /क्षमता/आकार आदि)	no/date पीओ संदर्भ	Supplied Quantity आपूर्ति की मात्रा	Date of Supply आपूर्ति की तिथि			
supply पास ३	We confirm that as per our assessment, the proposed sub-vendor has requisite capabilities & supply experience and is suitable for supplying the proposed item/scope of sub-contracting/हम अपने आकलन के अनुसार इस बात की पृष्टि करते हैं कि, प्रस्तावित उप-विक्रेता के पास अपेक्षित क्षमता और आपूर्ति करने का अनुभव है और उप-अनुबंध के दायरे /प्रस्तावित मद की आपूर्ति के लिए उपयुक्त है।								
Name नाम:	;	Desig: पद:	Contact No: दूरभाष सं.:	Sign: हस्ताक्षर:		Date: तिथि:			

Company's Seal/Stamp:- कंपनी का मुहर:-



CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्ववासन SUB-VENDOR QUESTIONNAIRE/ **सब-वेंडर प्रश्नावली**

i.	Item/Scope of Sub-contracting	
	उप-संविदा(अनुबंध) का मद/ दायरा	
ii.	Address of the registered office पंजीकृत कार्यालय का पता	Details of Contact Person संपर्क व्यक्ति का विवरण
		(a)
		(Name, Designation, Mobile, Email) (नाम, पदनाम,
		मोबाइल, ईमेल)
iii.	Name and Address of the proposed Sub-vendor's works	Details of Contact Person: संपर्क व्यक्ति का विवरण
	where item is being manufactured प्रस्तावित उप-विक्रेता के	
	कार्यों का नाम और पता, जहां मद का निर्माण किया जा रहा है	(Name, Designation, Mobile, Email) (नाम, पदनाम,
		मोबाइल, ईमेल)
		1
iv.	Annual Production Capacity for proposed item/scope of s	sub-
	contracting उप-संविदा(अनुबंध) के प्रस्तावित मद / दायरे	
	लिए वार्षिक उत्पादन क्षमता	
v.	Annual production for last 3 years for proposed item/sc	оре
	of sub-contracting उप-संविदा(अनुबंध) के प्रस्तावित मद / द	गयरे
	के लिए पिछले 3 वर्षों का वार्षिक उत्पादन	
vi.	Details of proposed works प्रस्तावित कार्यों का	ा विवरण
1.	Year of establishment of present works वर्तमान फैक्टरी की स्थापना का वर्ष	7
<i>1</i> .	स्थापना का वर्ष Year of commencement of manufacturing at above work	
	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष	
	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में	
2.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो))	
2.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में	
2. 3.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो))	
2. 3.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र	
 3. 4. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है
 3. 4. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design)
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, per Main Contractor/purchaser design) Details attached at Annexure – F2.2
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, per Main Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र Design/ Research & development set-up डिजाइन / अनुसं और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उ	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, नकी विवाद क्षिप्त क्षिप्त क्षिप्त क्षिप्त क्षिप्त Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है)
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र Design/ Research & development set-up डिजाइन / अनुसं और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उ	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है।
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उर्थे योग्यता, मशीन और उपलब्ध उपकरण आदि)	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, नकी विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो)
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उत्योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी विवरण अनुलग्नक –एफ 2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो)
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificat machines & tools employed etc.) (श्रमिकों की संख्या, उत्योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details (Design/Manufacturing/Quality etc) मैनपावर विवरण	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी विवरण अनुलग्नक –एफ 2.2 पर संलग्न हीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो) Details attached at Annexure – F2.3 विवरण अनुलग्नक – F2.3 में संलग्न है।
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उत्योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी विवरण अनुलग्नक – एफ 2.2 पर संलग्न हों, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार हैं) विवरण अनुलग्नक – एफ 2.2 पर संलग्न हैं। (यदि लागू हों) Details attached at Annexure – F2.3 विवरण अनुलग्नक – F2.3 में संलग्न हैं।



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0	After	sales service	set up in India, in case of foreigi	n suh-	A	Alakana Kantala arru	/ 			
8.	-		ontact Person, Contact details etc.)	Applicable / Not applicable लागू / लागू नहीं						
		-		Details attached at Annexure — F2.4 विवरण						
	में बिक्री सेवा की स्थापना के बाद, विदेशी उप-विक्रेता के मामले में(स्थल , संपर्क व्यक्ति, संपर्क विवरण आदि)					अनुलग्नक -2.4 पर संलग्न है।				
0		-	,	a la avut						
9.			ocess execution plan with flow stages of manufacturing from			ched at Annexure – F	2.5 ।ववरण			
		_	f product including outsourced product		अनुलग्नक - F2	2.5में संलग्न है।				
		-	विनिर्माण प्रक्रिया निष्पादन योजना ,	-						
	•		यदि कोई हो, सहित कच्चे माल से							
			ा के विभिन्न चरणों को दर्शाया गया हो							
10.			terial/Major Bought Out Item कच्चे ।		Details atta	ched at Annexure – F	:2.6 विवरण			
10.	_	/ खरीदे हुए मुख	,			2.6में संलग्न है।	2.0 ((() (
11.		0,0	rcised during receipt of raw materia	I/BOI.		ched at Annexure – F	:२ ७ विवरण			
11.		-	esting, packing कच्चे माल / खरीदे हु			2.7 पर संलग्न है	2.7 199(9			
			रीक्षण, पैकिंग करते समय गुणवत्ता नि		जगुराक्षमा - ह	2.7 4 < ((() %)				
12.		ıfacturing faci			Details atta	ched at Annexure – F	2.8 विवरण			
	-		ecial process facilities, material handlin	-	अनुलग्नक - F2	2.8में संलग्न है।				
		•	ग्शीनों की सूची ,विशेष प्रक्रिया सुर्ि 	वधाए,						
	सामग्री रख-रखाव आदि) 3. Testing facilities (List of testing equipment)					Details attached at Annexure — F2.9 विवरण				
13.			st of testing equipment) रीक्षण उपकरण की सूची)				2.9 विवरण			
					अनुलग्नक – F2. 9 में संलग्न है।					
14.	-		process involves fabrication then	- याद	Applicable / Not applicable लागू / लागू नहीं					
-			ब्रिकेशन की गई है तो-		Details attached at Annexure – F2.10 विवरण					
-			lders पात्र वेल्डर की सूची		अनुलग्नक - F2.10में संलग्न है।					
			OT personnel with area of speciali	zation	(if applicable) लागू / लागू नहीं					
			हित पात्र एनडीटी कार्मिकों की सूची	. C. I.						
15.			d manufacturing processes with		Applicable / Not applicable लागू / लागू नहीं					
			nddresses सब-वेंडर द्वारा बाह्य स्रोतों	•	5.4.					
	नामः	भार पत साहत)	से करवाएं गए निर्माण प्रक्रियाओं की	सूच।	Details attached at AnnexureF2.11 विवरण					
					अनुलग्नक - F2.10में संलग्न है।					
					(if applicable) (यदि लागू हो)					
16.			list including recent supplies नर्व	नितम	Details attached at Annexure – F2.12					
	आपूरि	र्ते सहित आपूर्ति	सदभ सूची		विवरण अनुलग्नक - F2.12 में संलग्न है। (as per format given below) (नीचे दिए गए प्रारूप के					
					(as per form अनुसार)	at given below) (नाच	त्र । दए गए प्रारूप क			
Project		Customer	Supplied Item (Type/Rating/Model	PO ref	no/date पीओ	Supplied Quantity	Date of Supply			
packag		Name ग्राहक	/Capacity/Size etc) आपूर्ति की गई वस्तु	-	सं. / तिथि	आपूर्ति की मात्रा	आपूर्ति की तारीख			
	(प्रकार / रेटिंग / मॉडल /क्षमता / (प्रकार / रेटिंग / मॉडल /क्षमता /									
/पैकेज			आकार आदि)							
<i>17</i> .	Produ	-		dback	Attached at	annexure - F2.13 अन्	नुलग्नक F2. 3पर			
	letter/certificates/End User Feedback उत्पाद के संतोषजनक					संलग्न है				
	प्रदर्शन	सब्धा फीडबेक	पत्र / प्रमाण पत्र / अंतिम उपयोगकर्ता र्फ़	डिबेक						



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18.	Summary of Type Test Report (Type Test	Details, F	Applicable / Not applicable लागू / लागू नहीं					
	Agency, Date of testing) for the proposed							
	(similar or higher rating) प्रस्तावित उत्पाद (एक समान य	ग उच्च रेटिंग					
	वाले) के लिए टाइप टेस्ट रिपोर्ट (टाइप टेस्ट	विवरण, रि	पोर्ट संख्या,	Details at	ttached	d at Annexure –	F2.14 वि	वरण
	एजेंसी, जांच की तारीख) का सारांश					1में संलग्न है		
	नोट: - रिपोर्ट प्रस्तुत करने की आवश्यकता नहीं	है		_		गिरास्त्र ह गदि लागू हो)		
	Note:- Reports need not to be submitted			(іт аррііса	abie) (*	गाद लागू हा)		
19.	Statutory / mandatory certification for th	ne propose	ed product	Applicable	le / No	t applicable लागू	/ लागु न	नहीं नहीं
	प्रस्तावित उत्पाद के लिए वैधानिक / अनिव	ार्य प्रमाणी	करण				` ` `	
	·			Details at	ttached	d at Annexure –	F2.15	
				(if applica	able) (र	गदि लागू हो)		
20.	Copy of ISO 9001 certificate आईएसओ 900	01 प्रमाण प	गत्र की प्रति	Attached at Annexure – F2.16 अनुलग्नक में संलग्न -				
	(if available(यदि उपलब्ध हो)			F2.1 6 表				
21.	Product technical catalogues for propose	d item (if	available)	Details attached at Annexure – F2.17 विवरण				
	प्रस्तावित मद के लिए उत्पाद तकनीकी कैटल	ॉग (यदि <u>उ</u>	पलब्ध हो)	अनुलग्नक - F2.1 7 में संलग्न है				
Name	2:	Desig:		S	Sign:		Date:	
नाम:		पदः		Į	हस्ता		तिथि:	
				٩	क्षर:			

Company's Seal/Stamp:- कंपनी की मुहर / मोहर: -

BRBCL NABINAGAR FGD - RIGID STEEL CONDUITS BOQ

Item Number	Item Title	Item Description	Item Quantity	Unit of Measure	Consignee ID	ZipCode	Delivery Period (In number of days)	Unit Price (Inclusive of TAX)	GST % Applicable	Brand	Model	HSN Code
1	558-15001-A	GI CONDUITS 1.6MM THK EPOXY 20MM DIA	400	MTR	NABI_250_PEM_CON	824303	210					
2	558-15002-A	GI CONDUITS,1.6MM THICK, 20MM DIA	10500	MTR	NABI_250_PEM_CON	824303	210					
3	558-15003-A	GI CONDUITS,1.6MM THICK, 25MM DIA	500	MTR	NABI_250_PEM_CON	824303	210					
4	558-15004-A	GI CONDUITS,2.0MM THICK, 40MM DIA	200	MTR	NABI_250_PEM_CON	824303	210					
5	558-15005-A	GI CONDUITS,2.0MM THICK, 50MM DIA	150	MTR	NABI_250_PEM_CON	824303	210					

4X250 MW BRBCL NABINAGAR FGD

VOLUME-II

TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPECIFICATION NO: PE-TS-463-558-E002

REVISION: 00



BHARAT HEAVY ELECTRICALS LIMITED POWER SECTOR PROJECT ENGINEERING MANAGEMENT NOIDA, UP (INDIA) – 201301

401139/2021/PS-PEM-EL



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPECIFICATION NO. PE-TS-463-558-E002						
VOLUME II						
SECTION						
REVISION 00	DATE: 04.08.2021					
SHEET 1 OF 1						

CONTENTS

SI. No.	DESCRIPTION	NO. OF SHEETS
1.0	SECTION- I	
	COMPLIANCE CERTIFICATE	01
	SPECIFIC TECHNICAL REQUIREMENTS	01
	DATA SHEET – A	01
2.0	SECTION- II	
	STANDARD TECHNICAL REQUIREMENTS	02
	STANDARD QUALITY PLAN	03
	PACKING SPECIFICATION (ANNEXURE-A)	01

Total nos. of sheets including cover & separator sheets = 13 sheets

401139/2021/PS-PEM-EL



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPECIFICATION NO. PE-TS-463-558-E002		
VOLUME II		
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REVISION 00	DATE:	
SHEET 1 of 1		

COMPLIANCE CERTIFICATE

The bidder shall confirm compliance to the following by signing/ stamping this compliance certificate and furnishing same with the offer.

- 1. The scope of supply, technical details, construction features, design parameters etc. shall be as per technical specification & there are no exclusion/ deviation with regard to same
- 2. There are no deviation with respect to specification other than those furnished in the 'schedule of deviations'
- Only those technical submittals which are specifically asked for in NIT to be submitted at tender stage shall be considered as part of offer. Any other submission, even if made, shall not be considered as part of offer.
- 4. Any comments/ clarifications on technical/ inspection requirements furnished as part of bidder's covering letter shall not be considered by BHEL, and bidder's offer shall be construed to be in conformance with the specification.
- Any changes made by the bidder in the price schedule with respect to the description/ quantities from those
 given in BOQ-Cum-Price schedule of the specification shall not be considered (i.e., technical description &
 quantities as per specification shall prevail).

В	IDDER'	S STAMI	P & SIGN	NATURE	

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TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPECIFICATION NO. PE-TS-463-558-E002	
VOLUME II	
SECTION I	
REVISION 00	DATE:

<u>SECTION – I</u>

401139/2021/PS-PEM-EL



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPECIFICATION NO. PE-TS-475-558-E002		
VOLUME II		
SECTION I		
REVISION 00	DATE: 28.05.2021	
SHEET 1 OF 1		

1.0 SCOPE

- 1.1 Manufacture, Inspection and Testing at Manufacturer's works, proper packing and delivery to site of rigid steel conduits conforming to this specification.
- 1.2 Technical requirements of rigid steel conduits are indicated in Data Sheet-A & Section-II.
- 1.3 The stipulation of Data Sheet-A shall prevail in case of any conflict between the stipulations of Data Sheet-A & Section-II.

2.0 BILL OF QUANTITIES

The bidder to quote for items as per price schedule attached with NIT.

3.0 DRAWINGS & DOCUMENTS TO BE SUBMITTED

- 3.1 Documents shall be submitted after placement of order for BHEL & customer's approval as specified in NIT.
- 3.2 Documents shall be furnished through BHEL's document management system (WRENCH) portal.

401139/2021/PS-PEM-EL



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPECIFICATION NO. PE-TS-463-558-E002		
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DATA SHEET-A

1.0 APPLICABLE STANDARDS & CODES

a) IS:9537 (Part I & II) Conduits for electrical installation.

b) IS:2629 Recommended practice for hot dip galvanizing on iron and steel.

c) IS:4759 Specification for hot dip zinc coatings on structural steel and allied

products

d) IS:6745 Methods for determination of mass of zinc coating on zinc coated

iron and steel articles.

e) IS:513 Cold reduced low carbon steel sheet and strip

f) IS: 10748 Hot rolled Steel strip for welded tubes and pipes

g) IS: 2633 Method for testing uniformity of coating on zinc coated articles

h) IS:6005 Code of practice for phosphating iron & steel

2.0 RIGID STEEL CONDUITS

S.No.	Description	Unit	Parameters value/ type
а	Make	-	[√] BIS approved [] As per enclosed sub-vendor list
b	Material	-	Hot or Cold rolled mild steel
С	Sizes	-	As per BOQ cum price schedule
d	Standard length	meter	3 – 5
е	Classification as per mechanical properties		Heavy
f	Conduit thickness (minimum)	mm	1.6 upto 32 mm dia, 2.0 above 32 mm & upto 50 mm dia
g	Surface treatment	-	Hot dip galvanizing on inside & outside surface
h	Epoxy thickness	micron	50 (applicable for epoxy coated conduits only)

3.0 SURFACE TREATMEMT

а	Pre-treatment	-	As per IS 6005 prior to galvanising
b	Туре	-	Hot dip galvanizing as per IS 2629
С	Min. Thickness of zinc coating	microns	48 (upto 32 mm dia), 65 (above 32 mm & upto 50 mm dia)
d	Min. Weight of zinc coating	(gm/m2)	340 (upto 32 mm dia) 460 (above 32 mm & upto 50 mm dia)
е	Tests for galvanizing		a) Weight of zinc coating as per IS: 6745 b) Thickness of zinc coating as per IS: 4759 c) Uniformity of zinc coating as per IS: 2633 d) Adhesion as per IS: 2629

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TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPECIFICATION NO. PE-TS-475-558-E002	
VOLUME II	
SECTION II	
REVISION 00	DATE:

SECTION-II

401139/2021/PS-PEM-EL



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPECIFICATION NO. PE-TS-463-558-E002		
VOLUME II		
SECTION II		
REVISION 00 DATE: 16.12.2020		
Sheet 1 of 2		

1.0 INTENT OF SPECIFICATION

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 up to & 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 AND 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 The material, construction, manufacture, inspection and testing of Rigid steel conduits shall conform to the latest revision of relevant standards as per Data Sheet-A.
- 2.3 In case of conflict between the applicable reference standard and this specification, the stringent requirement of the two shall govern.

3.0 TECHNICAL REQUIREMENTS

- 3.1 Rigid conduits shall generally conform to the requirements of IS: 9537 (part I & II).
- 3.2 The diameter of conduits shall be uniform throughout the length. Each end of conduit length shall be threaded. The ends of conduits shall be sealed with protective caps to prevent damage to threaded portions and entrance of moisture and foreign material.
- 3.3 The inside surface of all conduits shall be smooth and suitable for pulling insulated cables and wires without damage.
- 3.4 Technical particulars of rigid conduits are specified in Data Sheet A.

4.0 QUALITY ASSURANCE, TESTING & INSPECTION

- 4.1 Bidder shall confirm compliance with the BHEL's Standard Quality Plan (PE-QP-999-558-E001) as attached with the specification without any deviations. At contract stage, the successful bidder shall submit the Quality Plan for BHEL/ ultimate customer's approval. In case bidder has reference Quality Plan agreed with ultimate customer, same can be submitted for specific project after award of contract for BHEL/ ultimate customer's approval. There shall be no commercial implication to BHEL on account of Quality plan approval.
- 4.2 All materials shall be procured, manufactured, inspected and tested by vendor/ sub-vendor as per approved quality plan.
- 4.3 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 the specification. Charges for all these tests for all the equipments & components shall be deemed to be included in the bid price.

401139/2021/PS-PEM-EL



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPECIFICATION NO. PE-TS-463-558-E002		
VOLUME II		
SECTION II		
REVISION 00	DATE: 16.12.2020	
Sheet 2 of 2		

4.4 In case ordered quantities are manufactured and offered for inspection in more than one lot, BHEL reserves the right to witness testing on all lots without any commercial implication to BHEL.

5.0 PACKING

- 5.1 The material shall be packed to ensure protection against damage during transit, storage for prolonged periods and handling.
- 5.2 The ends of conduits shall be sealed with protective caps.
- 5.3 Each conduit shall be wrapped in plastic to prevent dust deposition.
- 5.4 The conduits should be aligned and stacked in bundles (a maximum of 25 pieces per bundle).
- 5.5 Each bundle shall be covered with jute fibre or thick plastic wrap for protection against extreme weather. Then, the bundle shall be tied with twin-strand mild steel wire, strong rope or steel strip.

6.0 MARKING

- 6.1 Rigid conduits shall be marked at least once on each manufacturing length, preferably 50 mm from one end, with the following:
 - a) Manufacturer's name or trade mark, if any;
 - b) Country of manufacture; and
 - c) Nominal size of the conduits.
 - d) ISI Certification Mark.

Marking may be applied by moulding, stamping, printing, adhesive label or water slide transfers.

- 6.2 Marking shall be durable and legible.
- 6.3 Marking shall be checked by inspection and by rubbing lightly the marking by hand for 15 seconds with a piece of cloth soaked with water and again for 15 seconds with a piece of cloth soaked with petroleum spirit.

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	1			PROJECT:				PO NO.:	0.:				DATE:
				ITEM: RIGID STEEL	FEEL CONDUITS		SYSTEM: STATION LIGHTING SYSTEM		SECTION: II				SHEET 1 OF 3
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1.2		COLD ROLLED STEEL SHEET	MA	VISUAL, MECH. & CHEMICAL	MFR. STD.		IS513	IS513	TEST CERT.	>	> 	1	AS APPLICABLE
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2.1		DIMENSIONS	MA	MEASUREM ENT	IS 9537-II	II-289 SI	IS:9537/ APPROVED DATA SHEET	APPROVED DATA SHEET	INSP. REPORT	>		- /	
2.2		MECH. PROPERTIES											
2.2A	RIGID STEEL CONDUITS	BENDING TEST	CR	TEST	IS 9537-II	IS 9537-II	IS 9537-II	IS 9537-II	INSP. REPORT	>		-	
2.2B		COMPRESSION TEST	CR	TEST	IS 9537-II	IS 9537-II	IS 9537-II	II- 2638-II	INSP. REPORT	>	A	-	
2.3		GALVANISATION TEST											
2.3A		UNIFORMITY OF ZINC COATING	CR	TEST	IS 9537-II	IS 9537-II	IS-2633/ APPD DS	IS-2633/ APPD DS	INSP. REPORT	>	А М	-	
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2.3B		MASS OF ZINC COAT.	CR	TEST	IS 9537-II	IS 9537-II	IS-6745/ APPD DS	IS-6745/ APPD DS	INSP. REPORT	>	۵	×		
2.3C		COATING THICKNESS	CR	TEST	IS 9537-II	IS 9537-II	IS-4759/ APPD DS	IS-4759/ APPD DS	INSP. REPORT	>	۵		BY F Refe	BY ELCOMETER Refer Note 8
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3.0 PACKING	SING												•	
	PACKING	Soundness of Packing against transit damage	Major	Visual	100%	100%	BHEL approved document	BHEL approved document	Inspection report	7	۵	>		

- The inspection shall be carried out once for the material offered for inspection in one lot. For subsequent lots against the same project, the material can be accepted based on certificate of compliance furnished by the vendor.

 Project specific QP shall be based on customer requirement. In case, any changes in QP commented by customer at contract stage shall be carried out by bidder
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 - without any implication to BHEL/ Customer. For export jobs, BHEL technical specification for seaworthy packing for export jobs is to be followed. Packing shall be suitable for storage at site in tropical climatic conditions.
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Latest revision/ year of issue of all the standards (IS/ ASME/ IEC etc.) Indicated in QP shall be referred.

BHEL reserves the right for conducting repeat test if required.

After packing and prior to issue MDCC, photographs of items to be dispatched shall be sent to BHEL purchase group for review. Thickness of zinc coating shall be the average of the determination made at each end and the middle of the article.

LEGENDS: *RECORDS, INDENTIFIED WITH "TICK"(√) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION, ** M: SUPPLIER/ MANUFACTURER/ SUB-SUPPLIER, C: MAIN SUPPLIER/ BHEL/ THIRD PARTY INSPECTION AGENCY, N: CUSTOMER, P: PERFORM, W: WITNESS, V: VERIFICATION, AS APPROPRIATE

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ANNEXURE-A PACKING SPECIFICATIONS- RIGID STEEL CONDUITS

PACKING

- 1. The material shall be packed to ensure protection against damage during transit, storage for prolonged periods and handling.
- 2. The ends of conduits shall be sealed with protective caps.
- 3. Each conduit shall be wrapped in plastic to prevent dust deposition.
- 4. The conduits should be aligned and stacked in bundles (a maximum of 25 pieces per bundle).
- 5. Each bundle shall be covered with jute fibre / thick plastic wrap for protection against extreme weather. Then, the bundle shall be tied with twin-strand mild steel wire, strong rope or steel strip.



PRE-QUALIFICATION REQUIRMENTS FOR **RIGID STEEL CONDUITS**

PE-PQ-999-558-E002

REVISION NO. 01 DATE 20/03/2017

SHEET NO. 1 OF 1

ITEMS	: RIGID STEEL CONDUITS
SCOPE	: Supply : YES; Erection & Commissioning : NO.
1.0	Vendor should be a BIS approved manufacturer of rigid steel conduits as per IS 9537 Part II.
2.0	Availability of test reports of rigid steel conduits to establish in- house capability at manufacturer's works to carry out all routine, type & acceptance tests as per relevant IS.
3.0	Capacity of manufacturing 30 MT of rigid steel conduits per month.
4.0	Manufactured and supplied at least 80 km of rigid steel conduits in one or more orders.
5.0	Minimum two (2) nos. purchase orders for rigid steel conduits shall be submitted which should not be more than five (5) years old from the date of application for registration or date of technocommercial bid opening (as applicable) for establishing continuity in business.

NOTE:

- 1. The vendor can offer rigid steel conduits of any BIS approved make meeting criteria S.No.1 to 4 above. The vendor to furnish the following documents:
- a) Undertaking from BIS approved manufacturer of offered make to get the inspection & testing of conduits carried out at manufacturer's works.
- b) Credentials of the manufacturer of offered make to meet the PQR requirements of S no 1.0 to 4.0 above.
- c) Vendor's Credentials to meet S no 5.0.
- 2. Consideration of offer shall be subject to customer's approval of bidders, if applicable.
- 3. 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.
- 4. Any other project specific requirement shall be as per Annexure-I and bidder shall submit relevant supporting documents.
- 5. Notwithstanding anything stated above, BHEL reserves the right to assess the capabilities and capacity of the bidder/collaborators to perform the contract, should the circumstances warrant such assessment in the overall interest of BHEL.
- 6. After satisfactory fulfillment of all the above criterial requirement, offer shall be considered for further evaluation as per NIT and all the other terms of the tender.

PREPARED BY 20.03.17 DESIGNATION:

REVIEWED BY

NAME:

APPROVED BY

BHEL PEM ELECTRICAL PRE-QUALIFYING REQUIREMENTS FOR RIGID STEEL CONDUITS ANNEXURE – I PROJECT SPECIFIC CRITERIA AGAINST ENQUIRY PROJECT: 4X250 MW BRBCL NABINAGAR FGD

-NIL-

Devendra Singh [Dy. Manager]

Kavita Gupta [Manager]

Omkar Kumar [Section Head]

Debasisa Rath [DH-Electrical]

Letter head of Company (<Rs. 10 Cr value)

Ref	Date
То,	
Bharat Heavy Electricals Limited PEM,	
PPEI Building, Plot No 25, Sector -16A,	
Noida (U.P)-201301	
Subject: -Certification regard	ding local content
Reference: Tender Enquiry No	
Name of Package:	
Dear Sir,	
We hereby certify that items offered by us of Name/Rate contract) meets the requirement of min NIT No dated and the Public Procuremed dated-15.06.2017, 28.05.2018, 29.05.2019, 04.06.2020 &	nimum local content in line with Cl. No of ent (Preference to Make in India), Order 2017
Local Content%	
We further confirms that details of location at which the lower works at(address	
	Yours very truly
	(authorized signatory of company)
	(firm name)

ON COMPANY LETTER HEAD

Kind Attn. Mr.

To,

Dear Sir.

This has reference 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

1. Our offer for PVC Wires for Combined Tender Enquiry (2 X 250 MW NSPCL Bhilal TPP-FGD, 2X500 MW NTPC MAUDA FGD STAGE-I, 3X200 + 3X500 MW NTPC RAMAGUNDAM TPP FGD, 3X200+3X500+1x500 MW NTPC KORBA TPP-FGD, 3X660 MW North Karanpura FGD, 3X660 MW NPGCL NABINAGAR FGD and 4X250MW BRBCL Nabinagar FGD projects), GeM Tender No. dated

2. Order no. F. No. 6/18/2019-PPD dt. 23.07.2020 issued by Ministry of Finance, Department of Expenditure Public Procurement Division. I have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India; I certify that M/s (Company Name_____ is not from such a country or, if from such a country, has been registered with the competent authority. (Remove the non-applicable) I hereby certify that M/s (Company Name) fulfil all requirements in this regard and is eligible to be considered. [where applicable, evidence of valid registration by the competent authority shall be attached1 Thanking You, Yours faithfully,

Owner, partner, CMD, Director, Authorized Signatory with proof that he/she is authorized to sign on owner's behalf

M/s _____

ANNEXURE FOR RISK & COST

1. In case of delays (beyon d the maximu m late delive ry period as per LD cl ause) in supplie s, or if there be defective su pplies or no n-fulfilment of any other terms and conditions of the Co ntract as en umerated subsequently in this clause, then, without prejudice to its right to recover any expenses, losses or damages to which the B uyer may be put to in cur or sustain by reason of the Seller/Contractor's default or b reach of Order/Contract or to suspend business dealings with the Seller/Contractor in terms of the Buyers' Guidelines for Suspension of Business Dealings as applicable from time to time, the Buyer shall also be entitled to cancel the Order/ Contract either in whole or portion thereof without compensation to Seller. On the occurrence of any of the acts/omission's mentioned below, the Buyer may if it so desi res, procure upon such terms and in such manner as deemed appropriate, plant/equipment/ stores not so delivered or others of similar description where plant/ equipment/ stores exactly complying with particulars are not, in the opinion of the Buyer (which shall be final), readily procurable, at the risk and cost of the Seller.

The Seller shall be liable to the Buyer for any excess costs incurred thereof and the Seller shall continue the performance of the Order/Contract to the extent not cancelled under the provisions of this clause. The Seller shall on no account be entitled to any gain on such repurchases. If the Bidder does not agree to this Risk Purchase clause, BHEL reserves the right to reject the bid/offer of the Bidder. The order/contract may be cancelled in whole or part thereof and Risk & Cost Clause in line with terms and conditions of PO/Contract may be invoked by the Buyer in any of the following cases:

- i. If the Seller/Contractor fails to deliver the good s or materials or any instalment thereof within the period(s) fixed for such delivery or the Seller's poor progress of the supply/services vis-à-vis delivery/execution timeline as stipulated in the contract, backlog attributable to the Seller including unexecuted portion of supply does not appear to be executable within balance period available;
- ii. delivers g oods or mat erials not of the cont racted quality and failing to adhe re to the contract specifications/execution methodology;
- iii. withdrawal from or repudiation/abandonment of the supply/services by the Seller before completion as per contract or if the Seller refuses or is unable to supply goods or materials covered by the order/Contract either in whole or in part or otherwise fails to perform the Order/Contract.
- iv. Non supply by the Seller within scheduled completion/delivery period as per contract or as extended from time to time for reasons attributable to the Seller;
- v. Termination of Contract on account of any other reason(s) attributable to the Seller.
- vi. Assignment, transfer, sub-letting of Contract with out BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
- vii. If the Seller be an individual or a Sole Proprietorship, in the event of death or insanity of the Seller.
- viii. If the Seller/Contractor being an individual or if a partnership firm thereof, shall at any time be a djudged insolvent or shall have a receivin g order for administration of his estate made against him or shall take a ny proceeding for composition under any Insolvency Act for the time being in force or make any assignment of the order/Contract or enter into any arrangement or composition with his creditors or suspend payment or if the firm dissolved under the Partnership Act;
- ix. If the Seller/Co ntractor being a Company is wound up voluntarily or by order of a Court or a Receiver, Liquidator or Manager on behalf of the debenture holders and creditors is appointed or circumstances have arisen which entitles the Court of debenture holder and creditors to appoint a receiver, liquidator or manager
- x. Non- Compliance to any contractual condition or any other default attributable to the Seller.

Such defaulting vendor/Seller shall not be eligible to participate in re-tendering conducted on account of risk purchase made due to fault of such vendor/Seller.

- 2. BHEL's right to go for Risk and Cost, Calcul ation of Risk and Cost amount & L D, recovery options to BHEL are given as under: -
 - 2.1 BHEL reserves the right to terminate the contract or withdraw portion of work and get it do ne through other agency, at the risk and cost of the contractor after due notice of a period of 14 days' by BHEL in any of the following cases:
 - i) If the Sell er/Contractor fails to deliver the go ods or materials or any in stalment there of within the period(s) fixe d for such d elivery or the Seller's poor p rogress of the su pply/services v is-a-vis delivery/execution timeline as stipulated in the Contract, backlog attributable to sell er including unexecuted portion of supply does not appear to be executable within balance available period;
 - ii) Delivers g oods o r mat erials not of the contracted quality and failing to adhere to the contract specifications;
 - iii) Withdrawal from or repudiation/ abandonment of the supply/ services by Seller before completion as per contract or if the Seller refu ses or is unable to supply go ods or materials covered by the Order/Contract either in whole or in part or otherwise fails to perform the Order/Contract;
 - iv) Non-supply by the Seller within scheduled completion/delivery period as per Contract or as extended from time to time, for the reasons attributable to the Seller;
 - v) Termination of Contract on account of any other reason (s) attributable to Seller.
 - vi) Assignment, transfer, subletting of Contract without BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
 - vii) If the Seller be an individual or a sole proprietorship Firm, in the event of the death or insanity of the Seller;
 - viii) If the Seller/Contractor being an individual or if a firm on a partnership thereof, shall at any time, be adjudged insolvent or shall have a receiving order for administration of his estate made against him or shall take any proceeding for composition under any Insolvency Act for the time being in force or make any assignment of the Order/Contract or enter into any arrangement or composition with his creditors or suspend payment or if the firm dissolved under the Partnership Act;
 - ix) If the Seller/Contractor being a company is wound up voluntarily or by order of a Court or a Receiver, Liquidator or Manager on behalf of the debenture holders and creditors is appointed or circumstances shall have ari sen which entitles the Court of debenture holder and creditors to appoint a receiver, liquidator or manager;
 - x) Non-compliance to any contractual condition or any other default attributable to Seller.

2.1.1 Risk & Cost Amount against Balance Work:

Risk & Cost amount against balance work shall be calculated as follows:

Risk & Cost Amount= $[(A-B) + (A \times H/100)]$

Where,

A= Value of Balance scope of Work (*) as per rates of new contract

B= Value of Balance scope of Work (*) as per rates of old contract being paid to the contractor at the time of termination of contract i.e. inclusive of PVC & ORC, if any.

H = Overhead Factor to be taken as 5

In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero).

2.1.2 Balance scope of work (in case of termination of contract):

Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work for calculating risk & cost amount.

Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities.

Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities a sper issued drawings would be deemed to be contract quantities.

Substitute/ extra items whose rates have already been approved would form part of contract quantities for this purpose.

Substitute/ extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions.

However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose.

NOTE: In case portion of work is being withdrawn at risk & cost of contractor instead of termination of contract, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work' for calculating Risk & Cost amount.

2.1.3 LD against delay in executed work in case of Termination of Contract:

LD against delay in executed work shall be calculated in line NIT terms & conditions, for the delay attributable to contractor. For limiting the maximum value of LD, contract value shall be taken as Executed Value of work till termination of contract.

Method for calculation of LD against delay in executed work in case of termination of contract" is given below:

- i. Let the time period from scheduled date of start of wo rk till termination of contract excluding the period of Hold (if any) not attributable to contractor = T1
- ii. Let the value of executed work till the time of termination of contract = X
- **iii.** Let the Total Executable Value of work for which inputs/fronts were made available to contractor and were planned for execution till termination of contract = Y
- iv. Delay in executed work attributable to contractor i.e. $T2 = [1-(X/Y)] \times T1$
- v. LD shall be caculated in line with LD cause (clause 16) of the Contract for the delayattributable to contractor taking "X" as Contract Value and "T2" as period of delay attributable to contractor.

2.2 Recoveries arising out of Risk & Cost and LD or any other recoveries due from Contractor:

Without prejudice to the other means of recovery of such dues from the Seller recoveries from the Seller on whom risk

& cost has been invoked shall be made from the following:

- a) Dues available in the form of Bills payable to seller, SD, BGs against the same contract.
- b) Dues payable to seller against other contracts in the same Region/Unit/ Division of BHEL.
- c) Dues payable to seller against other contracts in the different Region/Unit/ division of BHEL.

In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against contractor.



CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्वासन MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT मुख्य संविदाकार प्रस्ताव सह मुल्यांकन रिपोर्ट

Ref No	o:					Do	ite:				
संदर्भ	सं.:					ति	थिः				
i.	Main	Contractor									
	मुख्य	संविदाकार									
ii.		ct परियोजना									
iii.	Packa	ge Name पैकेज						Package No	पैकेज		
	का ना	म						सं.			
iv.	Propo	sed Item/Scope o	f Sub-con	tracting उप-							
	संविदा	(अनुबंध) का प्रस्ता	वेत मद्र/ व	ायरा							
v.		covered under	Sche	dule-1				er contract cla			
	निम्नर्रि शामिर	तेखित के अंतर्गत न मद	/अनु	सूची- 1			अनुबंध	थ के अनुसार र	वंड सं	-	
			Sche	dule-2 अनुसूची	2						
vi.			•								
	If iten	n is Schedule-1 an	d propose	ed sub-vendor is							
	indige	enous, Main Cont	ractor to e	explain how the							
	contro	actual provisions	will be ful	filled	/यदि						
	मद अनुसूची -1 है और प्रस्तावित उप-विक्रेता स्वदेशी है, तो मुख्य संविदाकार को स्पष्ट करना होगा कि संविदा/अनुबंध										
vii.		and Address of t		sed Sub-vendor's	works /प्र	स्तावित स	ब-वेंडर	का नाम तथा	पता		
viii.		acement date/ St ान की तिथि / एल- 2							ोओ		
ix.		Description	,,,,,	Total quantity of		Quantity	prop	osed to be	Timelii	ne for	quantity requirements as
		/Size/Rating/Sco	pe of	proposed item				proposed		•	schedule & whether the
		ontracting)	मद	envisaged in the				s/Running			ib-vendor equipped with
		त्ररण (प्रकार / आका प्राचंध का समस्य	र / राटग	package (Nos/ Running Meters				<i>/Tons etc)</i> क्रेता (संख्या /			pacity to supply proposed y in time
	/ उप-उ	मनुबंध का दायरा)		Tons etc) इस पैवे			_	/ किलोग्राम /			, मय सूची के अनुसार मात्रा
				परिकल्पित प्रस्तार्ग				दी जाने वाली			के लिए समय-सीमा और क्या
				की कुल मात्रा (संख	ज्या /	मात्रा ′			प्रस्तावि	त उप-ि	वेक्रेता समय पर प्रस्तावित मांग
				क्रियाशील मीटर /						ा की आ	पूर्ति करने में पूरी तरह से सक्षम
				किलोग्राम / टन अ	ादि)	1			है		
									<u> </u>		
x.	Suppl	y experience of t	he propo	sed sub-vendor ((including	supplies	to M	ain Contracto	or, if an	y) for	similar item/scope of sub-
	contro	acting, for last 3 y	ears (Not	te:- Only relevant	experien	nce detail:	s w.r.t.	proposed ite	em/scop	e of su	bcontracting to be brought
	out he	ere) पिछले 3 वर्षों	के लिए	उप-अनुबंध के सम	ान मद /	दायरे के ि	लेए प्रस	तावित सब-वे	ंडर (मुख	व्य संवि	दाकार हेतु आपूर्ति, यदि कोई
	हो, सर्	हित) का आपूर्ति अ	नुभव (नो	ट: - उप-अनुबंध वे	के प्रस्तावि	ोत मद / द	ायरे के	संबंध में केवर	न प्रासंगि	क अनु	भव के विवरण का उल्लेख हो



CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्वासन MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT मुख्य संविदाकार प्रस्ताव सह मुल्यांकन रिपोर्ट

	Project/Package परियोजना/पैकेज	Customer Name ग्राहक का नाम	Supplied Ite (Type/Rating/Model /Capacity/Size et आपूर्तित मद (प्रकार/रेटि /मॉडल /क्षमता/आकार आदि)	no/date c) पीओ संदर्भ	Supplied Quantity आपूर्ति की मात्रा	Date of Sup आपूर्त्ति की	
supply	ring the proposed item/sco	ppe of sub-contracting/हम	ub-vendor has requisite cap अपने आकलन के अनुसार इ -अनुबंध के दायरे /प्रस्तावितः	प बात की पुष्टि क	रते हैं कि, प्रस्ता	वित उप-विक्रे	-
Name नाम:		Desig: पद:	Contact No: दूरभाष सं.:	Sign: हस्ताक्षर:		Date: तिथि:	

Company's Seal/Stamp:- कंपनी का मुहर:-



CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्ववासन SUB-VENDOR QUESTIONNAIRE/ **सब-वेंडर प्रश्नावली**

i.	Item/Scope of Sub-contracting	
	उप-संविदा(अनुबंध) का मद/ दायरा	
ii.	Address of the registered office पंजीकृत कार्यालय का पता	Details of Contact Person संपर्क व्यक्ति का विवरण
		(a)
		(Name, Designation, Mobile, Email) (नाम, पदनाम,
		मोबाइल, ईमेल)
iii.	Name and Address of the proposed Sub-vendor's works	Details of Contact Person: संपर्क व्यक्ति का विवरण
	where item is being manufactured प्रस्तावित उप-विक्रेता के	
	कार्यों का नाम और पता, जहां मद का निर्माण किया जा रहा है	(Name, Designation, Mobile, Email) (नाम, पदनाम,
		मोबाइल, ईमेल)
		1
iv.	Annual Production Capacity for proposed item/scope of s	sub-
	contracting उप-संविदा(अनुबंध) के प्रस्तावित मद / दायरे	
	लिए वार्षिक उत्पादन क्षमता	
v.	Annual production for last 3 years for proposed item/sc	оре
	of sub-contracting उप-संविदा(अनुबंध) के प्रस्तावित मद / द	गयरे
	के लिए पिछले 3 वर्षों का वार्षिक उत्पादन	
vi.	Details of proposed works प्रस्तावित कार्यों का	ा विवरण
1.	Year of establishment of present works वर्तमान फैक्टरी की स्थापना का वर्ष	7
<i>1</i> .	स्थापना का वर्ष Year of commencement of manufacturing at above work	
	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष	
	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में	
2.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो))	
2.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में	
2. 3.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो))	
2. 3.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र	
 3. 4. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है
 3. 4. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design)
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, per Main Contractor/purchaser design) Details attached at Annexure – F2.2
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, per Main Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र Design/ Research & development set-up डिजाइन / अनुसं और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उ	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, नकी विवाद क्षिप्त क्षिप्त क्षिप्त क्षिप्त क्षिप्त Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है)
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र Design/ Research & development set-up डिजाइन / अनुसं और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उ	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है।
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उर्थे योग्यता, मशीन और उपलब्ध उपकरण आदि)	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, नकी विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो)
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उत्योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी विवरण अनुलग्नक –एफ 2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो)
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificat machines & tools employed etc.) (श्रमिकों की संख्या, उत्योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details (Design/Manufacturing/Quality etc) मैनपावर विवरण	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी विवरण अनुलग्नक –एफ 2.2 पर संलग्न हीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो) Details attached at Annexure – F2.3 विवरण अनुलग्नक – F2.3 में संलग्न है।
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उत्योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी विवरण अनुलग्नक – एफ 2.2 पर संलग्न हों, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक – एफ 2.2 पर संलग्न है। (यदि लागू हो) Details attached at Annexure – F2.3 विवरण अनुलग्नक – F2.3 में संलग्न है।



CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्ववासन SUB-VENDOR QUESTIONNAIRE/ **सब-वेंडर प्रश्नावली**

0	After	sales service	set up in India, in case of foreigi	n suh-	A	Alakana Kantala arru	/ 	
8.	-		ontact Person, Contact details etc.)		Applicable /	Not applicable लागू	/ लागू नहा	
		-	<i>जातिवटा महाउठाा, Contact details etc.,</i> ापना के बाद, विदेशी उप-विक्रेता के		Dotaile atta	ched at Annexure – F	. ४ विवस्मा	
			•	मामल		_	2.4 19959	
0		-	के, संपर्क विवरण आदि)	a la avut		4 पर संलग्न है।		
9.			ocess execution plan with flow stages of manufacturing from			ched at Annexure – F	2.5 ।ववरण	
		_	f product including outsourced product		अनुलग्नक - F2	2.5में संलग्न है।		
		-	विनिर्माण प्रक्रिया निष्पादन योजना ,	-				
	•		यदि कोई हो, सहित कच्चे माल से					
			ा के विभिन्न चरणों को दर्शाया गया हो					
10.			terial/Major Bought Out Item कच्चे ।		Details atta	ched at Annexure – F	:2.6 विवरण	
10.	_	/ खरीदे हुए मुख	,			2.6में संलग्न है।	2.0 ((() (
11.		0,0	rcised during receipt of raw materia	I/BOI.		ched at Annexure – F	:२ ७ विवरण	
11.		-	esting, packing कच्चे माल / खरीदे हु			2.7 पर संलग्न है	2.7 199(9	
			रीक्षण, पैकिंग करते समय गुणवत्ता नि		जगुराक्षण - ह	2.7 4 < ((() %)		
12.		ıfacturing faci			Details atta	ched at Annexure – F	2.8 विवरण	
	-		ecial process facilities, material handlin	-	अनुलग्नक - F2	2.8में संलग्न है।		
		•	ग्शीनों की सूची ,विशेष प्रक्रिया सुर्ि 	वधाए,				
		ो रख-रखाव अ 	,					
13.			st of testing equipment) रीक्षण उपकरण की सूची)			ched at Annexure – F	2.9 विवरण	
						2. 9 में संलग्न है।	. 0.	
14.	-		process involves fabrication then	- याद		Not applicable लागू	• • •	
-			ब्रिकेशन की गई है तो-		1	ched at Annexure – F	2.10 विवरण	
-			lders पात्र वेल्डर की सूची		_	2.10में संलग्न है।		
			OT personnel with area of speciali	zation	(if applicable) लागू / लागू नहीं			
			हित पात्र एनडीटी कार्मिकों की सूची	. C. I.		_	. 0.	
15.			d manufacturing processes with		Applicable /	Not applicable लागू	/ लागू नहा	
			nddresses सब-वेंडर द्वारा बाह्य स्रोतों	•	Details attached at Annexure. –F2.11 विवरण			
	नामः	भार पत साहत)	से करवाएं गए निर्माण प्रक्रियाओं की	सूच।			2.11 ।ववरण	
					_	2.10में संलग्न है।		
					(if applicable) (यदि लागू हो)			
16.			list including recent supplies नर्व	नितम	Details attached at Annexure – F2.12			
	आपूरि	र्ते सहित आपूर्ति	सदभ सूची		_	ाग्नक - F2.12 में संलग्न		
					(as per form अनुसार)	at given below) (नीरे	त्रादए गए प्रारूप क	
Project		Customer	Supplied Item (Type/Rating/Model	PO ref	no/date पीओ	Supplied Quantity	Date of Supply	
packag		Name ग्राहक	/Capacity/Size etc) आपूर्ति की गई वस्तु	-	सं. / तिथि	आपूर्ति की मात्रा	आपूर्ति की तारीख	
परियो /गैकेन	जन⊺	का नाम	(प्रकार / रेटिंग / मॉडल /क्षमता /	,,,,,,,				
/पैकेज			आकार आदि)					
<i>17</i> .	Produ	-		dback	Attached at	annexure - F2.13 अन्	नुलग्नक F2. 3पर	
			End User Feedback उत्पाद के संतो		संलग्न है			
	प्रदर्शन	सब्धा फीडबेक	पत्र / प्रमाण पत्र / अंतिम उपयोगकर्ता र्फ़	डिबेक				



CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्ववासन SUB-VENDOR QUESTIONNAIRE/ **सब-वेंडर प्रश्नावली**

18.	Summary of Type Test Report (Type Test	Details, F	Report No,	Applicable	le / No	t applicable लागू	[/ लागु न	नहीं नहीं
	Agency, Date of testing) for the proposed	d product			•	.,		
	(similar or higher rating) प्रस्तावित उत्पाद (एक समान य	ग उच्च रेटिंग					
	वाले) के लिए टाइप टेस्ट रिपोर्ट (टाइप टेस्ट	विवरण, रि	पोर्ट संख्या,	Details at	ttached	d at Annexure –	F2.14 वि	वरण
	एजेंसी, जांच की तारीख) का सारांश					1में संलग्न है		
	नोट: - रिपोर्ट प्रस्तुत करने की आवश्यकता नहीं	है		_		गिरास्त्र ह गदि लागू हो)		
	Note:- Reports need not to be submitted			(іт аррііса	abie) (*	गाद लागू हा)		
19.	Statutory / mandatory certification for th	ne propose	ed product	Applicable	le / No	t applicable लागू	/ लागु न	नहीं नहीं
	प्रस्तावित उत्पाद के लिए वैधानिक / अनिव	ार्य प्रमाणी	करण				` ` `	
	·			Details at	ttached	d at Annexure –	F2.15	
				(if applica	able) (र	गदि लागू हो)		
20.	Copy of ISO 9001 certificate आईएसओ 900	01 प्रमाण प	गत्र की प्रति	Attached	at Ann	nexure – F2.16 ঔ	नुलग्नक	में संलग्न -
	(if available(यदि उपलब्ध हो)		F2.1 6 है					
21.	Product technical catalogues for propose	d item (if	available)					वरण
	प्रस्तावित मद के लिए उत्पाद तकनीकी कैटल	ॉग (यदि उ	पलब्ध हो)			7 में संलग्न है		
Name	2:	Desig:		S	Sign:		Date:	
नाम:		पदः		Į	हस्ता		तिथि:	
				٩	क्षर:			

Company's Seal/Stamp:- कंपनी की मुहर / मोहर: -

NORTH KARANPURA FGD - RIGID STEEL CONDUITS BOQ

Item Number	Item Title	Item Description	Item Quantity	Unit of Measure	Consignee ID	ZipCode	Delivery Period (In number of days)	Unit Price (Inclusive of TAX)	GST % Applicable	Brand	Model	HSN Code
1	558-15001-A	GI CONDUITS 1.6MM THK EPOXY 20MM DIA	150	MTR	nkp_1666_pem	825321	210					
2	558-15002-A	GI CONDUITS,1.6MM THICK, 20MM DIA	6100	MTR	nkp_1666_pem	825321	210					
3	558-15003-A	GI CONDUITS,1.6MM THICK, 25MM DIA	450	MTR	nkp_1666_pem	825321	210					
4	558-15005-A	GI CONDUITS,2.0MM THICK, 50MM DIA	50	MTR	nkp_1666_pem	825321	210					

402319/2021/PS-PEM-EL



PRE-QUALIFICATION REQUIRMENTS FOR RIGID STEEL CONDUITS

PE-PQ-999-558-E002

REVISION NO. 01 DATE 20/03/2017

SHEET NO. 1 OF 1

ITEMS : RIGID STEEL CONDUITS				
SCOPE: Supply: YES; Erection & Commissioning: NO.				
1.0	Vendor should be a BIS approved manufacturer of rigid steel conduits as per IS 9537 Part II.			
2.0	Availability of test reports of rigid steel conduits to establish in- house capability at manufacturer's works to carry out all routine, type & acceptance tests as per relevant IS.			
3.0	Capacity of manufacturing 30 MT of rigid steel conduits per month.			
4.0	Manufactured and supplied at least 80 km of rigid steel conduits in one or more orders.			
5.0	Minimum two (2) nos. purchase orders for rigid steel conduits shall be submitted which should not be more than five (5) years old from the date of application for registration or date of technocommercial bid opening (as applicable) for establishing continuity in business.			

NOTE:

- 1. The vendor can offer rigid steel conduits of any BIS approved make meeting criteria S.No.1 to 4 above. The vendor to furnish the following documents:
- a) Undertaking from BIS approved manufacturer of offered make to get the inspection & testing of conduits carried out at manufacturer's works.
- b) Credentials of the manufacturer of offered make to meet the PQR requirements of S no 1.0 to 4.0 above.
- c) Vendor's Credentials to meet S no 5.0.
- 2. Consideration of offer shall be subject to customer's approval of bidders, if applicable.
- 3. 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.
- 4. Any other project specific requirement shall be as per Annexure-I and bidder shall submit relevant supporting documents.
- 5. Notwithstanding anything stated above, BHEL reserves the right to assess the capabilities and capacity of the bidder/collaborators to perform the contract, should the circumstances warrant such assessment in the overall interest of BHEL.
- 6. After satisfactory fulfillment of all the above criterial requirement, offer shall be considered for further evaluation as per NIT and all the other terms of the tender.

PREPARED BY

NAME: 10.03.17

DESIGNATION:

REVIEWED BY

NAME: Approved by

NAME: Designation: P. C. 7AL

DESIGNATION: DESIGNATION: P. C. 7AL

DESIGNATION: DESIGNATION: Meena (resmi

BHEL PEM-ELECTRICAL

PRE-QUALIFYING REQUIREMENTS FOR RIGID STEEL CONDUIT

ANNEXURE -I

PROJECT SPECIFIC CRITERIA AGAINST ENQUIRY

PROJECT: 3X660 MW NORTH KARANPURA FGD

NIL

Anil

Rana

Digitally signed by Anil Rana
DN: cn=Anil Rana, o=BHEL,
ou=PS-PEM,
email=anilrana@bhel.in, c=IN
Date: 2021 0.8.02 10:29:20
+05'30'

[Dealing Engineer]

ABHIS
Deptally signed by ABHIS/EX
Detail of Signed by ABHIS/EX
Detail of Signed by ABHIS/EX
Deptally Signed by ABH

[Section Head]

DEBASISA | Digitally signed by DiBLAGA ANTH OF CHILD C

VOLUME-II

3X660 MW NORTH KARANAPURA FGD

FOR RIGID STEEL CONDUITS

SPECIFICATION NO: PE-TS-441-558-E002

REVISION: 00



BHARAT HEAVY ELECTRICALS LIMITED POWER SECTOR PROJECT ENGINEERING MANAGEMENT NOIDA, UP (INDIA) – 201301



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPECIFICATION NO. PE-441-558-E002			
VOLUME II			
SECTION			
REVISION 00	DATE: 02.08.2021		
SHEET 1 OF 1			

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SI. No.	DESCRIPTION	NO. OF SHEETS
1.0	SECTION- I	
	COMPLIANCE CERTIFICATE	01
	SPECIFIC TECHNICAL REQUIREMENTS	01
	DATA SHEET – A	01
2.0	SECTION- II	
	STANDARD TECHNICAL REQUIREMENTS	02
	STANDARD QUALITY PLAN	03

Total nos. of sheets including cover & separator sheets = 12 sheets



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

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COMPLIANCE CERTIFICATE

The bidder shall confirm compliance to the following by signing/ stamping this compliance certificate and furnishing same with the offer.

- 1. The scope of supply, technical details, construction features, design parameters etc. shall be as per technical specification & there are no exclusion/deviation with regard to same
- 2. There are no deviation with respect to specification other than those furnished in the 'schedule of deviations'
- Only those technical submittals which are specifically asked for in NIT to be submitted at tender stage shall be considered as part of offer. Any other submission, even if made, shall not be considered as part of offer.
- 4. Any comments/ clarifications on technical/ inspection requirements furnished as part of bidder's covering letter shall not be considered by BHEL, and bidder's offer shall be construed to be in conformance with the specification.
- 5. Any changes made by the bidder in the price schedule with respect to the description/ quantities from those given in BOQ-Cum-Price schedule of the specification shall not be considered (i.e., technical description & quantities as per specification shall prevail).

BIDDER'S STAMP & SIGNATURE



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

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<u>SECTION - I</u>



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

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SHEET FOF F			

1.0 SCOPE

- 1.1 Manufacture, Inspection and Testing at Manufacturer's works, proper packing and delivery to site of rigid steel conduits conforming to this specification.
- 1.2 Technical requirements of rigid steel conduits are indicated in Data Sheet-A & Section-II.
- 1.3 The stipulation of Data Sheet-A shall prevail in case of any conflict between the stipulations of Data Sheet-A & Section-II.

2.0 BILL OF QUANTITIES

The bidder to quote for items as per price schedule attached with NIT.

3.0 DRAWINGS & DOCUMENTS TO BE SUBMITTED

- 3.1 Documents shall be submitted after placement of order for BHEL & customer's approval as specified in NIT.
- 3.2 Documents shall be furnished through BHEL's document management system (wrench) portal.

Notes:

- 1. Vendor shall submit the drawing/document submission/resubmission schedule after approval of documents.
- 2. In BOM each of the item to be uniquely identified with item code no. or item Sl. No. Supplier to ensure that all the items which will find separate mention in the packing list are covered in detailed BOM.

402319/2021/PS-PEM-EL



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

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DATA SHEET-A

1.0 APPLICABLE STANDARDS & CODES

a) IS:9537 (Part I & II) Conduits for electrical installation.

b) IS:2629 Recommended practice for hot dip galvanizing on iron and steel.

c) IS:4759 Specification for hot dip zinc coatings on structural steel and allied

products

d) IS:6745 Methods for determination of mass of zinc coating on zinc coated

iron and steel articles.

e) IS:513 Cold reduced low carbon steel sheet and strip

f) IS: 10748 Hot rolled Steel strip for welded tubes and pipes

g) IS: 2633 Method for testing uniformity of coating on zinc coated articles

h) IS:6005 Code of practice for phosphating iron & steel

2.0 RIGID STEEL CONDUITS

S.No.	Description	Unit	Parameters value/ type
а	Make	-	[√] BIS approved [] As per enclosed sub-vendor list
b	Material	-	Hot or Cold rolled mild steel
С	Sizes	-	As per BOQ cum price schedule
d	Standard length	meter	3 – 5
е	Classification as per mechanical properties		Heavy
f	Conduit thickness (minimum)	mm	1.6 upto 32 mm dia, 2.0 above 32 mm & upto 50 mm dia
g	Surface treatment	-	Hot dip galvanizing on inside & outside surface
h	Epoxy thickness	micron	50 (applicable for epoxy coated conduits only)

3.0 SURFACE TREATMEMT

а	Pre-treatment	-	As per IS 6005 prior to galvanising
b	Туре	-	Hot dip galvanizing as per IS 2629
С	Min. Thickness of zinc coating	microns	48 (upto 32 mm dia), 65 (above 32 mm & upto 50 mm dia)
d	Min. Weight of zinc coating	(gm/m2)	340 (upto 32 mm dia) 460 (above 32 mm & upto 50 mm dia)
е	Tests for galvanizing		a) Weight of zinc coating as per IS: 6745 b) Thickness of zinc coating as per IS: 4759 c) Uniformity of zinc coating as per IS: 2633 d) Adhesion as per IS: 2629



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

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SECTION-II



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

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Sheet 1 of 2		

1.0 INTENT OF SPECIFICATION

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 up to & 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 AND 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 The material, construction, manufacture, inspection and testing of Rigid steel conduits shall conform to the latest revision of relevant standards as per Data Sheet-A.
- 2.3 In case of conflict between the applicable reference standard and this specification, the stringent requirement of the two shall govern.

3.0 TECHNICAL REQUIREMENTS

- 3.1 Rigid conduits shall generally conform to the requirements of IS: 9537 (part I & II).
- 3.2 The diameter of conduits shall be uniform throughout the length. Each end of conduit length shall be threaded. The ends of conduits shall be sealed with protective caps to prevent damage to threaded portions and entrance of moisture and foreign material.
- 3.3 The inside surface of all conduits shall be smooth and suitable for pulling insulated cables and wires without damage.
- 3.4 Technical particulars of rigid conduits are specified in Data Sheet A.

4.0 QUALITY ASSURANCE, TESTING & INSPECTION

- 4.1 Bidder shall confirm compliance with the BHEL's Standard Quality Plan (PE-QP-999-558-E002) as attached with the specification without any deviations. At contract stage, the successful bidder shall submit the Quality Plan for BHEL/ ultimate customer's approval. In case bidder has reference Quality Plan agreed with ultimate customer, same can be submitted for specific project after award of contract for BHEL/ ultimate customer's approval. There shall be no commercial implication to BHEL on account of Quality plan approval.
- 4.2 All materials shall be procured, manufactured, inspected and tested by vendor/ sub-vendor as per approved quality plan.
- 4.3 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 the specification. Charges for all these tests for all the equipments & components shall be deemed to be included in the bid price.

402319/2021/PS-PEM-EL



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPECIFICATION N	O. PE-TS-441-558-E002
VOLUME II	
SECTION II	
REVISION 00	DATE: 02.08.2021
Sheet 2 of 2	

4.4 In case ordered quantities are manufactured and offered for inspection in more than one lot, BHEL reserves the right to witness testing on all lots without any commercial implication to BHEL.

5.0 PACKING

- 5.1 The material shall be packed to ensure protection against damage during transit, storage for prolonged periods and handling.
- 5.2 The ends of conduits shall be sealed with protective caps.
- 5.3 Each conduit shall be wrapped in plastic to prevent dust deposition.
- 5.4 The conduits should be aligned and stacked in bundles (a maximum of 25 pieces per bundle).
- 5.5 Each bundle shall be covered with jute fibre or thick plastic wrap for protection against extreme weather. Then, the bundle shall be tied with twin-strand mild steel wire, strong rope or steel strip.

6.0 MARKING

- 6.1 Rigid conduits shall be marked at least once on each manufacturing length, preferably 50 mm from one end, with the following:
 - a) Manufacturer's name or trade mark, if any;
 - b) Country of manufacture; and
 - c) Nominal size of the conduits.
 - d) ISI Certification Mark.

Marking may be applied by moulding, stamping, printing, adhesive label or water slide transfers.

- 6.2 Marking shall be durable and legible.
- 6.3 Marking shall be checked by inspection and by rubbing lightly the marking by hand for 15 seconds with a piece of cloth soaked with water and again for 15 seconds with a piece of cloth soaked with petroleum spirit.

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	Soundness of Packing against transit damage	Major	Visual	100%	100%	BHEL approved document	BHEL approved document	Inspection report	<u> </u>	>		

- The inspection shall be carried out once for the material offered for inspection in one lot. For subsequent lots against the same project, the material can be accepted based on certificate of compliance furnished by the vendor.

 Project specific QP shall be based on customer requirement. In case, any changes in QP commented by customer at contract stage shall be carried out by bidder
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 - without any implication to BHEL/ Customer. For export jobs, BHEL technical specification for seaworthy packing for export jobs is to be followed. Packing shall be suitable for storage at site in tropical climatic conditions.
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Latest revision/ year of issue of all the standards (IS/ ASME/ IEC etc.) Indicated in QP shall be referred.

BHEL reserves the right for conducting repeat test if required.

After packing and prior to issue MDCC, photographs of items to be dispatched shall be sent to BHEL purchase group for review. Thickness of zinc coating shall be the average of the determination made at each end and the middle of the article.

LEGENDS:
*RECORDS, INDENTIFIED WITH "TICK"(√) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION,
** M: SUPPLIER/ MANUFACTURER/ SUB-SUPPLIER, C: MAIN SUPPLIER/ BHEL/ THIRD PARTY INSPECTION AGENCY, N: CUSTOMER,
P: PERFORM, W: WITNESS, V: VERIFICATION, AS APPROPRIATE
MA: MAJOR, MI: MINOR, CR: CRITICAL, D: DOCUMENTATION

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Letter head of Company (<Rs. 10 Cr value)

Ref	Date
То,	
Bharat Heavy Electricals Limited PEM,	
PPEI Building, Plot No 25, Sector -16A,	
Noida (U.P)-201301	
Subject: -Certification regard	ding local content
Reference: Tender Enquiry No	
Name of Package:	
Dear Sir,	
We hereby certify that items offered by us of Name/Rate contract) meets the requirement of min NIT No dated and the Public Procuremed dated-15.06.2017, 28.05.2018, 29.05.2019, 04.06.2020 &	nimum local content in line with Cl. No of ent (Preference to Make in India), Order 2017
Local Content%	
We further confirms that details of location at which the lower works at(address	
	Yours very truly
	(authorized signatory of company)
	(firm name)

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

Kind Attn. Mr.
Dear Sir,
This has reference to:
1. Our offer for PVC Wires for Combined Tender Enquiry (2 X 250 MW NSPCL Bhilal TPP-FGD, 2X500 MW NTPC MAUDA FGD STAGE-I, 3X200 + 3X500 MW NTPC RAMAGUNDAM TPP FGD, 3X200+3X500+1x500 MW NTPC KORBA TPP-FGD, 3X660 MW North Karanpura FGD, 3X660 MW NPGCL NABINAGAR FGD and 4X250MW BRBCL Nabinagar FGD projects), GeM Tender No
2. Order no. F. No. 6/18/2019-PPD dt. 23.07.2020 issued by Ministry of Finance, Department of Expenditure Public Procurement Division.
I have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India; I certify that M/s (Company Name) is not from such a country or , if from such a country, has been registered with the competent authority. (Remove the non-applicable)
I hereby certify that M/s (Company Name) fulfil all requirements in this regard and is eligible to be considered.
[where applicable, evidence of valid registration by the competent authority shall be attached]
Thanking You, Yours faithfully,
Owner, partner, CMD, Director, Authorized Signatory with proof that he/she is authorized to sign on owner's behalf
M/s

ANNEXURE FOR RISK & COST

1. In case of delays (beyon d the maximu m late delive ry period as per LD cl ause) in supplie s, or if there be defective su pplies or no n-fulfilment of any other terms and conditions of the Co ntract as en umerated subsequently in this clause, then, without prejudice to its right to recover any expenses, losses or damages to which the B uyer may be put to in cur or sustain by reason of the Seller/Contractor's default or b reach of Order/Contract or to suspend business dealings with the Seller/Contractor in terms of the Buyers' Guidelines for Suspension of Business Dealings as applicable from time to time, the Buyer shall also be entitled to cancel the Order/ Contract either in whole or portion thereof without compensation to Seller. On the occurrence of any of the acts/omission's mentioned below, the Buyer may if it so desi res, procure upon such terms and in such manner as deemed appropriate, plant/equipment/ stores not so delivered or others of similar description where plant/ equipment/ stores exactly complying with particulars are not, in the opinion of the Buyer (which shall be final), readily procurable, at the risk and cost of the Seller.

The Seller shall be liable to the Buyer for any excess costs incurred thereof and the Seller shall continue the performance of the Order/Contract to the extent not cancelled under the provisions of this clause. The Seller shall on no account be entitled to any gain on such repurchases. If the Bidder does not agree to this Risk Purchase clause, BHEL reserves the right to reject the bid/offer of the Bidder. The order/contract may be cancelled in whole or part thereof and Risk & Cost Clause in line with terms and conditions of PO/Contract may be invoked by the Buyer in any of the following cases:

- i. If the Seller/Contractor fails to deliver the good s or materials or any instalment thereof within the period(s) fixed for such delivery or the Seller's poor progress of the supply/services vis-à-vis delivery/execution timeline as stipulated in the contract, backlog attributable to the Seller including unexecuted portion of supply does not appear to be executable within balance period available;
- ii. delivers g oods or mat erials not of the cont racted quality and failing to adhe re to the contract specifications/execution methodology;
- iii. withdrawal from or repudiation/abandonment of the supply/services by the Seller before completion as per contract or if the Seller refuses or is unable to supply goods or materials covered by the order/Contract either in whole or in part or otherwise fails to perform the Order/Contract.
- iv. Non supply by the Seller within scheduled completion/delivery period as per contract or as extended from time to time for reasons attributable to the Seller;
- v. Termination of Contract on account of any other reason(s) attributable to the Seller.
- vi. Assignment, transfer, sub-letting of Contract with out BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
- vii. If the Seller be an individual or a Sole Proprietorship, in the event of death or insanity of the Seller.
- viii. If the Seller/Contractor being an individual or if a partnership firm thereof, shall at any time be a djudged insolvent or shall have a receivin g order for administration of his estate made against him or shall take a ny proceeding for composition under any Insolvency Act for the time being in force or make any assignment of the order/Contract or enter into any arrangement or composition with his creditors or suspend payment or if the firm dissolved under the Partnership Act;
- ix. If the Seller/Co ntractor being a Company is wound up voluntarily or by order of a Court or a Receiver, Liquidator or Manager on behalf of the debenture holders and creditors is appointed or circumstances have arisen which entitles the Court of debenture holder and creditors to appoint a receiver, liquidator or manager
- x. Non- Compliance to any contractual condition or any other default attributable to the Seller.

Such defaulting vendor/Seller shall not be eligible to participate in re-tendering conducted on account of risk purchase made due to fault of such vendor/Seller.

- 2. BHEL's right to go for Risk and Cost, Calcul ation of Risk and Cost amount & L D, recovery options to BHEL are given as under: -
 - 2.1 BHEL reserves the right to terminate the contract or withdraw portion of work and get it do ne through other agency, at the risk and cost of the contractor after due notice of a period of 14 days' by BHEL in any of the following cases:
 - i) If the Sell er/Contractor fails to deliver the go ods or materials or any in stalment there of within the period(s) fixe d for such d elivery or the Seller's poor p rogress of the su pply/services v is-a-vis delivery/execution timeline as stipulated in the Contract, backlog attributable to sell er including unexecuted portion of supply does not appear to be executable within balance available period;
 - ii) Delivers g oods o r mat erials not of the contracted quality and failing to adhere to the contract specifications;
 - iii) Withdrawal from or repudiation/ abandonment of the supply/ services by Seller before completion as per contract or if the Seller refu ses or is unable to supply go ods or materials covered by the Order/Contract either in whole or in part or otherwise fails to perform the Order/Contract;
 - iv) Non-supply by the Seller within scheduled completion/delivery period as per Contract or as extended from time to time, for the reasons attributable to the Seller;
 - v) Termination of Contract on account of any other reason (s) attributable to Seller.
 - vi) Assignment, transfer, subletting of Contract without BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
 - vii) If the Seller be an individual or a sole proprietorship Firm, in the event of the death or insanity of the Seller;
 - viii) If the Seller/Contractor being an individual or if a firm on a partnership thereof, shall at any time, be adjudged insolvent or shall have a receiving order for administration of his estate made against him or shall take any proceeding for composition under any Insolvency Act for the time being in force or make any assignment of the Order/Contract or enter into any arrangement or composition with his creditors or suspend payment or if the firm dissolved under the Partnership Act;
 - ix) If the Seller/Contractor being a company is wound up voluntarily or by order of a Court or a Receiver, Liquidator or Manager on behalf of the debenture holders and creditors is appointed or circumstances shall have ari sen which entitles the Court of debenture holder and creditors to appoint a receiver, liquidator or manager;
 - x) Non-compliance to any contractual condition or any other default attributable to Seller.

2.1.1 Risk & Cost Amount against Balance Work:

Risk & Cost amount against balance work shall be calculated as follows:

Risk & Cost Amount= $[(A-B) + (A \times H/100)]$

Where,

A= Value of Balance scope of Work (*) as per rates of new contract

B= Value of Balance scope of Work (*) as per rates of old contract being paid to the contractor at the time of termination of contract i.e. inclusive of PVC & ORC, if any.

H = Overhead Factor to be taken as 5

In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero).

2.1.2 Balance scope of work (in case of termination of contract):

Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work for calculating risk & cost amount.

Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities.

Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities a sper issued drawings would be deemed to be contract quantities.

Substitute/ extra items whose rates have already been approved would form part of contract quantities for this purpose.

Substitute/ extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions.

However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose.

NOTE: In case portion of work is being withdrawn at risk & cost of contractor instead of termination of contract, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work' for calculating Risk & Cost amount.

2.1.3 LD against delay in executed work in case of Termination of Contract:

LD against delay in executed work shall be calculated in line NIT terms & conditions, for the delay attributable to contractor. For limiting the maximum value of LD, contract value shall be taken as Executed Value of work till termination of contract.

Method for calculation of LD against delay in executed work in case of termination of contract" is given below:

- i. Let the time period from scheduled date of start of wo rk till termination of contract excluding the period of Hold (if any) not attributable to contractor = T1
- ii. Let the value of executed work till the time of termination of contract = X
- **iii.** Let the Total Executable Value of work for which inputs/fronts were made available to contractor and were planned for execution till termination of contract = Y
- iv. Delay in executed work attributable to contractor i.e. $T2 = [1-(X/Y)] \times T1$
- v. LD shall be caculated in line with LD cause (clause 16) of the Contract for the delayattributable to contractor taking "X" as Contract Value and "T2" as period of delay attributable to contractor.

2.2 Recoveries arising out of Risk & Cost and LD or any other recoveries due from Contractor:

Without prejudice to the other means of recovery of such dues from the Seller recoveries from the Seller on whom risk

& cost has been invoked shall be made from the following:

- a) Dues available in the form of Bills payable to seller, SD, BGs against the same contract.
- b) Dues payable to seller against other contracts in the same Region/Unit/ Division of BHEL.
- c) Dues payable to seller against other contracts in the different Region/Unit/ division of BHEL.

In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against contractor.



CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्वासन MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT मुख्य संविदाकार प्रस्ताव सह मुल्यांकन रिपोर्ट

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	मुख्य	संविदाकार									
ii.		ct परियोजना									
iii.	Packa	ge Name पैकेज						Package No	पैकेज		
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iv.	Propo	sed Item/Scope o	f Sub-con	tracting उप-							
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	indige	enous, Main Cont	ractor to e	explain how the							
	contro	actual provisions	will be ful	filled	/यदि						
	मद अनुसूची -1 है और प्रस्तावित उप-विक्रेता स्वदेशी है. तो मख्य संविदाकार को स्पष्ट करना होगा कि संविदा/अनबंध										
	है, तो मुख्य संविदाकार को स्पष्ट करना होगा कि संविदा/अनुबंध के प्रावधान कैसे पुरे किए जाएंगे										
vii.		and Address of t		sed Sub-vendor's	works /प्र	स्तावित स	ब-वेंडर	का नाम तथा	पता		
viii.		acement date/ St ान की तिथि / एल- 2							ोओ		
ix.		Description	,,,,,	Total quantity of		Quantity	prop	osed to be	Timelii	ne for	quantity requirements as
		/Size/Rating/Sco	pe of	proposed item				proposed		•	schedule & whether the
		ontracting)	मद	envisaged in the				s/Running			ib-vendor equipped with
		त्ररण (प्रकार / आका प्राचंध का समस्य	र / राटग	package (Nos/ Running Meters				/Tons etc) केता (संख्या /			pacity to supply proposed v in time
	/ उप-उ	मनुबंध का दायरा)		Tons etc) इस पैवे		प्रस्तावित उप-विक्रेता (संख्या / order quantity in time क्रियाशील मीटर / किलोग्राम / परियोजना समय सूची के अनुसा					•
				परिकल्पित प्रस्तार्ग				दी जाने वाली			के लिए समय-सीमा और क्या
				की कुल मात्रा (संख	ज्या /	मात्रा ′			प्रस्तावि	त उप-ि	वेक्रेता समय पर प्रस्तावित मांग
				क्रियाशील मीटर /						ा की आ	पूर्ति करने में पूरी तरह से सक्षम
				किलोग्राम / टन अ	ादि)	1			है		
									<u> </u>		
x.	Suppl	y experience of t	he propo	sed sub-vendor ((including	supplies	to M	ain Contracto	or, if an	y) for	similar item/scope of sub-
	contro	acting, for last 3 y	ears (Not	te:- Only relevant	experien	nce detail:	s w.r.t.	proposed ite	em/scop	e of su	bcontracting to be brought
	out he	ere) पिछले 3 वर्षों	के लिए	उप-अनुबंध के सम	ान मद /	दायरे के ि	लेए प्रस	तावित सब-वे	ंडर (मुख	व्य संवि	दाकार हेतु आपूर्ति, यदि कोई
	हो, सर्	हित) का आपूर्ति अ	नुभव (नो	ट: - उप-अनुबंध वे	के प्रस्तावि	ोत मद / द	ायरे के	संबंध में केवर	न प्रासंगि	क अनु	भव के विवरण का उल्लेख हो



CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्वासन MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT मुख्य संविदाकार प्रस्ताव सह मुल्यांकन रिपोर्ट

	Project/Package परियोजना/पैकेज	Customer Name ग्राहर का नाम	क्र Supplied Item (Type/Rating/Model /Capacity/Size etc आपूर्तित मद (प्रकार/रेटिंग /मॉडल /क्षमता/आकार आदि)	no/date पीओ संदर्भ	Supplied Quantity आपूर्ति की मात्रा	Date of Supply आपूर्ति की तिथि
supply पास ३	ring the proposed item/scc गपेक्षित क्षमता और आपूर्ति व	ope of sub-contracting/ह करने का अनुभव है और उ	प्रकार प्रकार के प्रकार के प्रकार के प्रकार के प्रकार के प्रमुख्य के दायरे /प्रस्तावित म	बात की पुष्टि कर दकी आपूर्ति के ि	रते हैं कि, प्रस्ता	वित उप-विक्रेता के
Name नाम:	;	Desig: पद:	Contact No: दूरभाष सं.:	Sign: हस्ताक्षर:		Date: तिथि:

Company's Seal/Stamp:- कंपनी का मुहर:-



i.	Item/Scope of Sub-contracting	
	उप-संविदा(अनुबंध) का मद/ दायरा	
ii.	Address of the registered office पंजीकृत कार्यालय का पता	Details of Contact Person संपर्क व्यक्ति का विवरण
		(a)
		(Name, Designation, Mobile, Email) (नाम, पदनाम,
		मोबाइल, ईमेल)
iii.	Name and Address of the proposed Sub-vendor's works	Details of Contact Person: संपर्क व्यक्ति का विवरण
	where item is being manufactured प्रस्तावित उप-विक्रेता के	
	कार्यों का नाम और पता, जहां मद का निर्माण किया जा रहा है	(Name, Designation, Mobile, Email) (नाम, पदनाम,
		मोबाइल, ईमेल)
		1
iv.	Annual Production Capacity for proposed item/scope of s	sub-
	contracting उप-संविदा(अनुबंध) के प्रस्तावित मद / दायरे	
	लिए वार्षिक उत्पादन क्षमता	
v.	Annual production for last 3 years for proposed item/sc	оре
	of sub-contracting उप-संविदा(अनुबंध) के प्रस्तावित मद / द	गयरे
	के लिए पिछले 3 वर्षों का वार्षिक उत्पादन	
vi.	Details of proposed works प्रस्तावित कार्यों का	ा विवरण
1.	Year of establishment of present works वर्तमान फैक्टरी की स्थापना का वर्ष	7
<i>1</i> .	स्थापना का वर्ष Year of commencement of manufacturing at above work	
	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष	
	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में	
2.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो))	
2.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में	
2. 3.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो))	
2. 3.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र	
 3. 4. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है
 3. 4. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design)
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, per Main Contractor/purchaser design) Details attached at Annexure – F2.2
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, per Main Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र Design/ Research & development set-up डिजाइन / अनुसं और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उ	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, नकी विवाद क्षिप्त क्षिप्त क्षिप्त क्षिप्त क्षिप्त Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है)
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र Design/ Research & development set-up डिजाइन / अनुसं और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उ	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है।
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उर्थे योग्यता, मशीन और उपलब्ध उपकरण आदि)	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, नकी विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो)
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उत्योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी विवरण अनुलग्नक –एफ 2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो)
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificat machines & tools employed etc.) (श्रमिकों की संख्या, उत्योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details (Design/Manufacturing/Quality etc) मैनपावर विवरण	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी विवरण अनुलग्नक –एफ 2.2 पर संलग्न हीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो) Details attached at Annexure – F2.3 विवरण अनुलग्नक – F2.3 में संलग्न है।
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उत्योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी विवरण अनुलग्नक – एफ 2.2 पर संलग्न हों, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक – एफ 2.2 पर संलग्न है। (यदि लागू हो) Details attached at Annexure – F2.3 विवरण अनुलग्नक – F2.3 में संलग्न है।



0	After	sales service	set up in India, in case of foreigi	n suh-	A	Alak madi adala arru	/ 			
8.	-		ontact Person, Contact details etc.)	Applicable /	Not applicable लागू	/ लागू नहा				
		-	<i>जातिवटा महाउठाा, Contact details etc.,</i> ापना के बाद, विदेशी उप-विक्रेता के	Dataile attached at Annayana 52 4						
			•	Details attached at Annexure – F2.4 विवरण अनुलग्नक -2.4 पर संलग्न है।						
0		-	के, संपर्क विवरण आदि)							
9.			ocess execution plan with flow stages of manufacturing from			ched at Annexure – F	2.5 ।ववरण			
		_	f product including outsourced product		अनुलग्नक - F2	2.5में संलग्न है।				
		-	विनिर्माण प्रक्रिया निष्पादन योजना ,	-						
	•		यदि कोई हो, सहित कच्चे माल से							
			ा के विभिन्न चरणों को दर्शाया गया हो							
10.			terial/Major Bought Out Item कच्चे ।		Details atta	ched at Annexure – F	:2.6 विवरण			
10.	_	/ खरीदे हुए मुख	,			2.6में संलग्न है।	2.0 ((() (
11.		0,0	rcised during receipt of raw materia	I/BOI.		ched at Annexure – F	:२ ७ विवरण			
11.		-	esting, packing कच्चे माल / खरीदे हु			2.7 पर संलग्न है	2.7 199(9			
			रीक्षण, पैकिंग करते समय गुणवत्ता नि		जगुराक्षक - ह	2.7 4 < ((() %)				
12.		ıfacturing faci			Details atta	ched at Annexure – F	2.8 विवरण			
	-		ecial process facilities, material handlin	-	अनुलग्नक - F2	2.8में संलग्न है।				
		•	ग्शीनों की सूची ,विशेष प्रक्रिया सुर्ि 	वधाए,						
		ो रख-रखाव अ 	,							
13.			st of testing equipment) रीक्षण उपकरण की सूची)		Details attached at Annexure – F2.9 विवरण					
					अनुलग्नक – F2. 9 में संलग्न है।					
14.	-		process involves fabrication then	- याद	Applicable / Not applicable लागू / लागू नहीं					
-			ब्रिकेशन की गई है तो-		Details attached at Annexure – F2.10 विवरण					
-			lders पात्र वेल्डर की सूची		अनुलग्नक - F2.10में संलग्न है।					
			OT personnel with area of speciali	zation	(if applicable) लागू / लागू नहीं					
			हित पात्र एनडीटी कार्मिकों की सूची	. C. I.						
15.			d manufacturing processes with		Applicable / Not applicable लागू / लागू नहीं					
			nddresses सब-वेंडर द्वारा बाह्य स्रोतों	•						
	नामः	भार पत साहत)	से करवाएं गए निर्माण प्रक्रियाओं की	सूच।	Details attached at AnnexureF2.11 विवरण					
					अनुलग्नक - F2.10में संलग्न है।					
					(if applicable) (यदि लागू हो)					
16.			list including recent supplies नर्व	नितम	Details attached at Annexure – F2.12					
	आपूरि	र्ते सहित आपूर्ति	सदभ सूची		_	ाग्नक - F2.12 में संलग्न				
					(as per format given below) (नीचे दिए गए प्रारूप के अनुसार)					
Project		Customer	Supplied Item (Type/Rating/Model	PO ref	no/date पीओ	Supplied Quantity	Date of Supply			
packag		Name ग्राहक	/Capacity/Size etc) आपूर्ति की गई वस्तु	-	सं. / तिथि	आपूर्ति की मात्रा	आपूर्ति की तारीख			
	भारवाजना का नाम (प्रकार / रेटिंग / मॉडल /क्षमता /									
/पैकेज			आकार आदि)							
<i>17</i> .	Produ	-		dback	Attached at	annexure - F2.13 अन्	नुलग्नक F2. 3पर			
			End User Feedback उत्पाद के संतो		संलग्न है					
	प्रदर्शन	सब्धा फीडबेक	पत्र / प्रमाण पत्र / अंतिम उपयोगकर्ता र्फ़	डिबेक						



18.	Summary of Type Test Report (Type Test	Details, F	Applicable / Not applicable लागू / लागू नहीं						
	Agency, Date of testing) for the proposed	product							
	(similar or higher rating) प्रस्तावित उत्पाद (ए	एक समान य	ग उच्च रेटिंग						
	वाले) के लिए टाइप टेस्ट रिपोर्ट (टाइप टेस्ट ि	वेवरण, रि	पोर्ट संख्या,	Details o	attache	d at Annexure –	F2.14 वि	वरण	
	एजेंसी, जांच की तारीख) का सारांश			अनलगव	5 - F2 1	4में संलग्न है			
	नोट: - रिपोर्ट प्रस्तुत करने की आवश्यकता नहीं है	}		0					
	Note:- Reports need not to be submitted			(if applic	cable) (·	यदि लागू हो)			
19.	Statutory / mandatory certification for the	e propose	ed product	Applicat	ble / No	t applicable लाग्	<u>।</u> / लागु न	गहीं	
	प्रस्तावित उत्पाद के लिए वैधानिक / अनिवा	र्य प्रमाणी	करण		-				
	,			Details attached at Annexure – F2.15					
				(if applicable) (यदि लागू हो)					
20.	Copy of ISO 9001 certificate आईएसओ 900)1 प्रमाण प	गत्र की प्रति	Attached at Annexure – F2.16 अनुलग्नक में संलग्न -					
	(if available(यदि उपलब्ध हो)			F2.1 6 है					
21.	Product technical catalogues for proposed	d item (if	available)	Details attached at Annexure — F2.17 विवरण					
	प्रस्तावित मद के लिए उत्पाद तकनीकी कैटलो	<mark>ॉग (यदि</mark> उ	पलब्ध हो)	अनुलग्नक - F2.1 7 में संलग्न है					
						1 1	1		
Name	e:	Desig:			Sign:		Date:		
नाम:		पदः			हस्ता		तिथि:		
					•				
					क्षर:				

Company's Seal/Stamp:- कंपनी की मुहर / मोहर: -

KORBA FGD - RIGID STEEL CONDUITS BOQ

Item Number	Item Title	Item Description	Item Quantity	Unit of Measure	Consignee ID	ZipCode	Delivery Period (In number of days)	Unit Price (Inclusive of TAX)	GST % Applicable	Brand	Model	HSN Code
1	558-15001-A	GI CONDUITS,1.6MM THK EPOXY 20MM DIA	500	MTR	PEM_KORBA1	495450	210					
2	558-15002-A	GI CONDUITS,1.6MM THICK, 20MM DIA	17300	MTR	PEM_KORBA1	495450	210					
3	558-15003-A	GI CONDUITS,1.6MM THICK, 25MM DIA	2800	MTR	PEM_KORBA1	495450	210					
4	558-15005-A	GI CONDUITS,2.0MM THICK, 50MM DIA	2400	MTR	PEM_KORBA1	495450	210					

3 X 200 + 3 X 500 + 1 X 500 MW NTPC KORBA TPP STAGE I, II & III (FGD System Package)

TECHNICAL SPECIFICATION FOR

RIGID STEEL CONDUITS

SPECIFICATION NO.: PE-TS- 466-558-E002

REVISION: 0



BHARAT HEAVY ELECTRICALS LIMITED POWER SECTOR PROJECT ENGINEERING MANAGEMENT NOIDA, UP (INDIA) – 201301

42311<u>8/2021/PS-PEM-EL</u>



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS- 466-558-E002

VOLUME NO.: II-B

SECTION: I

REV NO.: 00 DATE: 20.08.2021

SHEET : 1 OF 11

CONTENTS

S. NO	DESCRIPTION	NO. OF SHEETS
1	SECTION I	
	COMPLIANCE CERTIFICATE	01
	SPECIFIC TECHNICAL REQUIREMENTS	01
	DATASHEET A	01
2	SECTION II	
	STANDARD TECHNICAL REQUIREMENTS	02
	STANDARD QUALITY PLAN	03



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS- 466-558-E002
VOLUME NO.: II-B
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OF 11

COMPLIANCE CERTIFICATE

SHEET

The bidder shall confirm compliance to the following by signing/ stamping this compliance certificate and furnishing same with the offer.

- 1. The scope of supply, technical details, construction features, design parameters etc. shall be as per technical specification & there are no exclusion/ deviation with regard to same
- 2. There are no deviation with respect to specification other than those furnished in the 'schedule of deviations'
- 3. Only those technical submittals which are specifically asked for in NIT to be submitted at tender stage shall be considered as part of offer. Any other submission, even if made, shall not be considered as part of offer.
- 4. Any comments/ clarifications on technical/ inspection requirements furnished as part of bidder's covering letter shall not be considered by BHEL, and bidder's offer shall be construed to be in conformance with the specification.
- 5. Any changes made by the bidder in the price schedule with respect to the description/ quantities from those given in BOQ-Cum-Price schedule of the specification shall not be considered (i.e., technical description & quantities as per specification shall prevail).

BIDDER'S STAMP & SIGNATURE

42311<u>8/2021/PS-PEM-EL</u>



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS- 466-558-E002

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SECTION - I



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS-	466-558-E002
VOLUME NO :	II B

SECTION: I

REV NO.: 00 DATE: 20.08.2021

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SPECIFIC TECHNICAL REQUIREMENTS

1.0 SCOPE

- 1.1 Manufacture, Inspection and Testing at Manufacturer's works, proper packing and delivery to site of rigid steel conduits conforming to this specification.
- 1.2 Technical requirements of rigid steel conduits are indicated in Data Sheet-A & Section-II.
- 1.3 The stipulation of Data Sheet-A shall prevail in case of any conflict between the stipulations of Data Sheet-A & Section-II.

2.0 BILL OF QUANTITIES

The bidder to quote for items as per price schedule attached with NIT.

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 item(s)/package will be supplied free of cost in most reasonable time."

3.0 DRAWINGS & DOCUMENTS TO BE SUBMITTED

- 3.1 Bidders shall furnish following documents as the part of their technical offer:
 - a) Complete signed & stamped copy of this specification.
 - b) "Deviation Schedule" with "NO Deviations" and bidder's signature and company stamp.
 - c) Unpriced Price Schedule as enclosed with NIT with 'Quoted" word against items with bidder's signature and company stamp.
- 3.2 Document submission / resubmission schedule after placement of order shall be as per NIT.

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4.0 PACKING

4.1 Packing shall be as per Clause 5 of Section -II.



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

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DATASHEET-A

I. APPLICABLE STANDARDS & CODES

a) IS:9537 (Part I & II) Conduits for electrical installation.

b) IS:2629 Recommended practice for hot dip galvanizing on iron and steel.

c) IS:4759 Specification for hot dip zinc coatings on structural steel and allied

products

d) IS:6745 Methods for determination of mass of zinc coating on zinc coated

iron and steel articles.

e) IS:513 Cold reduced low carbon steel sheet and strip

f) IS: 10748 Hot rolled Steel strip for welded tubes and pipes

g) IS: 2633 Method for testing uniformity of coating on zinc coated articles

h) IS:6005 Code of practice for phosphating iron & steel

II. RIGID STEEL CONDUITS

S.No.	Description	Unit	Parameters value/ type
а	Make	-	BIS approved
			[] As per enclosed sub-vendor list
b	Material	-	Hot/Cold rolled mild steel
С	Sizes	-	As per BOQ cum price schedule
d	Standard length	meter	3 – 5
е	Classification as per		Heavy
	mechanical properties		
f	Conduit thickness	mm	1.6 upto 25 mm dia,
	(minimum)		2.0 above 25 mm & upto 50 mm dia
g	Surface treatment	-	Hot dip galvanizing on inside & outside
			surface
h	Epoxy thickness	micron	50 (applicable for epoxy coated conduits only)

III. SURFACE TREATMEMT

а	Pre-treatment	_	As per IS 6005 prior to galvanising
b	Туре	_	Hot dip galvanizing as per IS 2629
С	Min. Thickness of zinc	microns	48 (upto 25 mm dia),
	coating		65 (above 25 mm & upto 50 mm dia)
d	Min. Weight of zinc	(gm/m2)	340 (upto 25 mm dia)
	coating		460 (above 25 mm & upto 50 mm dia)
е	Tests for galvanizing	_	a) Weight of zinc coating as per IS : 6745
			b) Thickness of zinc coating as per IS : 4759
			c) Uniformity of zinc coating as per IS : 2633
			d) Adhesion as per IS: 2629



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

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VOLUME NO.: II-B

SECTION: II

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SECTION-II



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS- 466-558-E002
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1.0 INTENT OF SPECIFICATION

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 up to & 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 AND 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 The material, construction, manufacture, inspection and testing of Rigid steel conduits shall conform to the latest revision of relevant standards as per Data Sheet-A.
- 2.3 In case of conflict between the applicable reference standard and this specification, the stringent requirement of the two shall govern.

3.0 TECHNICAL REQUIREMENTS

- 3.1 Rigid conduits shall generally conform to the requirements of IS: 9537 (part I & II).
- 3.2 The diameter of conduits shall be uniform throughout the length. Each end of conduit length shall be threaded. The ends of conduits shall be sealed with protective caps to prevent damage to threaded portions and entrance of moisture and foreign material.
- 3.3 The inside surface of all conduits shall be smooth and suitable for pulling insulated cables and wires without damage.
- 3.4 Technical particulars of rigid conduits are specified in Data Sheet A.

4.0 QUALITY ASSURANCE, TESTING & INSPECTION

- 4.1 Bidder shall confirm compliance with the BHEL's Standard Quality Plan (PE-QP-999-558-E001) as attached with the specification without any deviations. At contract stage, the successful bidder shall submit the Quality Plan for BHEL/ ultimate customer's approval. In case bidder has reference Quality Plan agreed with ultimate customer, same can be submitted for specific project after award of contract for BHEL/ ultimate customer's approval. There shall be no commercial implication to BHEL on account of Quality plan approval.
- 4.2 All materials shall be procured, manufactured, inspected and tested by vendor/ sub-vendor as per approved quality plan.
- 4.3 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 the specification. Charges for all these tests for all the equipments & components shall be deemed to be included



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

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in the bid price.

4.4 In case ordered quantities are manufactured and offered for inspection in more than one lot, BHEL reserves the right to witness testing on all lots without any commercial implication to BHEL.

5.0 PACKING

- 5.1 The material shall be packed to ensure protection against damage during transit, storage for prolonged periods and handling.
- 5.2 The ends of conduits shall be sealed with protective caps.
- 5.3 Each conduit shall be wrapped in plastic to prevent dust deposition.
- 5.4 The conduits should be aligned and stacked in bundles (a maximum of 25 pieces per bundle).
- 5.5 Each bundle shall be covered with jute fibre / thick plastic wrap for protection against extreme weather. Then, the bundle shall be tied with twin-strand mild steel wire, strong rope or steel strip.

6.0 MARKING

- 6.1 Rigid conduits shall be marked at least once on each manufacturing length, preferably 50 mm from one end, with the following:
- a) Manufacturer's name or trade mark, if any;
- b) Country of manufacture; and
- c) Nominal size of the conduits.
- d) ISI Certification Mark.

Marking may be applied by moulding, stamping, printing, adhesive label or water slide transfers.

- 6.2 Marking shall be durable and legible.
- 6.3 Marking shall be checked by inspection and by rubbing lightly the marking by hand for 15 seconds with a piece of cloth soaked with water and again for 15 seconds with a piece of cloth soaked with petroleum spirit.

्रची गाउ र से	MANUFAC SUPPLIER	TURER/ B NAME & ADDRESS	IDDER/	STANDARD QUALITY PLAN					SPEC. NO:					DATE:	
	बीएम इंएल				CUSTOMER:				QP NO.: PE-QP-999-558-E001, R04				DATE: 23.07.2020		
				PROJECT:					PO N	O.:					DATE:
				ITEM: RIGID S	TEEL CONDUI	TTS SYSTI	EM: STATION LI EM	GHTING	SECT	TION: II					SHEET 1 OF 3
SL NO.	COMPONENT & OPERATIONS	CHARACTERISTIC S	CLASS	TYPE OF CHECK	QUAN OF CH		TUM REFERENCE ACCEPT		E FURIMAT				AGENCY		REMARKS
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	_				М	C/ N					D	M	С	N	
1.0 RAW	/ MATERIAL/BOU	GHT OUT ITEMS	T	1	1	1		1		T	1				1
1.1		HOT ROLLED STEEL STRIP	MA	VISUAL, MECH. & CHEMICAL	MFR. STD.	-	IS10748	IS107	⁷ 48	TEST CERT.	√	Р	V	_	AS APPLICABLE
1.2		COLD ROLLED STEEL SHEET	MA MICOL 9 MICO CITY 10612		IS5′	IS513 TEST CERT.		V	Р	V	-	AS APPLICABLE			
2.0 ACC	EPTANCE TESTS														
2.1		DIMENSIONS	MA	MEASUREM ENT	IS 9537-II	IS 9537-II	IS:9537/ APPROVED DATA SHEET	APPRO\ DATA SI		INSP. REPORT	٧	Р	w	-	
2.2		MECH. PROPERTIES													
2.2A	RIGID STEEL CONDUITS	BENDING TEST	CR	TEST	IS 9537-II	IS 9537-II	IS 9537-II	IS 9537-	II	INSP. REPORT	√	Р	w	-	
2.2B		COMPRESSION TEST	CR	TEST	IS 9537-II	IS 9537-II	IS 9537-II	IS 9537-	II	INSP. REPORT	√	Р	w	-	
2.3		GALVANISATION TEST													
2.3A		UNIFORMITY OF ZINC COATING	CR	TEST	IS 9537-II	IS 9537-II	IS-2633/ APPD DS	IS-2633/ APPD D		INSP. REPORT	√	Р	W	-	
		BHEL				BIDDER/	SUPPLIER	\neg		FOR CUST	OMER	REVI	EW &	APPE	ROVAL

Sign & Date

Seal

QUALITY

Name

Ricall Sound by RITESH RUMAR JAISWAL DN: c=N, o=Bharat Heavy Electricals Ltd, GLAHE SANN As (Code=201301,

KUNAL

GANDHI

Sign & Date

RITESH KUMAR JAISWAL

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ENGINEERING

Name

tally sipogo ARA FINDER N c=N, o=BHARAT HEAVY ELECTRICALS ITED, ou-FINDER SIND OA-201301, JITAR PRADESN,

MEET SAGAR SINGH RAJPAL/ MUDIT CHOPRA

Reviewed

Sign & Date

Prepared

Reviewed

by:

MEET SAGAR
SINGH RAJPAL

SINGH RAJPAL

District Sacration of the Sacration

Doc No:

Reviewed

Approved

by:

Sign & Date

Name

Seal

-	SUPPLIER	NAME & ADDRESS	IDDER/	S	STANDARI	QU	JALIT	TY PLAN		SPEC	. NO :					DATE:
4				CUSTOMER:						QP N	O.: PE-QP-999	-558-E()01, R	204		DATE: 23.07.2020
<i> </i>				PROJECT:			PO NO.:									DATE:
				ITEM: RIGID S'	TEEL CONDUI	TS	SYST SYST	EM: STATION LIEEM	GHTING	SECT	ION: II					SHEET 2 OF 3
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	2	3	4	5	6			7	8		9	*		**		
	2	3	4	5	М	C.	/ N	1	٥		9	D	М	С	Ν	
3		MASS OF ZINC COAT.	CR	TEST	IS 9537-II	IS 9	9537 -II	IS-6745/ APPD DS	IS-6745/ APPD DS	6	INSP. REPORT	1	Р	w	-	
;		COATING THICKNESS	CR	TEST	IS 9537-II	IS 9	537-II	IS-4759/ APPD DS	IS-4759/ APPD DS	6	INSP. REPORT	V	Р	W	_	BY ELCOMETER Refer Note 8
)		EPOXY THICKNESS	MA	VISUAL/PH YSICAL	IS 9537-II	IS 9	537-II	50 MICRONS	50 MICR	ONS	INSP. REPORT	V	Р	w	-	AS APPLICABLE
		MARKING	CR	VISUAL/PH YSICAL	IS 9537-II	IS 9	537-II	APPROVED DATA SHEET	APPROV DATA SI		INSP. REPORT		Р	w	-	
A	CKING															
	PACKING	Soundness of Packing against transit damage	Major	Visual	100%	1	00%	BHEL * approved document	BHEL approved documer		Inspection report	√	Р	W	-	
)		COATING THICKNESS EPOXY THICKNESS MARKING Soundness of Packing against	CR MA CR	TEST VISUAL/PH YSICAL VISUAL/PH YSICAL	IS 9537-II IS 9537-II IS 9537-II	IS 9	537-II 537-II 537-II	IS-4759/ APPD DS 50 MICRONS APPROVED DATA SHEET BHEL * approved	IS-4759/ APPD DS 50 MICR APPROV DATA SH BHEL approved	ONS /ED HEET	INSP. REPORT INSP. REPORT INSP. REPORT	\ \ \	PP		w w	w - w - w -

NOTES:

- 1. The inspection shall be carried out once for the material offered for inspection in one lot. For subsequent lots against the same project, the material can be accepted based on certificate of compliance furnished by the vendor.
- 2. Project specific QP shall be based on customer requirement. In case, any changes in QP commented by customer at contract stage shall be carried out by bidder without any implication to BHEL/ Customer.
- 3. For export jobs, BHEL technical specification for seaworthy packing for export jobs is to be followed.
- 4. Packing shall be suitable for storage at site in tropical climatic conditions. *Packing shall be done as per Clause 5 of Section -II of Technical specification.

		ВНЕ	EL			BII	DDER/ SUPPLIER		FOR CUS	TOMER REVI	EW & APPROVAL	
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	DUTTA /	dd61dd68dbef4c976429c5c374e3b47b930, cn=PRAVEEN DUTTA Date: 2020.07.25 12:27:26+05'30'		JAISWAL	serialNumber=8cfaddf001b4875a8b03a3b0 00e99f205304f62c950e6d59ed9980e09bc448 , cn=RITESH KUMAR JAISWAL Date: 2020.07.29 0859:18+05'30'							

<i>बीएच इंएल</i>	MANUFAC SUPPLIER	TURER/ B' NAME & ADDRESS	IDDER/	S	TANDARD QUAL	ITY PLAN		SPEC. NO:		DATE:	
ntice.				CUSTOMER:				QP NO.: PE-QP-999-558-E00	1, R04	DATE: 23.07.2020	
	J			PROJECT:				PO NO.:		DATE:	
				ITEM: RIGID ST	TEEL CONDITTS 1	STEM: STATION LIG STEM	HTING	SECTION: II		SHEET 3 OF 3	
el C	OMPONENT	CHARACTERISTIC	CLASS	TVDE OE	OHANTHM	REFERENCE	ACCEPT	TANC FORMAT OF		DEMARKS	

SL NO.	COMPONENT & OPERATIONS	CHARACTERISTIC S	CLASS	TYPE OF CHECK	QUANT OF CHE		REFERENCE DOCUMENT	ACCEPTANC E NORMS	FORMAT RECOR		AC	SENC	Y	REMARKS
,				_	6		_	•	_	*		**		
1	2	3	4	5	М	C/ N	/	8	9	D	М	С	N	

- 5. Latest revision/ year of issue of all the standards (IS/ ASME/ IEC etc.) Indicated in QP shall be referred.
- 6. BHEL reserves the right for conducting repeat test if required.
- 7. After packing and prior to issue MDCC, photographs of items to be dispatched shall be sent to BHEL purchase group for review.

Sign & Date Seal

8. Thickness of zinc coating shall be the average of the determination made at each end and the middle of the article.

LEGENDS:

*RECORDS, INDENTIFIED WITH "TICK"(\(\struct \) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION,

** M: SUPPLIER/ MANUFACTURER/ SUB-SUPPLIER, C: MAIN SUPPLIER/ BHEL/ THIRD PARTY INSPECTION AGENCY, N: CUSTOMER,

P: PERFORM, W: WITNESS, V: VERIFICATION, AS APPROPRIATE

MA: MAJOR, MI: MINOR, CR: CRITICAL, D: DOCUMENTATION

		ВНЕ	EL		
	ENGINEERIN	IG		QUALITY	
	Sign & Date	Name		Sign & Date	Name
Prepared by:	MEET SAGAR SINGH RAJPAL ORDINATION OF THE PROPERTY OF THE PRO		Checked by:	Digitally signed by Nursal Die cn=Kunsl, o, ou, emsl=i-unulgandhip bhelin, c=l% Date: 2020(07.29 CO.21:33+0530'	KUNAL GANDHI
Reviewed by:		LIMITED, ou=\$5-PEM: opstalCode=201301,	Reviewed by:	RITESH	Reitall Kigned by RITESH KUMAR JASWAL DV: A=N CO-EN Family Heavy Electricals Ltd, out Bratte N-2-4 Emily Adstal Code=201301, st=littat Paridish
	DUTTA	d61dd68dbef4c976429c5c374e3b47b930, cn=PRAVEEN DUTTA Date: 2020.07.25 12:27:51+05'30'		KUMAR /	2.5.4.20=16692a281523bf78b46a8e18c5c dbbb189777532609b5349ae8d7191a9e5 1174.

BIDDER/ SUPPLIER		FOR CU	STOMER REVII	EW & APPROVAL	
Pate	Doc No:				
		Sign & Date	Name	Seal	
	Reviewed by:				
	Approved by:				



PRE-QUALIFICATION REQUIRMENTS FOR RIGID STEEL CONDUITS

PE-PQ-999-558-E002

REVISION NO. 01 DATE 20/03/2017

SHEET NO. 1 OF 1

ITEMS	: RIGID STEEL CONDUITS
SCOPE	: Supply : YES; Erection & Commissioning : NO.
1.0	Vendor should be a BIS approved manufacturer of rigid steel conduits as per IS 9537 Part II.
2.0	Availability of test reports of rigid steel conduits to establish in- house capability at manufacturer's works to carry out all routine, type & acceptance tests as per relevant IS.
3.0	Capacity of manufacturing 30 MT of rigid steel conduits per month.
4.0	Manufactured and supplied at least 80 km of rigid steel conduits in one or more orders.
5.0	Minimum two (2) nos. purchase orders for rigid steel conduits shall be submitted which should not be more than five (5) years old from the date of application for registration or date of technocommercial bid opening (as applicable) for establishing continuity in business.

NOTE:

- 1. The vendor can offer rigid steel conduits of any BIS approved make meeting criteria S.No.1 to 4 above. The vendor to furnish the following documents:
- a) Undertaking from BIS approved manufacturer of offered make to get the inspection & testing of conduits carried out at manufacturer's works.
- b) Credentials of the manufacturer of offered make to meet the PQR requirements of S no 1.0 to 4.0 above.
- c) Vendor's Credentials to meet S no 5.0.
- 2. Consideration of offer shall be subject to customer's approval of bidders, if applicable.
- 3. 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.
- 4. Any other project specific requirement shall be as per Annexure-I and bidder shall submit relevant supporting documents.
- 5. Notwithstanding anything stated above, BHEL reserves the right to assess the capabilities and capacity of the bidder/collaborators to perform the contract, should the circumstances warrant such assessment in the overall interest of BHEL.
- 6. After satisfactory fulfillment of all the above criterial requirement, offer shall be considered for further cvaluation as per NIT and all the other terms of the tender.

PREPARED BY

Nutrial Color of the Color of t

Letter head of Company (<Rs. 10 Cr value)

Ref	Date
То,	
Bharat Heavy Electricals Limited PEM,	
PPEI Building, Plot No 25, Sector -16A,	
Noida (U.P)-201301	
Subject: -Certification regard	ding local content
Reference: Tender Enquiry No	
Name of Package:	
Dear Sir,	
We hereby certify that items offered by us of Name/Rate contract) meets the requirement of min NIT No dated and the Public Procuremed dated-15.06.2017, 28.05.2018, 29.05.2019, 04.06.2020 &	nimum local content in line with Cl. No of ent (Preference to Make in India), Order 2017
Local Content%	
We further confirms that details of location at which the lower works at(address	
	Yours very truly
	(authorized signatory of company)
	(firm name)

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

Kind Attn. Mr.
Dear Sir,
This has reference to:
1. Our offer for PVC Wires for Combined Tender Enquiry (2 X 250 MW NSPCL Bhilal TPP-FGD, 2X500 MW NTPC MAUDA FGD STAGE-I, 3X200 + 3X500 MW NTPC RAMAGUNDAM TPP FGD, 3X200+3X500+1x500 MW NTPC KORBA TPP-FGD, 3X660 MW North Karanpura FGD, 3X660 MW NPGCL NABINAGAR FGD and 4X250MW BRBCL Nabinagar FGD projects), GeM Tender No
2. Order no. F. No. 6/18/2019-PPD dt. 23.07.2020 issued by Ministry of Finance, Department of Expenditure Public Procurement Division.
I have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India; I certify that M/s (Company Name) is not from such a country or , if from such a country, has been registered with the competent authority. (Remove the non-applicable)
I hereby certify that M/s (Company Name) fulfil all requirements in this regard and is eligible to be considered.
[where applicable, evidence of valid registration by the competent authority shall be attached]
Thanking You, Yours faithfully,
Owner, partner, CMD, Director, Authorized Signatory with proof that he/she is authorized to sign on owner's behalf
M/s

ANNEXURE FOR RISK & COST

1. In case of delays (beyon d the maximu m late delive ry period as per LD cl ause) in supplie s, or if there be defective su pplies or no n-fulfilment of any other terms and conditions of the Co ntract as en umerated subsequently in this clause, then, without prejudice to its right to recover any expenses, losses or damages to which the B uyer may be put to in cur or sustain by reason of the Seller/Contractor's default or b reach of Order/Contract or to suspend business dealings with the Seller/Contractor in terms of the Buyers' Guidelines for Suspension of Business Dealings as applicable from time to time, the Buyer shall also be entitled to cancel the Order/ Contract either in whole or portion thereof without compensation to Seller. On the occurrence of any of the acts/omission's mentioned below, the Buyer may if it so desi res, procure upon such terms and in such manner as deemed appropriate, plant/equipment/ stores not so delivered or others of similar description where plant/ equipment/ stores exactly complying with particulars are not, in the opinion of the Buyer (which shall be final), readily procurable, at the risk and cost of the Seller.

The Seller shall be liable to the Buyer for any excess costs incurred thereof and the Seller shall continue the performance of the Order/Contract to the extent not cancelled under the provisions of this clause. The Seller shall on no account be entitled to any gain on such repurchases. If the Bidder does not agree to this Risk Purchase clause, BHEL reserves the right to reject the bid/offer of the Bidder. The order/contract may be cancelled in whole or part thereof and Risk & Cost Clause in line with terms and conditions of PO/Contract may be invoked by the Buyer in any of the following cases:

- i. If the Seller/Contractor fails to deliver the good s or materials or any instalment thereof within the period(s) fixed for such delivery or the Seller's poor progress of the supply/services vis-à-vis delivery/execution timeline as stipulated in the contract, backlog attributable to the Seller including unexecuted portion of supply does not appear to be executable within balance period available;
- ii. delivers g oods or mat erials not of the cont racted quality and failing to adhe re to the contract specifications/execution methodology;
- iii. withdrawal from or repudiation/abandonment of the supply/services by the Seller before completion as per contract or if the Seller refuses or is unable to supply goods or materials covered by the order/Contract either in whole or in part or otherwise fails to perform the Order/Contract.
- iv. Non supply by the Seller within scheduled completion/delivery period as per contract or as extended from time to time for reasons attributable to the Seller;
- v. Termination of Contract on account of any other reason(s) attributable to the Seller.
- vi. Assignment, transfer, sub-letting of Contract with out BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
- vii. If the Seller be an individual or a Sole Proprietorship, in the event of death or insanity of the Seller.
- viii. If the Seller/Contractor being an individual or if a partnership firm thereof, shall at any time be a djudged insolvent or shall have a receivin g order for administration of his estate made against him or shall take a ny proceeding for composition under any Insolvency Act for the time being in force or make any assignment of the order/Contract or enter into any arrangement or composition with his creditors or suspend payment or if the firm dissolved under the Partnership Act;
- ix. If the Seller/Co ntractor being a Company is wound up voluntarily or by order of a Court or a Receiver, Liquidator or Manager on behalf of the debenture holders and creditors is appointed or circumstances have arisen which entitles the Court of debenture holder and creditors to appoint a receiver, liquidator or manager
- x. Non- Compliance to any contractual condition or any other default attributable to the Seller.

Such defaulting vendor/Seller shall not be eligible to participate in re-tendering conducted on account of risk purchase made due to fault of such vendor/Seller.

- 2. BHEL's right to go for Risk and Cost, Calcul ation of Risk and Cost amount & L D, recovery options to BHEL are given as under: -
 - 2.1 BHEL reserves the right to terminate the contract or withdraw portion of work and get it do ne through other agency, at the risk and cost of the contractor after due notice of a period of 14 days' by BHEL in any of the following cases:
 - i) If the Sell er/Contractor fails to deliver the go ods or materials or any in stalment there of within the period(s) fixe d for such d elivery or the Seller's poor p rogress of the su pply/services v is-a-vis delivery/execution timeline as stipulated in the Contract, backlog attributable to sell er including unexecuted portion of supply does not appear to be executable within balance available period;
 - ii) Delivers g oods o r mat erials not of the contracted quality and failing to adhe re to the contract specifications;
 - iii) Withdrawal from or repudiation/ abandonment of the supply/ services by Seller before completion as per contract or if the Seller refu ses or is unable to supply go ods or materials covered by the Order/Contract either in whole or in part or otherwise fails to perform the Order/Contract;
 - iv) Non-supply by the Seller within scheduled completion/delivery period as per Contract or as extended from time to time, for the reasons attributable to the Seller;
 - v) Termination of Contract on account of any other reason (s) attributable to Seller.
 - vi) Assignment, transfer, subletting of Contract without BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
 - vii) If the Seller be an individual or a sole proprietorship Firm, in the event of the death or insanity of the Seller;
 - viii) If the Seller/Contractor being an individual or if a firm on a partnership thereof, shall at any time, be adjudged insolvent or shall have a receiving order for administration of his estate made against him or shall take any proceeding for composition under any Insolvency Act for the time being in force or make any assignment of the Order/Contract or enter into any arrangement or composition with his creditors or suspend payment or if the firm dissolved under the Partnership Act;
 - ix) If the Seller/Contractor being a company is wound up voluntarily or by order of a Court or a Receiver, Liquidator or Manager on behalf of the debenture holders and creditors is appointed or circumstances shall have ari sen which entitles the Court of debenture holder and creditors to appoint a receiver, liquidator or manager;
 - x) Non-compliance to any contractual condition or any other default attributable to Seller.

2.1.1 Risk & Cost Amount against Balance Work:

Risk & Cost amount against balance work shall be calculated as follows:

Risk & Cost Amount= $[(A-B) + (A \times H/100)]$

Where,

A= Value of Balance scope of Work (*) as per rates of new contract

B= Value of Balance scope of Work (*) as per rates of old contract being paid to the contractor at the time of termination of contract i.e. inclusive of PVC & ORC, if any.

H = Overhead Factor to be taken as 5

In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero).

2.1.2 Balance scope of work (in case of termination of contract):

Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work for calculating risk & cost amount.

Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities.

Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities a sper issued drawings would be deemed to be contract quantities.

Substitute/ extra items whose rates have already been approved would form part of contract quantities for this purpose.

Substitute/ extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions.

However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose.

NOTE: In case portion of work is being withdrawn at risk & cost of contractor instead of termination of contract, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work' for calculating Risk & Cost amount.

2.1.3 LD against delay in executed work in case of Termination of Contract:

LD against delay in executed work shall be calculated in line NIT terms & conditions, for the delay attributable to contractor. For limiting the maximum value of LD, contract value shall be taken as Executed Value of work till termination of contract.

Method for calculation of LD against delay in executed work in case of termination of contract" is given below:

- i. Let the time period from scheduled date of start of wo rk till termination of contract excluding the period of Hold (if any) not attributable to contractor = T1
- ii. Let the value of executed work till the time of termination of contract = X
- **iii.** Let the Total Executable Value of work for which inputs/fronts were made available to contractor and were planned for execution till termination of contract = Y
- iv. Delay in executed work attributable to contractor i.e. $T2 = [1-(X/Y)] \times T1$
- v. LD shall be caculated in line with LD cause (clause 16) of the Contract for the delayattributable to contractor taking "X" as Contract Value and "T2" as period of delay attributable to contractor.

2.2 Recoveries arising out of Risk & Cost and LD or any other recoveries due from Contractor:

Without prejudice to the other means of recovery of such dues from the Seller recoveries from the Seller on whom risk

& cost has been invoked shall be made from the following:

- a) Dues available in the form of Bills payable to seller, SD, BGs against the same contract.
- b) Dues payable to seller against other contracts in the same Region/Unit/ Division of BHEL.
- c) Dues payable to seller against other contracts in the different Region/Unit/ division of BHEL.

In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against contractor.



CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्वासन MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT मुख्य संविदाकार प्रस्ताव सह मुल्यांकन रिपोर्ट

Ref No	o:					Do	ite:				
संदर्भ	सं.:					ति	थिः				
i.	Main	Contractor									
	मुख्य	संविदाकार									
ii.		ct परियोजना									
iii.	Packa	ge Name पैकेज						Package No	पैकेज		
	का ना	म						सं.			
iv.	Propo	sed Item/Scope o	f Sub-con	tracting उप-							
	संविदा	(अनुबंध) का प्रस्ता	वेत मद्र/ व	ायरा							
v.		covered under	Sche	dule-1				er contract cla			
	निम्नर्रि शामिर	तेखित के अंतर्गत न मद	/अनु	सूची- 1			अनुबंध	थ के अनुसार र	वंड सं	-	
			Sche	dule-2 अनुसूची	2						
vi.			•								
	If iten	n is Schedule-1 an	d propose	ed sub-vendor is							
	indige	enous, Main Cont	ractor to e	explain how the							
	contro	actual provisions	will be ful	filled	/यदि						
		नुसूची - 1 है और प्रस्त									
		मुख्य संविदाकार के धान कैसे पूरे किए ज		। हागा कि सापदा/	अनुबध						
vii.		and Address of t		sed Sub-vendor's	works /प्र	स्तावित स	ब-वेंडर	का नाम तथा	पता		
viii.		acement date/ St ान की तिथि / एल- 2							ोओ		
ix.		Description	,,,,,	Total quantity of		Quantity	prop	osed to be	Timelii	ne for	quantity requirements as
		/Size/Rating/Sco	pe of	proposed item				proposed		•	schedule & whether the
		ontracting)	मद	envisaged in the				s/Running			ib-vendor equipped with
		त्ररण (प्रकार / आका प्राचंध का समस्य	र / राटग	package (Nos/ Running Meters				<i>/Tons etc)</i> क्रेता (संख्या /			pacity to supply proposed y in time
	/ उप-उ	मनुबंध का दायरा)		Tons etc) इस पैवे			_	/ किलोग्राम /			, मय सूची के अनुसार मात्रा
				परिकल्पित प्रस्तार्ग				दी जाने वाली			के लिए समय-सीमा और क्या
				की कुल मात्रा (संख	ज्या /	मात्रा ′			प्रस्तावि	त उप-ि	वेक्रेता समय पर प्रस्तावित मांग
				क्रियाशील मीटर /						ा की आ	पूर्ति करने में पूरी तरह से सक्षम
				किलोग्राम / टन अ	ादि)	1			है		
									<u> </u>		
x.	Suppl	y experience of t	he propo	sed sub-vendor ((including	supplies	to M	ain Contracto	or, if an	y) for	similar item/scope of sub-
	contro	acting, for last 3 y	ears (Not	te:- Only relevant	experien	nce detail:	s w.r.t.	proposed ite	em/scop	e of su	bcontracting to be brought
	out he	ere) पिछले 3 वर्षों	के लिए	उप-अनुबंध के सम	ान मद /	दायरे के ि	लेए प्रस	तावित सब-वे	ंडर (मुख	व्य संवि	दाकार हेतु आपूर्ति, यदि कोई
	हो, सर्	हित) का आपूर्ति अ	नुभव (नो	ट: - उप-अनुबंध वे	के प्रस्तावि	ोत मद / द	ायरे के	संबंध में केवर	न प्रासंगि	क अनु	भव के विवरण का उल्लेख हो



CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्वासन MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT मुख्य संविदाकार प्रस्ताव सह मुल्यांकन रिपोर्ट

	Project/Package परियोजना/पैकेज	Customer Name ग्राहर का नाम	क्र Supplied Item (Type/Rating/Model /Capacity/Size etc आपूर्तित मद (प्रकार/रेटिंग /मॉडल /क्षमता/आकार आदि)	no/date पीओ संदर्भ	Supplied Quantity आपूर्ति की मात्रा	Date of Supply आपूर्ति की तिथि
supply पास ३	ring the proposed item/scc गपेक्षित क्षमता और आपूर्ति व	ope of sub-contracting/ह करने का अनुभव है और उ	प्रकार प्रकार के प्रकार के प्रकार के प्रकार के प्रकार के प्रमुख्य के दायरे /प्रस्तावित म	बात की पुष्टि कर दकी आपूर्ति के ि	रते हैं कि, प्रस्ता	वित उप-विक्रेता के
Name नाम:	;	Desig: पद:	Contact No: दूरभाष सं.:	Sign: हस्ताक्षर:		Date: तिथि:

Company's Seal/Stamp:- कंपनी का मुहर:-



i.	Item/Scope of Sub-contracting	
	उप-संविदा(अनुबंध) का मद/ दायरा	
ii.	Address of the registered office पंजीकृत कार्यालय का पता	Details of Contact Person संपर्क व्यक्ति का विवरण
		(a)
		(Name, Designation, Mobile, Email) (नाम, पदनाम,
		मोबाइल, ईमेल)
iii.	Name and Address of the proposed Sub-vendor's works	Details of Contact Person: संपर्क व्यक्ति का विवरण
	where item is being manufactured प्रस्तावित उप-विक्रेता के	
	कार्यों का नाम और पता, जहां मद का निर्माण किया जा रहा है	(Name, Designation, Mobile, Email) (नाम, पदनाम,
		मोबाइल, ईमेल)
		1
iv.	Annual Production Capacity for proposed item/scope of s	sub-
	contracting उप-संविदा(अनुबंध) के प्रस्तावित मद / दायरे	
	लिए वार्षिक उत्पादन क्षमता	
v.	Annual production for last 3 years for proposed item/sc	оре
	of sub-contracting उप-संविदा(अनुबंध) के प्रस्तावित मद / द	गयरे
	के लिए पिछले 3 वर्षों का वार्षिक उत्पादन	
vi.	Details of proposed works प्रस्तावित कार्यों का	ा विवरण
1.	Year of establishment of present works वर्तमान फैक्टरी की स्थापना का वर्ष	7
<i>1</i> .	स्थापना का वर्ष Year of commencement of manufacturing at above work	
	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष	
	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में	
2.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो))	
2.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में	
2. 3.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो))	
2. 3.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र	
 3. 4. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है
 3. 4. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design)
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, per Main Contractor/purchaser design) Details attached at Annexure – F2.2
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, per Main Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र Design/ Research & development set-up डिजाइन / अनुसं और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उ	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, नकी विवाद क्षिप्त क्षिप्त क्षिप्त क्षिप्त क्षिप्त Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है)
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र Design/ Research & development set-up डिजाइन / अनुसं और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उ	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है।
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उर्थे योग्यता, मशीन और उपलब्ध उपकरण आदि)	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, नकी विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो)
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उत्योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी विवरण अनुलग्नक –एफ 2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो)
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificat machines & tools employed etc.) (श्रमिकों की संख्या, उत्योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details (Design/Manufacturing/Quality etc) मैनपावर विवरण	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी विवरण अनुलग्नक –एफ 2.2 पर संलग्न हीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो) Details attached at Annexure – F2.3 विवरण अनुलग्नक – F2.3 में संलग्न है।
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उत्योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी विवरण अनुलग्नक – एफ 2.2 पर संलग्न हों, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक – एफ 2.2 पर संलग्न है। (यदि लागू हो) Details attached at Annexure – F2.3 विवरण अनुलग्नक – F2.3 में संलग्न है।



0	After	sales service	set up in India in case of foreign	n suh-	A	Alakana Kanbia araw	/ 	
8.	After sales service set up in India, in case of foreign sub- vendor(Location, Contact Person, Contact details etc.) भारत				Applicable / Not applicable लागू / लागू नहीं			
		-	गापना के बाद, विदेशी उप-विक्रेता के		Dotaile atta	shad at Ammayuwa - F	. ४ विवस्मा	
			•	मामल	Details attached at Annexure – F2.4 विवरण अनुलग्नक -2.4 पर संलग्न है।			
0		-	के, संपर्क विवरण आदि)					
9.			ocess execution plan with flow stages of manufacturing from		ched at Annexure – F	2.5 ।ववरण		
		_	d product including outsourced prod	अनुलग्नक - F2	2.5में संलग्न है।			
		-	विनिर्माण प्रक्रिया निष्पादन योजना,					
	•		यदि कोई हो, सहित कच्चे माल से					
		•	ा के विभिन्न चरणों को दर्शाया गया हो					
10.			terial/Major Bought Out Item कच्चे ।	· .	Details attac	ched at Annexure – F	:2.6 विवरण	
	_	/ खरीदे हुए मुख	,			2.6में संलग्न है।		
11.		0,0	rcised during receipt of raw materia	I/BOI,		ched at Annexure – F	:2. 7 विवरण	
	in-pro	ocess , Final Te	esting, packing कच्चे माल / खरीदे हु	ए मद,		2.7 पर संलग्न है		
			रीक्षण, पैर्किंग करते समय गुणवत्ता नि					
12.		ıfacturing faci			Details attac	ched at Annexure – F	:2. <i>8</i> विवरण	
	-		ecial process facilities, material handling	-	अनुलग्नक - F2	2.8में संलग्न है।		
		•	ग्शीनों की सूची,विशेष प्रक्रिया सुर्ि 	वधाए,				
1.0		ो रख-रखाव अ • द र्वडां!tics (! i	st of testing equipment)					
13.		• • •	रा ठा एडरानापु स्पर्धानाम्सारा रीक्षण उपकरण की सूची)	Details attached at Annexure – F2.9 विवरण				
					अनुलग्नक – F2. 9 में संलग्न है।			
14.	-		process involves fabrication then	- याद	Applicable / Not applicable लागू / लागू नहीं Details attached at Annexure – F2.10 विवरण			
-			ब्रिकेशन की गई है तो-	<u> </u>				
-		• •	lders पात्र वेल्डर की सूची	अनुलग्नक - F2.10में संलग्न है। (if applicable) लागू / लागू नहीं				
			OT personnel with area of speciali हित पात्र एनडीटी कार्मिकों की सूची	(if applicabl	e) लागू / लागू नहा			
1.5			ाहत पात्र एमडाटा कामिका का सूचा d manufacturing processes with	Sub		'a	/ 	
15.			a munajuctumg processes with addresses सब-वेंडर द्वारा बाह्य स्रोतों		Applicable / Not applicable लागू / लागू नहीं			
			से करवाएं गए निर्माण प्रक्रियाओं की	•	Details attached at AnnexureF2.11 विवरण अनुलग्नक - F2.10में संलग्न है।			
	1114	211 (116(1)	रा गरवार गर्गामान प्राप्तवाजा नग	पूत्रा				
					अनुलग्नम नर.10म सलग्न हा (if applicable) (यदि लागू हो)			
16	C	lu vofenere	list including recent according	laan		e) (વાં વ ભાગૂ ફા) ched at Annexure – F		
16.	Supply reference list including recent supplies नवीनतम आपूर्ति सहित आपूर्ति संदर्भ सूची				विवरण अनुलग्नक - F2.12 में संलग्न है।			
	<u> </u>	। साहत आपूरि	त्पन तूपा		_	at given below) (नीर		
					अनुसार)	9		
Project		Customer	Supplied Item (Type/Rating/Model	PO ref	no/date पीओ	Supplied Quantity	Date of Supply	
packag परियो		Name ग्राहक	/Capacity/Size etc) आपूर्ति की गई वस्तु	_	सं. / तिथि	आपूर्ति की मात्रा	आपूर्ति की तारीख	
पारया /पैकेज	গণ।	का नाम	(प्रकार / रेटिंग / मॉडल /क्षमता /					
/ বপ্যব			आकार आदि)					
<i>17</i> .	Produ	_		dback	Attached at	annexure - F2.13 अन्	नुलग्नक F2. 3पर	
			End User Feedback उत्पाद के संतो		संलग्न है			
	प्रदशन	संबंधा फाडबेक	पत्र / प्रमाण पत्र / अंतिम उपयोगकर्ता र्फ़	।डबक				



18.	Summary of Type Test Report (Type Test	Applicable / Not applicable लागू / लागू नहीं						
	Agency, Date of testing) for the proposed							
	(similar or higher rating) प्रस्तावित उत्पाद (
	वाले) के लिए टाइप टेस्ट रिपोर्ट (टाइप टेस्ट	विवरण, रि	पोर्ट संख्या,	Details attached at Annexure – F2.14 विवरण				
	एजेंसी, जांच की तारीख) का सारांश					4में संलग्न है		
	नोट: - रिपोर्ट प्रस्तुत करने की आवश्यकता नहीं	है		_		गदि लागू हो)		
	Note:- Reports need not to be submitted			(іт аррііса	abie) (*	याद लागू हा)		
19.	Statutory / mandatory certification for th	ne propose	ed product	Applicable	le / No	t applicable लागू	[/ लागु न	नहीं नहीं
	प्रस्तावित उत्पाद के लिए वैधानिक / अनिव	ार्य प्रमाणी	करण				.\	
	·	Details attached at Annexure – F2.15						
		(if applicable) (यदि लागू हो)						
20.	Copy of ISO 9001 certificate आईएसओ 900	Attached at Annexure – F2.16 अनुलग्नक में संलग्न -						
	(if available(यदि उपलब्ध हो)	F2.1 6 है						
21.	Product technical catalogues for propose	Details attached at Annexure – F2.17 विवरण						
	प्रस्तावित मद के लिए उत्पाद तकनीकी कैटल	पलब्ध हो)			7 में संलग्न है			
Name	2:	Desig:		S	Sign:		Date:	
नाम:		पदः		Į	हस्ता		तिथि:	
				٩	क्षर:			

Company's Seal/Stamp:- कंपनी की मुहर / मोहर: -

MAUDA FGD - RIGID STEEL CONDUITS BOQ

Item Number	Item Title	Item Description	Item Quantity	Unit of Measure	Consignee ID	ZipCode	Delivery Period (In number of days)	Unit Price (Inclusive of TAX)	GST % Applicable	Brand	Model	HSN Code
1	558-15001-A	GI CONDUITS 1.6MM THK EPOXY 20MM DIA	250	MTR	SUDHIR_MOUDA_PEM	441104	210					
2	558-15002-A	GI CONDUITS,1.6MM THICK, 20MM DIA	12300	MTR	SUDHIR_MOUDA_PEM	441104	210					
3	558-15003-A	GI CONDUITS,1.6MM THICK, 25MM DIA	500	MTR	SUDHIR_MOUDA_PEM	441104	210					
4	558-15005-A	GI CONDUITS,2.0MM THICK, 50MM DIA	500	MTR	SUDHIR_MOUDA_PEM	441104	210					



PRE-QUALIFICATION REQUIRMENTS FOR RIGID STEEL CONDUITS

PE-PQ-999-558-E002

REVISION NO. 01 DATE 20/03/2017

SHEET NO. 1 OF 1

SCOPE: Supply: YES; Erection & Commissioning: NO.

1.0 Vendor should be a BIS approved manufacturer of rigid steel conduits as per IS 9537 Part II.

2.0 Availability of test reports of rigid steel conduits to establish in- house capability at manufacturer's works to carry out all routine, type & acceptance tests as per relevant IS.

3.0 Capacity of manufacturing 30 MT of rigid steel conduits per month.

4.0 Manufactured and supplied at least 80 km of rigid steel conduits in one or more orders.

5.0 Minimum two (2) nos. purchase orders for rigid steel conduits shall be submitted which should not be more than five (5) years old from the date of application for registration or date of technocommercial bid opening (as applicable) for establishing continuity in business.

NOTE:

- 1. The vendor can offer rigid steel conduits of any BIS approved make meeting criteria S.No.1 to 4 above. The vendor to furnish the following documents:
- a) Undertaking from BIS approved manufacturer of offered make to get the inspection & testing of conduits carried out at manufacturer's works.
- b) Credentials of the manufacturer of offered make to meet the PQR requirements of S no 1.0 to 4.0 above.
- c) Vendor's Credentials to meet S no 5.0.
- 2. Consideration of offer shall be subject to customer's approval of bidders, if applicable.
- 3. 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.
- 4. Any other project specific requirement shall be as per Annexure-I and bidder shall submit relevant supporting documents.
- 5. Notwithstanding anything stated above, BHEL reserves the right to assess the capabilities and capacity of the bidder/collaborators to perform the contract, should the circumstances warrant such assessment in the overall interest of BHEL.
- 6. After satisfactory fulfillment of all the above criterial requirement, offer shall be considered for further evaluation as per NIT and all the other terms of the tender.

PREPARED BY

Name: 20 03:17

DESIGNATION: (Michilate Designation: Designation: Meena Kesni GM

PRE-QUALIFICATION REQUIRMENTS FOR RIGID STEEL CONDUITS ANNEXURE-I PROJECT SPECIFIC REQUIREMENT 2X500 MW NTPC MAUDA FGD STAGE-I

NIL



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[DY MANAGER-ELECT]

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[SR. MAHAGER-ELECT]

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o=BHEL, ou=PEM,
email=sandeeplodh@bhel.in,
c=IN
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[SR DGM-ELECT]

2X500 MW NTPC MAUDA FGD STAGE-I

FOR RIGID STEEL CONDUITS

SPECIFICATION NO.: PE-TS- 444-558-E002

REVISION: 0



BHARAT HEAVY ELECTRICALS LIMITED POWER SECTOR
PROJECT ENGINEERING MANAGEMENT NOIDA, UP (INDIA) – 201301



SPEC NO. PE-TS- 444-558-E002

VOLUME NO.: II-B

SECTION: I

REV NO.: 00 DATE: 14.06.2021

SHEET : 1 OF 13

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S. NO	DESCRIPTION	NO. OF SHEETS
1	SECTION I	
	COMPLIANCE CERTIFICATE	01
	SPECIFIC TECHNICAL REQUIREMENTS	01
	DATASHEET A	01
2	SECTION II	
	STANDARD TECHNICAL REQUIREMENTS	02
	STANDARD QUALITY PLAN	03



SPEC NO. PE-TS- 444-558-E002

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COMPLIANCE CERTIFICATE

The bidder shall confirm compliance to the following by signing/ stamping this compliance certificate and furnishing same with the offer.

- 1. The scope of supply, technical details, construction features, design parameters etc. shall be as per technical specification & there are no exclusion/ deviation with regard to same
- 2. There are no deviation with respect to specification other than those furnished in the 'schedule of deviations'
- 3. Only those technical submittals which are specifically asked for in NIT to be submitted at tender stage shall be considered as part of offer. Any other submission, even if made, shall not be considered as part of offer.
- 4. Any comments/ clarifications on technical/ inspection requirements furnished as part of bidder's covering letter shall not be considered by BHEL, and bidder's offer shall be construed to be in conformance with the specification.
- 5. Any changes made by the bidder in the price schedule with respect to the description/ quantities from those given in BOQ-Cum-Price schedule of the specification shall not be considered (i.e., technical description & quantities as per specification shall prevail).

BIDDER'S STAMP & SIGNATURE	



SPEC NO. PE-TS- 444-558-E002

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SECTION - I



SPEC NO. PE-TS- 444-558-E002

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SECTION: I

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OF 13

STANDARD TECHNICAL REQUIREMENTS

SHEET

1.0 SCOPE

- 1.1 Manufacture, Inspection and Testing at Manufacturer's works, proper packing and delivery to site of rigid steel conduits conforming to this specification.
- 1.2 Technical requirements of rigid steel conduits are indicated in Data Sheet-A & Section-II.
- 1.3 The stipulation of Data Sheet-A shall prevail in case of any conflict between the stipulations of Data Sheet-A & Section-II.

2.0 BILL OF QUANTITIES

The bidder to quote for items as per price schedule attached with NIT.

3.0 DRAWINGS & DOCUMENTS TO BE SUBMITTED

- 3.1 Bidders shall furnish following documents as the part of their technical offer:
 - a) Complete signed & stamped copy of this specification.
 - b) "Deviation Schedule" with "NO Deviations" and bidder's signature and company stamp.
 - c) Unpriced Price Schedule as enclosed with NIT with 'Quoted" word against items with bidder's signature and company stamp.
- 3.2 Following documents shall be submitted after placement of order for BHEL & customer's approval:-

Sl. No.	Drawings / Document	Document Number	Document Type
	Description		
1.	Technical Data Sheet for Rigid	PE-V0-444-558-E701	Primary
	steel conduits		
2.	MQP for Galvanised & epoxy	PE-V0-444-558-E906	Primary
	coated rigid conduit		

Note:

1. Drawing Schedule for Vendors:

a. For Primary documents: R-0 within 14 days from PO & subsequent revisions within 10 days of comments received from BHEL. BHEL shall furnish comments /approval on each submission within 18 days from receipt.

4.0 PACKING

4.1 Packing shall be as per Clause 5 of Section -II.



SPEC NO. PE-TS- 444-558-E002 VOLUME NO.: II-B SECTION: I

REV NO.: 00 DATE: 14.06.2021

SHEET : 5 OF 13

DATASHEET-A

I. APPLICABLE STANDARDS & CODES

a) IS:9537 (Part I & II) Conduits for electrical installation.

b) IS:2629 Recommended practice for hot dip galvanizing on iron and steel.

c) IS:4759 Specification for hot dip zinc coatings on structural steel and allied

products

d) IS:6745 Methods for determination of mass of zinc coating on zinc coated

iron and steel articles.

e) IS:513 Cold reduced low carbon steel sheet and strip

f) IS: 10748 Hot rolled Steel strip for welded tubes and pipes

g) IS: 2633 Method for testing uniformity of coating on zinc coated articles

h) IS:6005 Code of practice for phosphating iron & steel

II. RIGID STEEL CONDUITS

S.No.	Description	Unit	Parameters value/ type
а	Make -		BIS approved
			[] As per enclosed sub-vendor list
b	Material	-	Hot/Cold rolled mild steel
С	Sizes	-	As per BOQ cum price schedule
d	Standard length	meter	3 – 5
е	Classification as per		Heavy
	mechanical properties		
f	Conduit thickness	mm	1.6 upto 25 mm dia,
	(minimum)		2.0 above 25 mm & upto 50 mm dia
g	Surface treatment	-	Hot dip galvanizing on inside & outside
			surface
h	Epoxy thickness	micron	50 (applicable for epoxy coated conduits only)

III. SURFACE TREATMEMT

а	Pre-treatment	_	As per IS 6005 prior to galvanising
b	Туре	-	Hot dip galvanizing as per IS 2629
С	Min. Thickness of zinc	microns	48 (upto 25 mm dia),
	coating		65 (above 25 mm & upto 50 mm dia)
d	Min. Weight of zinc	(gm/m2)	340 (upto 25 mm dia)
	coating		460 (above 25 mm & upto 50 mm dia)
е	Tests for galvanizing	_	a) Weight of zinc coating as per IS : 6745
			b) Thickness of zinc coating as per IS : 4759
			c) Uniformity of zinc coating as per IS : 2633
			d) Adhesion as per IS: 2629



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS- 444-558-E002

VOLUME NO.: II-B

SECTION: II

REV NO.: 00 DATE: 14.06.2021

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SECTION-II



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS- 444-558-E002 VOLUME NO.: II-B

SECTION: II

REV NO.: 00 DATE: 14.06.2021

SHEET : 7 OF 13

1.0 INTENT OF SPECIFICATION

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 up to & 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 AND 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 The material, construction, manufacture, inspection and testing of Rigid steel conduits shall conform to the latest revision of relevant standards as per Data Sheet-A.
- 2.3 In case of conflict between the applicable reference standard and this specification, the stringent requirement of the two shall govern.

3.0 TECHNICAL REQUIREMENTS

- 3.1 Rigid conduits shall generally conform to the requirements of IS: 9537 (part I & II).
- 3.2 The diameter of conduits shall be uniform throughout the length. Each end of conduit length shall be threaded. The ends of conduits shall be sealed with protective caps to prevent damage to threaded portions and entrance of moisture and foreign material.
- 3.3 The inside surface of all conduits shall be smooth and suitable for pulling insulated cables and wires without damage.
- 3.4 Technical particulars of rigid conduits are specified in Data Sheet A.

4.0 QUALITY ASSURANCE, TESTING & INSPECTION

- 4.1 Bidder shall confirm compliance with the BHEL's Standard Quality Plan (PE-QP-999-558-E001) as attached with the specification without any deviations. At contract stage, the successful bidder shall submit the Quality Plan for BHEL/ ultimate customer's approval. In case bidder has reference Quality Plan agreed with ultimate customer, same can be submitted for specific project after award of contract for BHEL/ ultimate customer's approval. There shall be no commercial implication to BHEL on account of Quality plan approval.
- 4.2 All materials shall be procured, manufactured, inspected and tested by vendor/ sub-vendor as per approved quality plan.
- 4.3 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 the specification. Charges for all these tests for all the equipments & components shall be deemed to be included



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS- 444-558-E002
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in the bid price.

4.4 In case ordered quantities are manufactured and offered for inspection in more than one lot, BHEL reserves the right to witness testing on all lots without any commercial implication to BHEL.

SHEET

5.0 PACKING

- 5.1 The material shall be packed to ensure protection against damage during transit, storage for prolonged periods and handling.
- 5.2 The ends of conduits shall be sealed with protective caps.
- 5.3 Each conduit shall be wrapped in plastic to prevent dust deposition.
- 5.4 The conduits should be aligned and stacked in bundles (a maximum of 25 pieces per bundle).
- 5.5 Each bundle shall be covered with jute fibre / thick plastic wrap for protection against extreme weather. Then, the bundle shall be tied with twin-strand mild steel wire, strong rope or steel strip.

6.0 MARKING

- 6.1 Rigid conduits shall be marked at least once on each manufacturing length, preferably 50 mm from one end, with the following:
- a) Manufacturer's name or trade mark, if any;
- b) Country of manufacture; and
- c) Nominal size of the conduits.
- d) ISI Certification Mark.

Marking may be applied by moulding, stamping, printing, adhesive label or water slide transfers.

- 6.2 Marking shall be durable and legible.
- 6.3 Marking shall be checked by inspection and by rubbing lightly the marking by hand for 15 seconds with a piece of cloth soaked with water and again for 15 seconds with a piece of cloth soaked with petroleum spirit.

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				PROJECT:				PO NO.:				
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1.0 RAW	MATERIAL/BOU	GHT OUT ITEMS		•		•		•	•	•				
1.1		HOT ROLLED STEEL STRIP	MA	VISUAL, MECH. & CHEMICAL	MFR. STD.	-	IS10748	IS10748	TEST CERT.	1	Р	٧	-	AS APPLICABLE
1.2		COLD ROLLED STEEL SHEET	MA	VISUAL, MECH. & CHEMICAL	MFR. STD.	-	IS513	IS513	TEST CERT.	V	Р	٧	-	AS APPLICABLE
2.0 ACC	EPTANCE TESTS													
2.1		DIMENSIONS	MA	MEASUREM ENT	IS 9537-II	IS 9537-II	IS:9537/ APPROVED DATA SHEET	APPROVED DATA SHEET	INSP. REPORT	V	Р	w	-	
2.2		MECH. PROPERTIES												
2.2A	RIGID STEEL CONDUITS	BENDING TEST	CR	TEST	IS 9537-II	IS 9537-II	IS 9537-II	IS 9537-II	INSP. REPORT	V	Р	W	-	
2.2B		COMPRESSION TEST	CR	TEST	IS 9537-II	IS 9537-II	IS 9537-II	IS 9537-II	INSP. REPORT	V	Р	W	-	
2.3		GALVANISATION TEST												
2.3A	Į.	UNIFORMITY OF ZINC COATING	CR	TEST	IS 9537-II	IS 9537-II	IS-2633/ APPD DS	IS-2633/ APPD DS	INSP. REPORT	V	Р	W	-	

	BHEL									
	ENGINEERIN	lG	QUALITY							
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SHEET 1 OF 3

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11	/			CUSTOMER:						O.: PE-QP-999)-558-E(001, R	:04		DATE: 23.07.2020
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	2	3	4	5	М	C/ N	1	°		9	D	М	С	N	
2.3B		MASS OF ZINC COAT.	CR	TEST	IS 9537-II	IS 9537-II	IS-6745/ APPD DS	IS-6745/ APPD D		INSP. REPORT	√	Р	w	-	
2.3C		COATING THICKNESS	CR	TEST	IS 9537-II	IS 9537-II	IS-4759/ APPD DS	IS-4759/ APPD D		INSP. REPORT	√	Р	w	_	BY ELCOMETER Refer Note 8
2.3D		EPOXY THICKNESS	МА	VISUAL/PH YSICAL	IS 9537-II	IS 9537-II	50 MICRONS	50 MICF	RONS	INSP. REPORT	1	Р	W	_	AS APPLICABLE
2.4		MARKING	CR	VISUAL/PH YSICAL	IS 9537-II	IS 9537-II	APPROVED DATA SHEET	APPROV DATA S		INSP. REPORT		Р	w	-	
		•	•	•		•	•	•		•	•				
3.0 PAC	KING														
	PACKING	Soundness of Packing against	Major	Visual	100%	100%	BHEL * approved	BHEL approve	d	Inspection report	\	Р	w	-	

NOTES:

transit damage

1. The inspection shall be carried out once for the material offered for inspection in one lot. For subsequent lots against the same project, the material can be accepted based on certificate of compliance furnished by the vendor.

document

document

- 2. Project specific QP shall be based on customer requirement. In case, any changes in QP commented by customer at contract stage shall be carried out by bidder without any implication to BHEL/ Customer.
- 3. For export jobs, BHEL technical specification for seaworthy packing for export jobs is to be followed.
- 4. Packing shall be suitable for storage at site in tropical climatic conditions. *Packing shall be done as per Clause 5 of Section -II of Technical specification.

		ВНЕ	EL			BI	BIDDER/ SUPPLIER FOR CUSTOMER REVIEW & APPROVAL			EW & APPROVAL		
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PHE		CUSTOMER:				QP No	O.: PE-QP-999-558-E0	01, R04	DATE: 23.07.2020
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- 5. Latest revision/ year of issue of all the standards (IS/ ASME/ IEC etc.) Indicated in QP shall be referred.
- 6. BHEL reserves the right for conducting repeat test if required.
- 7. After packing and prior to issue MDCC, photographs of items to be dispatched shall be sent to BHEL purchase group for review.
- 8. Thickness of zinc coating shall be the average of the determination made at each end and the middle of the article.

LEGENDS:

*RECORDS, INDENTIFIED WITH "TICK"(\(\struct \) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION,

** M: SUPPLIER/ MANUFACTURER/ SUB-SUPPLIER, C: MAIN SUPPLIER/ BHEL/ THIRD PARTY INSPECTION AGENCY, N: CUSTOMER,

P: PERFORM, W: WITNESS, V: VERIFICATION, AS APPROPRIATE

MA: MAJOR, MI: MINOR, CR: CRITICAL, D: DOCUMENTATION

	BHEL											
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	FOR CUSTOMER REVIEW & APPROVAL									
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Reviewed by:	Sign & Date	Name	Seal							
Approved by:										

Letter head of Company (<Rs. 10 Cr value)

Ref	Date
То,	
Bharat Heavy Electricals Limited PEM,	
PPEI Building, Plot No 25, Sector -16A,	
Noida (U.P)-201301	
Subject: -Certification regard	ding local content
Reference: Tender Enquiry No	
Name of Package:	
Dear Sir,	
We hereby certify that items offered by us of Name/Rate contract) meets the requirement of min NIT No dated and the Public Procuremed dated-15.06.2017, 28.05.2018, 29.05.2019, 04.06.2020 &	nimum local content in line with Cl. No of ent (Preference to Make in India), Order 2017
Local Content%	
We further confirms that details of location at which the lower works at(address	
	Yours very truly
	(authorized signatory of company)
	(firm name)

ON COMPANY LETTER HEAD

Kind Attn. Mr.

To,

Dear Sir.

This has reference 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

1. Our offer for PVC Wires for Combined Tender Enquiry (2 X 250 MW NSPCL Bhilal TPP-FGD, 2X500 MW NTPC MAUDA FGD STAGE-I, 3X200 + 3X500 MW NTPC RAMAGUNDAM TPP FGD, 3X200+3X500+1x500 MW NTPC KORBA TPP-FGD, 3X660 MW North Karanpura FGD, 3X660 MW NPGCL NABINAGAR FGD and 4X250MW BRBCL Nabinagar FGD projects), GeM Tender No. dated

2. Order no. F. No. 6/18/2019-PPD dt. 23.07.2020 issued by Ministry of Finance, Department of Expenditure Public Procurement Division. I have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India; I certify that M/s (Company Name_____ is not from such a country or, if from such a country, has been registered with the competent authority. (Remove the non-applicable) I hereby certify that M/s (Company Name) fulfil all requirements in this regard and is eligible to be considered. [where applicable, evidence of valid registration by the competent authority shall be attached1 Thanking You, Yours faithfully,

Owner, partner, CMD, Director, Authorized Signatory with proof that he/she is authorized to sign on owner's behalf

M/s _____

ANNEXURE FOR RISK & COST

1. In case of delays (beyon d the maximu m late delive ry period as per LD cl ause) in supplie s, or if there be defective su pplies or no n-fulfilment of any other terms and conditions of the Co ntract as en umerated subsequently in this clause, then, without prejudice to its right to recover any expenses, losses or damages to which the B uyer may be put to in cur or sustain by reason of the Seller/Contractor's default or b reach of Order/Contract or to suspend business dealings with the Seller/Contractor in terms of the Buyers' Guidelines for Suspension of Business Dealings as applicable from time to time, the Buyer shall also be entitled to cancel the Order/ Contract either in whole or portion thereof without compensation to Seller. On the occurrence of any of the acts/omission's mentioned below, the Buyer may if it so desi res, procure upon such terms and in such manner as deemed appropriate, plant/equipment/ stores not so delivered or others of similar description where plant/ equipment/ stores exactly complying with particulars are not, in the opinion of the Buyer (which shall be final), readily procurable, at the risk and cost of the Seller.

The Seller shall be liable to the Buyer for any excess costs incurred thereof and the Seller shall continue the performance of the Order/Contract to the extent not cancelled under the provisions of this clause. The Seller shall on no account be entitled to any gain on such repurchases. If the Bidder does not agree to this Risk Purchase clause, BHEL reserves the right to reject the bid/offer of the Bidder. The order/contract may be cancelled in whole or part thereof and Risk & Cost Clause in line with terms and conditions of PO/Contract may be invoked by the Buyer in any of the following cases:

- i. If the Seller/Contractor fails to deliver the good s or materials or any instalment thereof within the period(s) fixed for such delivery or the Seller's poor progress of the supply/services vis-à-vis delivery/execution timeline as stipulated in the contract, backlog attributable to the Seller including unexecuted portion of supply does not appear to be executable within balance period available;
- ii. delivers g oods or mat erials not of the cont racted quality and failing to adhe re to the contract specifications/execution methodology;
- iii. withdrawal from or repudiation/abandonment of the supply/services by the Seller before completion as per contract or if the Seller refuses or is unable to supply goods or materials covered by the order/Contract either in whole or in part or otherwise fails to perform the Order/Contract.
- iv. Non supply by the Seller within scheduled completion/delivery period as per contract or as extended from time to time for reasons attributable to the Seller;
- v. Termination of Contract on account of any other reason(s) attributable to the Seller.
- vi. Assignment, transfer, sub-letting of Contract with out BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
- vii. If the Seller be an individual or a Sole Proprietorship, in the event of death or insanity of the Seller.
- viii. If the Seller/Contractor being an individual or if a partnership firm thereof, shall at any time be a djudged insolvent or shall have a receivin g order for administration of his estate made against him or shall take a ny proceeding for composition under any Insolvency Act for the time being in force or make any assignment of the order/Contract or enter into any arrangement or composition with his creditors or suspend payment or if the firm dissolved under the Partnership Act;
- ix. If the Seller/Co ntractor being a Company is wound up voluntarily or by order of a Court or a Receiver, Liquidator or Manager on behalf of the debenture holders and creditors is appointed or circumstances have arisen which entitles the Court of debenture holder and creditors to appoint a receiver, liquidator or manager
- x. Non- Compliance to any contractual condition or any other default attributable to the Seller.

Such defaulting vendor/Seller shall not be eligible to participate in re-tendering conducted on account of risk purchase made due to fault of such vendor/Seller.

- 2. BHEL's right to go for Risk and Cost, Calcul ation of Risk and Cost amount & L D, recovery options to BHEL are given as under: -
 - 2.1 BHEL reserves the right to terminate the contract or withdraw portion of work and get it do ne through other agency, at the risk and cost of the contractor after due notice of a period of 14 days' by BHEL in any of the following cases:
 - i) If the Sell er/Contractor fails to deliver the go ods or materials or any in stalment there of within the period(s) fixe d for such d elivery or the Seller's poor p rogress of the su pply/services v is-a-vis delivery/execution timeline as stipulated in the Contract, backlog attributable to sell er including unexecuted portion of supply does not appear to be executable within balance available period;
 - ii) Delivers g oods o r mat erials not of the contracted quality and failing to adhe re to the contract specifications;
 - iii) Withdrawal from or repudiation/ abandonment of the supply/ services by Seller before completion as per contract or if the Seller refu ses or is unable to supply go ods or materials covered by the Order/Contract either in whole or in part or otherwise fails to perform the Order/Contract;
 - iv) Non-supply by the Seller within scheduled completion/delivery period as per Contract or as extended from time to time, for the reasons attributable to the Seller;
 - v) Termination of Contract on account of any other reason (s) attributable to Seller.
 - vi) Assignment, transfer, subletting of Contract without BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
 - vii) If the Seller be an individual or a sole proprietorship Firm, in the event of the death or insanity of the Seller;
 - viii) If the Seller/Contractor being an individual or if a firm on a partnership thereof, shall at any time, be adjudged insolvent or shall have a receiving order for administration of his estate made against him or shall take any proceeding for composition under any Insolvency Act for the time being in force or make any assignment of the Order/Contract or enter into any arrangement or composition with his creditors or suspend payment or if the firm dissolved under the Partnership Act;
 - ix) If the Seller/Contractor being a company is wound up voluntarily or by order of a Court or a Receiver, Liquidator or Manager on behalf of the debenture holders and creditors is appointed or circumstances shall have ari sen which entitles the Court of debenture holder and creditors to appoint a receiver, liquidator or manager;
 - x) Non-compliance to any contractual condition or any other default attributable to Seller.

2.1.1 Risk & Cost Amount against Balance Work:

Risk & Cost amount against balance work shall be calculated as follows:

Risk & Cost Amount= $[(A-B) + (A \times H/100)]$

Where,

A= Value of Balance scope of Work (*) as per rates of new contract

B= Value of Balance scope of Work (*) as per rates of old contract being paid to the contractor at the time of termination of contract i.e. inclusive of PVC & ORC, if any.

H = Overhead Factor to be taken as 5

In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero).

2.1.2 Balance scope of work (in case of termination of contract):

Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work for calculating risk & cost amount.

Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities.

Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities a sper issued drawings would be deemed to be contract quantities.

Substitute/ extra items whose rates have already been approved would form part of contract quantities for this purpose.

Substitute/ extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions.

However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose.

NOTE: In case portion of work is being withdrawn at risk & cost of contractor instead of termination of contract, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work' for calculating Risk & Cost amount.

2.1.3 LD against delay in executed work in case of Termination of Contract:

LD against delay in executed work shall be calculated in line NIT terms & conditions, for the delay attributable to contractor. For limiting the maximum value of LD, contract value shall be taken as Executed Value of work till termination of contract.

Method for calculation of LD against delay in executed work in case of termination of contract" is given below:

- i. Let the time period from scheduled date of start of wo rk till termination of contract excluding the period of Hold (if any) not attributable to contractor = T1
- ii. Let the value of executed work till the time of termination of contract = X
- **iii.** Let the Total Executable Value of work for which inputs/fronts were made available to contractor and were planned for execution till termination of contract = Y
- iv. Delay in executed work attributable to contractor i.e. $T2 = [1-(X/Y)] \times T1$
- v. LD shall be caculated in line with LD cause (clause 16) of the Contract for the delayattributable to contractor taking "X" as Contract Value and "T2" as period of delay attributable to contractor.

2.2 Recoveries arising out of Risk & Cost and LD or any other recoveries due from Contractor:

Without prejudice to the other means of recovery of such dues from the Seller recoveries from the Seller on whom risk

& cost has been invoked shall be made from the following:

- a) Dues available in the form of Bills payable to seller, SD, BGs against the same contract.
- b) Dues payable to seller against other contracts in the same Region/Unit/ Division of BHEL.
- c) Dues payable to seller against other contracts in the different Region/Unit/ division of BHEL.

In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against contractor.



CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्वासन MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT मुख्य संविदाकार प्रस्ताव सह मुल्यांकन रिपोर्ट

Ref No	o:					Do	ite:				
संदर्भ	संदर्भ सं.:				ति	थिः					
i.	Main	Contractor									
	मुख्य	संविदाकार									
ii.		ct परियोजना									
iii.	Packa	ge Name पैकेज						Package No	पैकेज		
	का ना	म						सं.			
iv.	Propo	sed Item/Scope o	f Sub-con	tracting उप-							
	संविदा	(अनुबंध) का प्रस्ता	वेत मद्र/ व	ायरा							
v.		covered under	Sche	dule-1				er contract cla			
	निम्नर्रि शामिर	तेखित के अंतर्गत न मद	/अनु	सूची- 1			अनुबंध	थ के अनुसार र	वंड सं	-	
			Sche	dule-2 अनुसूची	2						
vi.			•								
	If iten	n is Schedule-1 an	d propose	ed sub-vendor is							
	indige	enous, Main Cont	ractor to e	explain how the							
	contro	actual provisions	will be ful	filled	/यदि						
		नुसूची - 1 है और प्रस्त									
		मुख्य संविदाकार के धान कैसे पूरे किए ज		। हागा कि सापदा/	अनुबध						
vii.		and Address of t		sed Sub-vendor's	works /प्र	स्तावित स	ब-वेंडर	का नाम तथा	पता		
viii.		acement date/ St ान की तिथि / एल- 2							ोओ		
ix.		Description	,,,,,	Total quantity of		Quantity	prop	osed to be	Timelii	ne for	quantity requirements as
		/Size/Rating/Sco	pe of	proposed item				proposed		•	schedule & whether the
		ontracting)	मद	envisaged in the				s/Running			ib-vendor equipped with
		त्ररण (प्रकार / आका प्राचंध का समस्य	र / राटग	package (Nos/ Running Meters				<i>/Tons etc)</i> क्रेता (संख्या /			pacity to supply proposed y in time
	/ उप-उ	मनुबंध का दायरा)		Tons etc) इस पैवे			_	/ किलोग्राम /			, मय सूची के अनुसार मात्रा
				परिकल्पित प्रस्तार्ग				दी जाने वाली			के लिए समय-सीमा और क्या
				की कुल मात्रा (संख	ज्या /	मात्रा ′			प्रस्तावि	त उप-ि	वेक्रेता समय पर प्रस्तावित मांग
				क्रियाशील मीटर /						ा की आ	पूर्ति करने में पूरी तरह से सक्षम
				किलोग्राम / टन अ	ादि)	1			है		
									<u> </u>		
x.	Suppl	y experience of t	he propo	sed sub-vendor ((including	supplies	to M	ain Contracto	or, if an	y) for	similar item/scope of sub-
	contro	acting, for last 3 y	ears (Not	te:- Only relevant	experien	nce detail:	s w.r.t.	proposed ite	em/scop	e of su	bcontracting to be brought
	out he	ere) पिछले 3 वर्षों	के लिए	उप-अनुबंध के सम	ान मद /	दायरे के ि	लेए प्रस	तावित सब-वे	ंडर (मुख	व्य संवि	दाकार हेतु आपूर्ति, यदि कोई
	हो, सहित) का आपूर्ति अनुभव (नोट: - उप-अनुबंध के प्रस्तावित मद / दायरे के संबंध में केवल प्रासंगिक अनुभव के विवरण का उल्लेख हो										



CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्वासन MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT मुख्य संविदाकार प्रस्ताव सह मुल्यांकन रिपोर्ट

	Project/Package परियोजना/पैकेज	Customer Name ग्राहर का नाम	क्र Supplied Item (Type/Rating/Model /Capacity/Size etc आपूर्तित मद (प्रकार/रेटिंग /मॉडल /क्षमता/आकार आदि)	no/date पीओ संदर्भ	Supplied Quantity आपूर्ति की मात्रा	Date of Supply आपूर्ति की तिथि			
supply पास ३	We confirm that as per our assessment, the proposed sub-vendor has requisite capabilities & supply experience and is suitable for supplying the proposed item/scope of sub-contracting/हम अपने आकलन के अनुसार इस बात की पुष्टि करते हैं कि, प्रस्तावित उप-विक्रेता के पास अपेक्षित क्षमता और आपूर्ति करने का अनुभव है और उप-अनुबंध के दायरे /प्रस्तावित मद की आपूर्ति के लिए उपयुक्त है।								
Name नाम:	;	Desig: पद:	Contact No: दूरभाष सं.:	Sign: हस्ताक्षर:		Date: तिथि:			

Company's Seal/Stamp:- कंपनी का मुहर:-



CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्ववासन SUB-VENDOR QUESTIONNAIRE/ **सब-वेंडर प्रश्नावली**

i.	Item/Scope of Sub-contracting	
	उप-संविदा(अनुबंध) का मद/ दायरा	
ii.	Address of the registered office पंजीकृत कार्यालय का पता	Details of Contact Person संपर्क व्यक्ति का विवरण
		(a)
		(Name, Designation, Mobile, Email) (नाम, पदनाम,
		मोबाइल, ईमेल)
iii.	Name and Address of the proposed Sub-vendor's works	Details of Contact Person: संपर्क व्यक्ति का विवरण
	where item is being manufactured प्रस्तावित उप-विक्रेता के	
	कार्यों का नाम और पता, जहां मद का निर्माण किया जा रहा है	(Name, Designation, Mobile, Email) (नाम, पदनाम,
		मोबाइल, ईमेल)
		1
iv.	Annual Production Capacity for proposed item/scope of s	sub-
	contracting उप-संविदा(अनुबंध) के प्रस्तावित मद / दायरे	
	लिए वार्षिक उत्पादन क्षमता	
v.	Annual production for last 3 years for proposed item/sc	оре
	of sub-contracting उप-संविदा(अनुबंध) के प्रस्तावित मद / द	गयरे
	के लिए पिछले 3 वर्षों का वार्षिक उत्पादन	
vi.	Details of proposed works प्रस्तावित कार्यों का	ा विवरण
1.	Year of establishment of present works वर्तमान फैक्टरी की स्थापना का वर्ष	7
<i>1</i> .	स्थापना का वर्ष Year of commencement of manufacturing at above work	
	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष	
	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में	
2.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो))	
2.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में	
2. 3.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो))	
2. 3.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र	
 3. 4. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है
 3. 4. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design)
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, per Main Contractor/purchaser design) Details attached at Annexure – F2.2
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, per Main Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र Design/ Research & development set-up डिजाइन / अनुसं और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उ	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, नकी विवाद क्षिप्त क्षिप्त क्षिप्त क्षिप्त क्षिप्त Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है)
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र Design/ Research & development set-up डिजाइन / अनुसं और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उ	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है।
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उर्थे योग्यता, मशीन और उपलब्ध उपकरण आदि)	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, नकी विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो)
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उत्योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी विवरण अनुलग्नक –एफ 2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो)
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificat machines & tools employed etc.) (श्रमिकों की संख्या, उत्योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details (Design/Manufacturing/Quality etc) मैनपावर विवरण	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी विवरण अनुलग्नक –एफ 2.2 पर संलग्न हीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो) Details attached at Annexure – F2.3 विवरण अनुलग्नक – F2.3 में संलग्न है।
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उत्योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी विवरण अनुलग्नक – एफ 2.2 पर संलग्न हों, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक – एफ 2.2 पर संलग्न है। (यदि लागू हो) Details attached at Annexure – F2.3 विवरण अनुलग्नक – F2.3 में संलग्न है।



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0	After	sales service	set up in India, in case of foreigi	n suh-	A	Alak madi adala arru	/ 	
8.	vendor(Location, Contact Person, Contact details etc.) भारत				Applicable / Not applicable लागू / लागू नहीं			
		-	<i>जातिवटा महाउठाा, Contact details etc.,</i> ापना के बाद, विदेशी उप-विक्रेता के		Dotaile atta	shed at Amneyume - F	. ४ विवस्मा	
				Details attached at Annexure – F2.4 विवरण अनुलग्नक -2.4 पर संलग्न है।				
0		-	,	ah aust				
9.			ocess execution plan with flow stages of manufacturing from			ched at Annexure – F	2.5 ।ववरण	
		_	f product including outsourced product		अनुलग्नक - F2	2.5में संलग्न है।		
		-	विनिर्माण प्रक्रिया निष्पादन योजना ,	-				
	•		यदि कोई हो, सहित कच्चे माल से					
			ा के विभिन्न चरणों को दर्शाया गया हो					
10.			terial/Major Bought Out Item कच्चे ।		Details atta	ched at Annexure – F	:2.6 विवरण	
10.	_	/ खरीदे हुए मुख	,			2.6में संलग्न है।	2.0 ((() (
11.		0,0	rcised during receipt of raw materia	I/BOI.		ched at Annexure – F	:२ ७ विवरण	
11.		-	esting, packing कच्चे माल / खरीदे हु			2.7 पर संलग्न है	2.7 199(9	
			रीक्षण, पैकिंग करते समय गुणवत्ता नि		जगुराक्षमा - ह	2.7 4 < ((() %)		
12.		ıfacturing faci			Details atta	ched at Annexure – F	2.8 विवरण	
	-		ecial process facilities, material handlin	-	अनुलग्नक - F2	2.8में संलग्न है।		
		•	ग्शीनों की सूची ,विशेष प्रक्रिया सुर्ि 	वधाए,				
		ो रख-रखाव अ 	,					
13.			st of testing equipment) रीक्षण उपकरण की सूची)		Details attached at Annexure – F2.9 विवरण			
					अनुलग्नक – F2. 9 में संलग्न है।			
14.	-		process involves fabrication then	- याद	Applicable / Not applicable लागू / लागू नहीं			
-			ब्रिकेशन की गई है तो-		Details attached at Annexure – F2.10 विवरण			
-			lders पात्र वेल्डर की सूची		अनुलग्नक - F2.10में संलग्न है।			
			OT personnel with area of speciali	zation	(if applicable) लागू / लागू नहीं			
			हित पात्र एनडीटी कार्मिकों की सूची	. C. I.				
15.			d manufacturing processes with		Applicable / Not applicable लागू / लागू नहीं			
			nddresses सब-वेंडर द्वारा बाह्य स्रोतों	•				
	नामः	भार पत साहत)	से करवाएं गए निर्माण प्रक्रियाओं की	सूच।	Details attached at AnnexureF2.11 विवरण अनुलग्नक - F2.10में संलग्न है।			
					(if applicable) (यदि लागू हो)			
16.			list including recent supplies नर्व	नितम		ched at Annexure – F		
	आपूरि	र्ते सहित आपूर्ति	सदभ सूची		_	ाग्नक - F2.12 में संलग्न		
			(as per form अनुसार)	at given below) (नीरे	त्र । दए गए प्रारूप क			
Project		Customer	Supplied Item (Type/Rating/Model	PO ref	no/date पीओ	Supplied Quantity	Date of Supply	
packag		Name ग्राहक	/Capacity/Size etc) आपूर्ति की गई वस्तु	-	सं. / तिथि	आपूर्ति की मात्रा	आपूर्ति की तारीख	
परियो /गैकेन	जन⊺	का नाम	(प्रकार / रेटिंग / मॉडल /क्षमता /	,,,,,,,				
/पैकेज			आकार आदि)					
<i>17</i> .	Produ	-		dback	Attached at	annexure - F2.13 अन्	नुलग्नक F2. 3पर	
			End User Feedback उत्पाद के संतो		संलग्न है			
	प्रदर्शन संबंधी फीडबैक पत्र / प्रमाण पत्र / अंतिम उपयोगकर्ता फ़ीडबैक							



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18.	Summary of Type Test Report (Type Test	Applicable / Not applicable लागू / लागू नहीं						
	Agency, Date of testing) for the proposed	d product			•	.,		
	(similar or higher rating) प्रस्तावित उत्पाद (एक समान य	ग उच्च रेटिंग					
	वाले) के लिए टाइप टेस्ट रिपोर्ट (टाइप टेस्ट	विवरण, रि	पोर्ट संख्या,	Details at	ttached	d at Annexure –	F2.14 वि	वरण
	एजेंसी, जांच की तारीख) का सारांश					1में संलग्न है		
	नोट: - रिपोर्ट प्रस्तुत करने की आवश्यकता नहीं	है		_		गिरास्त्र ह गदि लागू हो)		
	Note:- Reports need not to be submitted			(іт аррііса	abie) (*	गाद लागू हा)		
19.	Statutory / mandatory certification for th	ne propose	ed product	Applicable	le / No	t applicable लागू	/ लागु न	नहीं नहीं
	प्रस्तावित उत्पाद के लिए वैधानिक / अनिव	ार्य प्रमाणी	करण				` ` `	
	·			Details at	ttached	d at Annexure –	F2.15	
				(if applicable) (यदि लागू हो)				
20.	Copy of ISO 9001 certificate आईएसओ 900	01 प्रमाण प	गत्र की प्रति	Attached at Annexure – F2.16 अनुलग्नक में संलग्न -				
	(if available(यदि उपलब्ध हो)			F2.1 6 है				
21.	Product technical catalogues for propose	d item (if	available)	Details attached at Annexure – F2.17 विवरण				
	प्रस्तावित मद के लिए उत्पाद तकनीकी कैटल	ॉग (यदि उ	पलब्ध हो)			7 में संलग्न है		
Name	2:	Desig:		S	Sign:		Date:	
नाम:		पदः		Į	हस्ता		तिथि:	
				٩	क्षर:			

Company's Seal/Stamp:- कंपनी की मुहर / मोहर: -

NPGC NABINAGAR FGD - RIGID STEEL CONDUITS BOQ

Item Number	Item Title	Item Description	Item Quantity	Unit of Measure	Consignee ID	ZipCode	Delivery Period (In number of days)	Unit Price (Inclusive of TAX)	GST % Applicable	Brand	Model	HSN Code
1	558-15001-A	GI CONDUITS,1.6MM THK EPOXY 20MM DIA	500	MTR	ravi_nabinagar	824303	210					
2	558-15002-A	GI CONDUITS,1.6MM THICK, 20MM DIA	15000	MTR	ravi_nabinagar	824303	210					
3	558-15003-A	GI CONDUITS,1.6MM THICK, 25MM DIA	500	MTR	RAVI_NABINAGAR	824303	210					
4	558-15005-A	GI CONDUITS,2.0MM THICK, 50MM DIA	120	MTR	RAVI_NABINAGAR	824303	210					

3x660 MW NPGCPL NABINAGAR STPP (FGD PKG)

TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPECIFICATION NO.: PE-TS- 457-558-E002

REVISION: 0



BHARAT HEAVY ELECTRICALS LIMITED POWER SECTOR PROJECT ENGINEERING MANAGEMENT NOIDA, UP (INDIA) – 201301

37148<mark>8/2021/PS-PEM-EL</mark>



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS- 457-558-E002 VOLUME NO.: II-B

SECTION: I

REV NO.: 00 DATE: 14.07.2021

SHEET : 1 OF 11

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	SPECIFIC TECHNICAL REQUIREMENTS	01
	DATASHEET A	01
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	STANDARD TECHNICAL REQUIREMENTS	02
	STANDARD QUALITY PLAN	03



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS- 457-558-E002
VOLUME NO.: II-B
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COMPLIANCE CERTIFICATE

The bidder shall confirm compliance to the following by signing/ stamping this compliance certificate and furnishing same with the offer.

- 1. The scope of supply, technical details, construction features, design parameters etc. shall be as per technical specification & there are no exclusion/deviation with regard to same
- 2. There are no deviation with respect to specification other than those furnished in the 'schedule of deviations'
- 3. Only those technical submittals which are specifically asked for in NIT to be submitted at tender stage shall be considered as part of offer. Any other submission, even if made, shall not be considered as part of offer.
- 4. Any comments/ clarifications on technical/ inspection requirements furnished as part of bidder's covering letter shall not be considered by BHEL, and bidder's offer shall be construed to be in conformance with the specification.
- 5. Any changes made by the bidder in the price schedule with respect to the description/ quantities from those given in BOQ-Cum-Price schedule of the specification shall not be considered (i.e., technical description & quantities as per specification shall prevail).

 BIDDER'S STAMP & SIGNATURE



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS- 457-558-E002 VOLUME NO.: II-B

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SECTION - I



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS- 457-558-E002 VOLUME NO.: II-B

SECTION: I

REV NO.: 00 DATE: 14.07.2021

SHEET : 4 OF 11

SPECIFIC TECHNICAL REQUIREMENTS

1.0 SCOPE

- 1.1 Manufacture, Inspection and Testing at Manufacturer's works, proper packing and delivery to site of rigid steel conduits conforming to this specification.
- 1.2 Technical requirements of rigid steel conduits are indicated in Data Sheet-A & Section-II.
- 1.3 The stipulation of Data Sheet-A shall prevail in case of any conflict between the stipulations of Data Sheet-A & Section-II.

2.0 BILL OF QUANTITIES

The bidder to quote for items as per price schedule attached with NIT.

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 item(s)/package will be supplied free of cost in most reasonable time."

3.0 DRAWINGS & DOCUMENTS TO BE SUBMITTED

- 3.1 Bidders shall furnish following documents as the part of their technical offer:
 - a) Complete signed & stamped copy of this specification.
 - b) "Deviation Schedule" with "NO Deviations" and bidder's signature and company stamp.
 - c) Unpriced Price Schedule as enclosed with NIT with 'Quoted" word against items with bidder's signature and company stamp.
- 3.2 Document submission / resubmission schedule after placement of order shall be as per NIT.

4.0 PACKING

4.1 Packing shall be as per Clause 5 of Section -II.



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

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DATASHEET-A

I. APPLICABLE STANDARDS & CODES

a) IS:9537 (Part I & II) Conduits for electrical installation.

b) IS:2629 Recommended practice for hot dip galvanizing on iron and steel.

c) IS:4759 Specification for hot dip zinc coatings on structural steel and allied

products

d) IS:6745 Methods for determination of mass of zinc coating on zinc coated

iron and steel articles.

e) IS:513 Cold reduced low carbon steel sheet and strip

f) IS: 10748 Hot rolled Steel strip for welded tubes and pipes

g) IS: 2633 Method for testing uniformity of coating on zinc coated articles

h) IS:6005 Code of practice for phosphating iron & steel

II. RIGID STEEL CONDUITS

S.No.	Description	Unit	Parameters value/ type
а	Make	-	BIS approved
			[] As per enclosed sub-vendor list
b	Material	-	Hot/Cold rolled mild steel
С	Sizes	-	As per BOQ cum price schedule
d	Standard length	meter	3 – 5
е	Classification as per		Heavy
	mechanical properties		
f	Conduit thickness	mm	1.6 upto 25 mm dia,
	(minimum)		2.0 above 25 mm & upto 50 mm dia
g	Surface treatment	-	Hot dip galvanizing on inside & outside
			surface
h	Epoxy thickness	micron	50 (applicable for epoxy coated conduits only)

III. SURFACE TREATMEMT

а	Pre-treatment	_	As per IS 6005 prior to galvanising
b	Туре	-	Hot dip galvanizing as per IS 2629
С	Min. Thickness of zinc	microns	48 (upto 25 mm dia),
	coating		65 (above 25 mm & upto 50 mm dia)
d	Min. Weight of zinc	(gm/m2)	
	coating		460 (above 25 mm & upto 50 mm dia)
е	Tests for galvanizing	_	a) Weight of zinc coating as per IS : 6745
			b) Thickness of zinc coating as per IS : 4759
			c) Uniformity of zinc coating as per IS : 2633
			d) Adhesion as per IS: 2629

37148<mark>8/2021/PS-PEM-EL</mark>



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS- 457-558-E002 VOLUME NO.: II-B

SECTION: II

REV NO.: 00 DATE: 14.07.2021

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SECTION-II



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS- 457-558-E002 VOLUME NO.: II-B SECTION: II REV NO.: 00 DATE: 14.07.2021 SHEET

OF 11

1.0 INTENT OF SPECIFICATION

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 up to & 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 AND 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 The material, construction, manufacture, inspection and testing of Rigid steel conduits shall conform to the latest revision of relevant standards as per Data Sheet-A.
- 2.3 In case of conflict between the applicable reference standard and this specification, the stringent requirement of the two shall govern.

3.0 TECHNICAL REQUIREMENTS

- 3.1 Rigid conduits shall generally conform to the requirements of IS: 9537 (part I & II).
- 3.2 The diameter of conduits shall be uniform throughout the length. Each end of conduit length shall be threaded. The ends of conduits shall be sealed with protective caps to prevent damage to threaded portions and entrance of moisture and foreign material.
- 3.3 The inside surface of all conduits shall be smooth and suitable for pulling insulated cables and wires without damage.
- 3.4 Technical particulars of rigid conduits are specified in Data Sheet A.

4.0 QUALITY ASSURANCE, TESTING & INSPECTION

- 4.1 Bidder shall confirm compliance with the BHEL's Standard Quality Plan (PE-QP-999-558-E001) as attached with the specification without any deviations. At contract stage, the successful bidder shall submit the Quality Plan for BHEL/ ultimate customer's approval. In case bidder has reference Quality Plan agreed with ultimate customer, same can be submitted for specific project after award of contract for BHEL/ ultimate customer's approval. There shall be no commercial implication to BHEL on account of Quality plan approval.
- 4.2 All materials shall be procured, manufactured, inspected and tested by vendor/ sub-vendor as per approved quality plan.
- 4.3 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 the specification. Charges for all these tests for all the equipments & components shall be deemed to be included



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS- 457-558-E002

VOLUME NO.: II-B

SECTION: II

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in the bid price.

4.4 In case ordered quantities are manufactured and offered for inspection in more than one lot, BHEL reserves the right to witness testing on all lots without any commercial implication to BHEL.

5.0 PACKING

- 5.1 The material shall be packed to ensure protection against damage during transit, storage for prolonged periods and handling.
- 5.2 The ends of conduits shall be sealed with protective caps.
- 5.3 Each conduit shall be wrapped in plastic to prevent dust deposition.
- 5.4 The conduits should be aligned and stacked in bundles (a maximum of 25 pieces per bundle).
- 5.5 Each bundle shall be covered with jute fibre / thick plastic wrap for protection against extreme weather. Then, the bundle shall be tied with twin-strand mild steel wire, strong rope or steel strip.

6.0 MARKING

- 6.1 Rigid conduits shall be marked at least once on each manufacturing length, preferably 50 mm from one end, with the following:
- a) Manufacturer's name or trade mark, if any;
- b) Country of manufacture; and
- c) Nominal size of the conduits.
- d) ISI Certification Mark.

Marking may be applied by moulding, stamping, printing, adhesive label or water slide transfers.

- 6.2 Marking shall be durable and legible.
- 6.3 Marking shall be checked by inspection and by rubbing lightly the marking by hand for 15 seconds with a piece of cloth soaked with water and again for 15 seconds with a piece of cloth soaked with petroleum spirit.

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11	/			CUSTOMER:					QP No	O.: PE-QP-999	-558-E	001, R	R04		DATE: 23.07.2020
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	2	3	4	5	М	C/ N		0		9	D	М	С	N	
1.0 RAV	V MATERIAL/BOU	GHT OUT ITEMS													_
1.1		HOT ROLLED STEEL STRIP	MA	VISUAL, MECH. & CHEMICAL	MFR. STD.	-	IS10748	IS107	'48	TEST CERT.	V	Р	V	-	AS APPLICABLE
1.2		COLD ROLLED STEEL SHEET	MA	VISUAL, MECH. & CHEMICAL	MFR. STD.	-	IS513	IS51	3	TEST CERT.	V	Р	V	-	AS APPLICABLE
2.0 ACC	EPTANCE TESTS														
2.1		DIMENSIONS	MA	MEASUREM ENT	IS 9537-II	IS 9537-II	IS:9537/ APPROVED DATA SHEET	APPROV DATA SI		INSP. REPORT	1	Р	W	-	
2.2		MECH. PROPERTIES													
2.2A	RIGID STEEL CONDUITS	BENDING TEST	CR	TEST	IS 9537-II	IS 9537-II	IS 9537-II	IS 9537-	II	INSP. REPORT	√	Р	W	-	
2.2B		COMPRESSION TEST	CR	TEST	IS 9537-II	IS 9537-II	IS 9537-II	IS 9537-	ll	INSP. REPORT	√	Р	W	-	
2.3		GALVANISATION TEST													
2.3A		UNIFORMITY OF ZINC COATING	CR	TEST	IS 9537-II	IS 9537-II	IS-2633/ APPD DS	IS-2633/ APPD DS	S	INSP. REPORT	√	Р	W	-	
		ВНЕГ				BIDDER	SUPPLIER	\neg		FOR CUST	OMER	REVII	EW &	APPE	ROVAL

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RITESH **KUMAR** JAISWAL Name

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Approved

by:

Sign & Date

Name

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MANUFACTURER/

ENGINEERING

Name

ISHY SPROARA/HPDFTN

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ı		3	4	5	M	C/	N	1			9	D	М	С	N			
2.3B		MASS OF ZINC COAT.	CR	TEST	IS 9537-II	IS 9	537-II	IS-6745/ APPD DS	IS-6745/ APPD DS	3	INSP. REPORT	1	Р	w	-			
2.3C		COATING THICKNESS	CR	TEST	IS 9537-II	IS 95	537-II	IS-4759/ APPD DS	IS-4759/ APPD D	3	INSP. REPORT	V	Р	W	-	BY ELCOMETER Refer Note 8		
2.3D		EPOXY THICKNESS	MA	VISUAL/PH YSICAL	IS 9537-II	IS 95	537-II	50 MICRONS	50 MICR	ONS	INSP. REPORT	V	Р	w	-	AS APPLICABLE		
2.4		MARKING	CR	VISUAL/PH YSICAL	IS 9537-II	IS 95	537-II	APPROVED DATA SHEET	APPRO\ DATA SI		INSP. REPORT		P	w	-			
3.0 PAC	KING																	
	PACKING	Soundness of Packing against transit damage	Major	Visual	100%	10	00%	BHEL * approved document	BHEL approved documer		Inspection report	√	Р	W	-			
	-	Soundness of Packing against						SHEET BHEL * approved	BHEL approved	ı	Inspection	√			 -			

NOTES:

- 1. The inspection shall be carried out once for the material offered for inspection in one lot. For subsequent lots against the same project, the material can be accepted based on certificate of compliance furnished by the vendor.
- 2. Project specific QP shall be based on customer requirement. In case, any changes in QP commented by customer at contract stage shall be carried out by bidder without any implication to BHEL/ Customer.
- 3. For export jobs, BHEL technical specification for seaworthy packing for export jobs is to be followed.
- 4. Packing shall be suitable for storage at site in tropical climatic conditions. *Packing shall be done as per Clause 5 of Section -II of Technical specification.

		ВНЕ	EL			BIDDER/ SUPPLIER			FOR CUSTOMER REVIEW & APPROVAL						
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- 5. Latest revision/ year of issue of all the standards (IS/ ASME/ IEC etc.) Indicated in QP shall be referred.
- 6. BHEL reserves the right for conducting repeat test if required.
- 7. After packing and prior to issue MDCC, photographs of items to be dispatched shall be sent to BHEL purchase group for review.
- 8. Thickness of zinc coating shall be the average of the determination made at each end and the middle of the article.

LEGENDS:

*RECORDS, INDENTIFIED WITH "TICK"(\(d\)) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION,

** M: SUPPLIER/ MANUFACTURER/ SUB-SUPPLIER, C: MAIN SUPPLIER/ BHEL/ THIRD PARTY INSPECTION AGENCY, N: CUSTOMER,

P: PERFORM, W: WITNESS, V: VERIFICATION, AS APPROPRIATE

MA: MAJOR, MI: MINOR, CR: CRITICAL, D: DOCUMENTATION

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PRE-QUALIFICATION REQUIRMENTS FOR RIGID STEEL CONDUITS

PE-PQ-999-558-E002

REVISION NO. 01 DATE 20/03/2017

SHEET NO. 1 OF 1

ITEMS	: RIGID STEEL CONDUITS									
SCOPE	SCOPE: Supply: YES; Erection & Commissioning: NO.									
1.0	Vendor should be a BIS approved manufacturer of rigid steel conduits as per IS 9537 Part II.									
2.0	Availability of test reports of rigid steel conduits to establish in- house capability at manufacturer's works to carry out all routine, type & acceptance tests as per relevant IS.									
3.0	Capacity of manufacturing 30 MT of rigid steel conduits per month.									
4.0	Manufactured and supplied at least 80 km of rigid steel conduits in one or more orders.									
5.0	Minimum two (2) nos. purchase orders for rigid steel conduits shall be submitted which should not be more than five (5) years old from the date of application for registration or date of technocommercial bid opening (as applicable) for establishing continuity in business.									

NOTE:

- 1. The vendor can offer rigid steel conduits of any BIS approved make meeting criteria S.No.1 to 4 above. The vendor to furnish the following documents:
- a) Undertaking from BIS approved manufacturer of offered make to get the inspection & testing of conduits carried out at manufacturer's works.
- b) Credentials of the manufacturer of offered make to meet the PQR requirements of S no 1.0 to 4.0 above.
- c) Vendor's Credentials to meet S no 5.0.
- 2. Consideration of offer shall be subject to customer's approval of bidders, if applicable.
- 3. 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.
- 4. Any other project specific requirement shall be as per Annexure-I and bidder shall submit relevant supporting documents.
- 5. Notwithstanding anything stated above, BHEL reserves the right to assess the capabilities and capacity of the bidder/collaborators to perform the contract, should the circumstances warrant such assessment in the overall interest of BHEL.
- 6. After satisfactory fulfillment of all the above criterial requirement, offer shall be considered for further cvaluation as per NIT and all the other terms of the tender.

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PRE-QUALIFICATION REQUIRMENTS FOR RIGID STEEL CONDUITS ANNEXURE-I

PROJECT SPECIFIC REQUIREMENT

3x660 MW NPGCPL NABINAGAR STPP (FGD PKG)

NIL

SUJIT KUMAR SETHY

[DY MANAGER-ELECT]

AYAN SAHA

[SR. MAHAGER-ELECT]

SANDEEP LODH

[SR DGM-ELECT]

DEBASISA RATH

[AGM&DH-ELECT]

Letter head of Company (<Rs. 10 Cr value)

Ref	Date
То,	
Bharat Heavy Electricals Limited PEM,	
PPEI Building, Plot No 25, Sector -16A,	
Noida (U.P)-201301	
Subject: -Certification regard	ding local content
Reference: Tender Enquiry No	
Name of Package:	
Dear Sir,	
We hereby certify that items offered by us of Name/Rate contract) meets the requirement of min NIT No dated and the Public Procuremed dated-15.06.2017, 28.05.2018, 29.05.2019, 04.06.2020 &	nimum local content in line with Cl. No of ent (Preference to Make in India), Order 2017
Local Content%	
We further confirms that details of location at which the lower works at(address	
	Yours very truly
	(authorized signatory of company)
	(firm name)

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

Kind Attn. Mr.
Dear Sir,
This has reference to:
1. Our offer for PVC Wires for Combined Tender Enquiry (2 X 250 MW NSPCL Bhilal TPP-FGD, 2X500 MW NTPC MAUDA FGD STAGE-I, 3X200 + 3X500 MW NTPC RAMAGUNDAM TPP FGD, 3X200+3X500+1x500 MW NTPC KORBA TPP-FGD, 3X660 MW North Karanpura FGD, 3X660 MW NPGCL NABINAGAR FGD and 4X250MW BRBCL Nabinagar FGD projects), GeM Tender No
2. Order no. F. No. 6/18/2019-PPD dt. 23.07.2020 issued by Ministry of Finance, Department of Expenditure Public Procurement Division.
I have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India; I certify that M/s (Company Name) is not from such a country or , if from such a country, has been registered with the competent authority. (Remove the non-applicable)
I hereby certify that M/s (Company Name) fulfil all requirements in this regard and is eligible to be considered.
[where applicable, evidence of valid registration by the competent authority shall be attached]
Thanking You, Yours faithfully,
Owner, partner, CMD, Director, Authorized Signatory with proof that he/she is authorized to sign on owner's behalf
M/s

ANNEXURE FOR RISK & COST

1. In case of delays (beyon d the maximu m late delive ry period as per LD cl ause) in supplie s, or if there be defective su pplies or no n-fulfilment of any other terms and conditions of the Co ntract as en umerated subsequently in this clause, then, without prejudice to its right to recover any expenses, losses or damages to which the B uyer may be put to in cur or sustain by reason of the Seller/Contractor's default or b reach of Order/Contract or to suspend business dealings with the Seller/Contractor in terms of the Buyers' Guidelines for Suspension of Business Dealings as applicable from time to time, the Buyer shall also be entitled to cancel the Order/ Contract either in whole or portion thereof without compensation to Seller. On the occurrence of any of the acts/omission's mentioned below, the Buyer may if it so desi res, procure upon such terms and in such manner as deemed appropriate, plant/equipment/ stores not so delivered or others of similar description where plant/ equipment/ stores exactly complying with particulars are not, in the opinion of the Buyer (which shall be final), readily procurable, at the risk and cost of the Seller.

The Seller shall be liable to the Buyer for any excess costs incurred thereof and the Seller shall continue the performance of the Order/Contract to the extent not cancelled under the provisions of this clause. The Seller shall on no account be entitled to any gain on such repurchases. If the Bidder does not agree to this Risk Purchase clause, BHEL reserves the right to reject the bid/offer of the Bidder. The order/contract may be cancelled in whole or part thereof and Risk & Cost Clause in line with terms and conditions of PO/Contract may be invoked by the Buyer in any of the following cases:

- i. If the Seller/Contractor fails to deliver the good s or materials or any instalment thereof within the period(s) fixed for such delivery or the Seller's poor progress of the supply/services vis-à-vis delivery/execution timeline as stipulated in the contract, backlog attributable to the Seller including unexecuted portion of supply does not appear to be executable within balance period available;
- ii. delivers g oods or mat erials not of the cont racted quality and failing to adhe re to the contract specifications/execution methodology;
- iii. withdrawal from or repudiation/abandonment of the supply/services by the Seller before completion as per contract or if the Seller refuses or is unable to supply goods or materials covered by the order/Contract either in whole or in part or otherwise fails to perform the Order/Contract.
- iv. Non supply by the Seller within scheduled completion/delivery period as per contract or as extended from time to time for reasons attributable to the Seller;
- v. Termination of Contract on account of any other reason(s) attributable to the Seller.
- vi. Assignment, transfer, sub-letting of Contract with out BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
- vii. If the Seller be an individual or a Sole Proprietorship, in the event of death or insanity of the Seller.
- viii. If the Seller/Contractor being an individual or if a partnership firm thereof, shall at any time be a djudged insolvent or shall have a receivin g order for administration of his estate made against him or shall take a ny proceeding for composition under any Insolvency Act for the time being in force or make any assignment of the order/Contract or enter into any arrangement or composition with his creditors or suspend payment or if the firm dissolved under the Partnership Act;
- ix. If the Seller/Co ntractor being a Company is wound up voluntarily or by order of a Court or a Receiver, Liquidator or Manager on behalf of the debenture holders and creditors is appointed or circumstances have arisen which entitles the Court of debenture holder and creditors to appoint a receiver, liquidator or manager
- x. Non- Compliance to any contractual condition or any other default attributable to the Seller.

Such defaulting vendor/Seller shall not be eligible to participate in re-tendering conducted on account of risk purchase made due to fault of such vendor/Seller.

- 2. BHEL's right to go for Risk and Cost, Calcul ation of Risk and Cost amount & L D, recovery options to BHEL are given as under: -
 - 2.1 BHEL reserves the right to terminate the contract or withdraw portion of work and get it do ne through other agency, at the risk and cost of the contractor after due notice of a period of 14 days' by BHEL in any of the following cases:
 - i) If the Sell er/Contractor fails to deliver the go ods or materials or any in stalment there of within the period(s) fixe d for such d elivery or the Seller's poor p rogress of the su pply/services v is-a-vis delivery/execution timeline as stipulated in the Contract, backlog attributable to sell er including unexecuted portion of supply does not appear to be executable within balance available period;
 - ii) Delivers g oods o r mat erials not of the contracted quality and failing to adhe re to the contract specifications;
 - iii) Withdrawal from or repudiation/ abandonment of the supply/ services by Seller before completion as per contract or if the Seller refu ses or is unable to supply go ods or materials covered by the Order/Contract either in whole or in part or otherwise fails to perform the Order/Contract;
 - iv) Non-supply by the Seller within scheduled completion/delivery period as per Contract or as extended from time to time, for the reasons attributable to the Seller;
 - v) Termination of Contract on account of any other reason (s) attributable to Seller.
 - vi) Assignment, transfer, subletting of Contract without BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
 - vii) If the Seller be an individual or a sole proprietorship Firm, in the event of the death or insanity of the Seller;
 - viii) If the Seller/Contractor being an individual or if a firm on a partnership thereof, shall at any time, be adjudged insolvent or shall have a receiving order for administration of his estate made against him or shall take any proceeding for composition under any Insolvency Act for the time being in force or make any assignment of the Order/Contract or enter into any arrangement or composition with his creditors or suspend payment or if the firm dissolved under the Partnership Act;
 - ix) If the Seller/Contractor being a company is wound up voluntarily or by order of a Court or a Receiver, Liquidator or Manager on behalf of the debenture holders and creditors is appointed or circumstances shall have ari sen which entitles the Court of debenture holder and creditors to appoint a receiver, liquidator or manager;
 - x) Non-compliance to any contractual condition or any other default attributable to Seller.

2.1.1 Risk & Cost Amount against Balance Work:

Risk & Cost amount against balance work shall be calculated as follows:

Risk & Cost Amount= $[(A-B) + (A \times H/100)]$

Where,

A= Value of Balance scope of Work (*) as per rates of new contract

B= Value of Balance scope of Work (*) as per rates of old contract being paid to the contractor at the time of termination of contract i.e. inclusive of PVC & ORC, if any.

H = Overhead Factor to be taken as 5

In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero).

2.1.2 Balance scope of work (in case of termination of contract):

Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work for calculating risk & cost amount.

Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities.

Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities a sper issued drawings would be deemed to be contract quantities.

Substitute/ extra items whose rates have already been approved would form part of contract quantities for this purpose.

Substitute/ extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions.

However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose.

NOTE: In case portion of work is being withdrawn at risk & cost of contractor instead of termination of contract, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work' for calculating Risk & Cost amount.

2.1.3 LD against delay in executed work in case of Termination of Contract:

LD against delay in executed work shall be calculated in line NIT terms & conditions, for the delay attributable to contractor. For limiting the maximum value of LD, contract value shall be taken as Executed Value of work till termination of contract.

Method for calculation of LD against delay in executed work in case of termination of contract" is given below:

- i. Let the time period from scheduled date of start of wo rk till termination of contract excluding the period of Hold (if any) not attributable to contractor = T1
- ii. Let the value of executed work till the time of termination of contract = X
- **iii.** Let the Total Executable Value of work for which inputs/fronts were made available to contractor and were planned for execution till termination of contract = Y
- iv. Delay in executed work attributable to contractor i.e. $T2 = [1-(X/Y)] \times T1$
- v. LD shall be caculated in line with LD cause (clause 16) of the Contract for the delayattributable to contractor taking "X" as Contract Value and "T2" as period of delay attributable to contractor.

2.2 Recoveries arising out of Risk & Cost and LD or any other recoveries due from Contractor:

Without prejudice to the other means of recovery of such dues from the Seller recoveries from the Seller on whom risk

& cost has been invoked shall be made from the following:

- a) Dues available in the form of Bills payable to seller, SD, BGs against the same contract.
- b) Dues payable to seller against other contracts in the same Region/Unit/ Division of BHEL.
- c) Dues payable to seller against other contracts in the different Region/Unit/ division of BHEL.

In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against contractor.



CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्वासन MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT मुख्य संविदाकार प्रस्ताव सह मुल्यांकन रिपोर्ट

Ref No	o:					Do	ite:				
संदर्भ	सं.:					ति	थिः				
i.	Main	Contractor									
	मुख्य	संविदाकार									
ii.		ct परियोजना									
iii.	Packa	ge Name पैकेज						Package No	पैकेज		
	का ना	म						सं.			
iv.	Propo	sed Item/Scope o	f Sub-con	tracting उप-							
	संविदा	(अनुबंध) का प्रस्ता	वेत मद्र/ व	ायरा							
v.		covered under	Sche	dule-1				er contract cla			
	निम्नर्रि शामिर	तेखित के अंतर्गत न मद	/अनु	सूची- 1			अनुबंध	थ के अनुसार र	वंड सं	-	
			Sche	dule-2 अनुसूची	2						
vi.			•								
	If iten	n is Schedule-1 an	d propose	ed sub-vendor is							
	indige	enous, Main Cont	ractor to e	explain how the							
	contro	actual provisions	will be ful	filled	/यदि						
		नुसूची - 1 है और प्रस्त									
		मुख्य संविदाकार के धान कैसे पूरे किए ज		। हागा कि सापदा/	अनुबध						
vii.		and Address of t		sed Sub-vendor's	works /प्र	स्तावित स	ब-वेंडर	का नाम तथा	पता		
viii.		acement date/ St ान की तिथि / एल- 2							ोओ		
ix.		Description	,,,,,	Total quantity of		Quantity	prop	osed to be	Timelii	ne for	quantity requirements as
		/Size/Rating/Sco	pe of	proposed item				proposed		•	schedule & whether the
		ontracting)	मद	envisaged in the				s/Running			ib-vendor equipped with
		त्ररण (प्रकार / आका प्राचंध का समस्य	र / राटग	package (Nos/ Running Meters				<i>/Tons etc)</i> क्रेता (संख्या /			pacity to supply proposed y in time
	/ उप-उ	मनुबंध का दायरा)		Tons etc) इस पैवे			_	/ किलोग्राम /			, मय सूची के अनुसार मात्रा
				परिकल्पित प्रस्तार्ग				दी जाने वाली			के लिए समय-सीमा और क्या
				की कुल मात्रा (संख	ज्या /	मात्रा ′			प्रस्तावि	त उप-ि	वेक्रेता समय पर प्रस्तावित मांग
				क्रियाशील मीटर /						ा की आ	पूर्ति करने में पूरी तरह से सक्षम
				किलोग्राम / टन अ	ादि)	1			है		
									<u> </u>		
x.	Suppl	y experience of t	he propo	sed sub-vendor ((including	supplies	to M	ain Contracto	or, if an	y) for	similar item/scope of sub-
	contro	acting, for last 3 y	ears (Not	te:- Only relevant	experien	nce detail:	s w.r.t.	proposed ite	em/scop	e of su	bcontracting to be brought
	out he	ere) पिछले 3 वर्षों	के लिए	उप-अनुबंध के सम	ान मद /	दायरे के ि	लेए प्रस	तावित सब-वे	ंडर (मुख	व्य संवि	दाकार हेतु आपूर्ति, यदि कोई
	हो, सर्	हित) का आपूर्ति अ	नुभव (नो	ट: - उप-अनुबंध वे	के प्रस्तावि	ोत मद / द	ायरे के	संबंध में केवर	न प्रासंगि	क अनु	भव के विवरण का उल्लेख हो



CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्वासन MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT मुख्य संविदाकार प्रस्ताव सह मुल्यांकन रिपोर्ट

	Project/Package परियोजना/पैकेज	Customer Name ग्राहक का नाम	Supplied Ite (Type/Rating/Model /Capacity/Size et आपूर्तित मद (प्रकार/रेटि /मॉडल /क्षमता/आकार आदि)	no/date c) पीओ संदर्भ	Supplied Quantity आपूर्ति की मात्रा	Date of Sup आपूर्त्ति की				
supply	We confirm that as per our assessment, the proposed sub-vendor has requisite capabilities & supply experience and is suitable for supplying the proposed item/scope of sub-contracting/हम अपने आकलन के अनुसार इस बात की पुष्टि करते हैं कि, प्रस्तावित उप-विक्रेता के पास अपेक्षित क्षमता और आपूर्ति करने का अनुभव है और उप-अनुबंध के दायरे /प्रस्तावित मद की आपूर्ति के लिए उपयुक्त है।									
Name नाम:		Desig: पद:	Contact No: दूरभाष सं.:	Sign: हस्ताक्षर:		Date: तिथि:				

Company's Seal/Stamp:- कंपनी का मुहर:-



i.	Item/Scope of Sub-contracting	
	उप-संविदा(अनुबंध) का मद/ दायरा	
ii.	Address of the registered office पंजीकृत कार्यालय का पता	Details of Contact Person संपर्क व्यक्ति का विवरण
		(a)
		(Name, Designation, Mobile, Email) (नाम, पदनाम,
		मोबाइल, ईमेल)
iii.	Name and Address of the proposed Sub-vendor's works	Details of Contact Person: संपर्क व्यक्ति का विवरण
	where item is being manufactured प्रस्तावित उप-विक्रेता के	
	कार्यों का नाम और पता, जहां मद का निर्माण किया जा रहा है	(Name, Designation, Mobile, Email) (नाम, पदनाम,
		मोबाइल, ईमेल)
		1
iv.	Annual Production Capacity for proposed item/scope of s	sub-
	contracting उप-संविदा(अनुबंध) के प्रस्तावित मद / दायरे	
	लिए वार्षिक उत्पादन क्षमता	
v.	Annual production for last 3 years for proposed item/sc	оре
	of sub-contracting उप-संविदा(अनुबंध) के प्रस्तावित मद / द	गयरे
	के लिए पिछले 3 वर्षों का वार्षिक उत्पादन	
vi.	Details of proposed works प्रस्तावित कार्यों का	ा विवरण
1.	Year of establishment of present works वर्तमान फैक्टरी की स्थापना का वर्ष	7
<i>1</i> .	स्थापना का वर्ष Year of commencement of manufacturing at above work	
	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष	
	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में	
2.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो))	
2.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में	
2. 3.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो))	
2. 3.	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र	
 3. 4. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है
 3. 4. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design)
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, per Main Contractor/purchaser design) Details attached at Annexure – F2.2
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प	पत्र Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, per Main Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र Design/ Research & development set-up डिजाइन / अनुसं और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उ	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, नकी विवाद क्षिप्त क्षिप्त क्षिप्त क्षिप्त क्षिप्त Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है)
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र Design/ Research & development set-up डिजाइन / अनुसं और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उ	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है।
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उर्थे योग्यता, मशीन और उपलब्ध उपकरण आदि)	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, नकी विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो)
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उत्योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी विवरण अनुलग्नक –एफ 2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो)
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificat machines & tools employed etc.) (श्रमिकों की संख्या, उत्योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details (Design/Manufacturing/Quality etc) मैनपावर विवरण	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी विवरण अनुलग्नक –एफ 2.2 पर संलग्न हीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो) Details attached at Annexure – F2.3 विवरण अनुलग्नक – F2.3 में संलग्न है।
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above work उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण प्र और विकास सेटअप (No. of manpower, their qualificate machines & tools employed etc.) (श्रमिकों की संख्या, उत्योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details	Details attached at Annexure – F2.1 विवरण अनुलग्नक- एफ 2.1 पर संलग्न है धान ion, निकी विवरण अनुलग्नक – एफ 2.2 पर संलग्न हों, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक – एफ 2.2 पर संलग्न है। (यदि लागू हो) Details attached at Annexure – F2.3 विवरण अनुलग्नक – F2.3 में संलग्न है।



0	After	sales service	set up in India, in case of foreigi	n suh-	A	Alak madi adala arru	/ 	
8.	-		ontact Person, Contact details etc.)		Applicable /	Not applicable लागू	/ लागू नहा	
		-	<i>जातिवटा महाउठाा, Contact details etc.,</i> ापना के बाद, विदेशी उप-विक्रेता के		Dotaile atta	ched at Annexure – F	. ४ विवस्मा	
			•	मामल		_	2.4 19959	
0		-	के, संपर्क विवरण आदि)	a la avut		4 पर संलग्न है।		
9.			ocess execution plan with flow stages of manufacturing from			ched at Annexure – F	2.5 ।ववरण	
		_	f product including outsourced product		अनुलग्नक - F2	2.5में संलग्न है।		
		-	विनिर्माण प्रक्रिया निष्पादन योजना ,	-				
	•		यदि कोई हो, सहित कच्चे माल से					
			ा के विभिन्न चरणों को दर्शाया गया हो					
10.			terial/Major Bought Out Item कच्चे ।		Details atta	ched at Annexure – F	:2.6 विवरण	
10.	_	/ खरीदे हुए मुख	,			2.6में संलग्न है।	2.0 ((() (
11.		0,0	rcised during receipt of raw materia	I/BOI.		ched at Annexure – F	:२ ७ विवरण	
11.		-	esting, packing कच्चे माल / खरीदे हु			2.7 पर संलग्न है	2.7 199(9	
			रीक्षण, पैकिंग करते समय गुणवत्ता नि		जगुराक्षमा - ह	2.7 4 < ((() %)		
12.		ıfacturing faci			Details atta	ched at Annexure – F	2.8 विवरण	
	-		ecial process facilities, material handlin	-	अनुलग्नक - F2	2.8में संलग्न है।		
		•	ग्शीनों की सूची ,विशेष प्रक्रिया सुर्ि 	वधाए,				
		ो रख-रखाव अ 	,		Details attached at Annexure — F2.9 विवरण			
13.			st of testing equipment) रीक्षण उपकरण की सूची)				2.9 विवरण	
					अनुलग्नक – F2. 9 में संलग्न है।			
14.	-		process involves fabrication then	- याद	Applicable / Not applicable लागू / लागू नहीं			
-			ब्रिकेशन की गई है तो-		Details attached at Annexure - F2.10 विवरण अनुलग्नक - F2.10में संलग्न है। (if applicable) लागू / लागू नहीं			
			lders पात्र वेल्डर की सूची					
			OT personnel with area of speciali	zation				
			हित पात्र एनडीटी कार्मिकों की सूची	. C. I.				
15.			d manufacturing processes with		Applicable / Not applicable लागू / लागू नहीं Details attached at Annexure. –F2.11 विवरण			
			nddresses सब-वेंडर द्वारा बाह्य स्रोतों	•				
	नामः	भार पत साहत)	से करवाएं गए निर्माण प्रक्रियाओं की	सूचा			2.11 ।ववरण	
					_	2.10में संलग्न है।		
						le) (यदि लागू हो)		
16.			list including recent supplies नर्व	नितम		ched at Annexure – F		
	आपूरि	र्ते सहित आपूर्ति	सदभ सूची		_	ाग्नक - F2.12 में संलग्न		
					(as per form अनुसार)	at given below) (नीरे	त्र । दए गए प्रारूप क	
Project		Customer	Supplied Item (Type/Rating/Model	PO ref	no/date पीओ	Supplied Quantity	Date of Supply	
packag		Name ग्राहक	/Capacity/Size etc) आपूर्ति की गई वस्तु	-	सं. / तिथि	आपूर्ति की मात्रा	आपूर्ति की तारीख	
परियो /गैकेन	जन⊺	का नाम	(प्रकार / रेटिंग / मॉडल /क्षमता /	,,,,,,				
/पैकेज			आकार आदि)					
<i>17</i> .	Produ	-		dback	Attached at	annexure - F2.13 अन्	नुलग्नक F2. 3पर	
			End User Feedback उत्पाद के संतो		संलग्न है			
	प्रदर्शन	सब्धा फीडबेक	पत्र / प्रमाण पत्र / अंतिम उपयोगकर्ता र्फ़	डिबेक				



18.	Summary of Type Test Report (Type Test	Details, F	Report No,	Applicat	ble / No	t applicable लाग्	् / लागू न	ाहीं
	Agency, Date of testing) for the proposed	product				,	• • • • • • • • • • • • • • • • • • • •	
	(similar or higher rating) प्रस्तावित उत्पाद (ए							
	वाले) के लिए टाइप टेस्ट रिपोर्ट (टाइप टेस्ट ि	वेवरण, रि	पोर्ट संख्या,	Details o	attache	d at Annexure –	F2.14 वि	वरण
	एजेंसी, जांच की तारीख) का सारांश			अनलगव	5 - F2 1	4में संलग्न है		
	नोट: - रिपोर्ट प्रस्तुत करने की आवश्यकता नहीं है	}		0				
	Note:- Reports need not to be submitted			(if applic	cable) (·	यदि लागू हो)		
19.				Applicat	ble / No	t applicable लाग्	<u>।</u> / लागु न	गहीं
	प्रस्तावित उत्पाद के लिए वैधानिक / अनिवा	र्य प्रमाणी	करण		-			
	,			Details attached at Annexure – F2.15				
				(if applicable) (यदि लागू हो)				
20.	Copy of ISO 9001 certificate आईएसओ 900)1 प्रमाण प	गत्र की प्रति	Attached at Annexure - F2.16 अनुलग्नक में संलग्न -				
	(if available(यदि उपलब्ध हो)			F2.1 6 है				
21.	Product technical catalogues for proposed	d item (if	available)	Details attached at Annexure – F2.17 विवरण				
	प्रस्तावित मद के लिए उत्पाद तकनीकी कैटलो	<mark>ॉग (यदि</mark> उ	पलब्ध हो)	अनुलग्नक - F2.1 7 में संलग्न है				
						1 1	1	
Name	e:	Desig:			Sign:		Date:	
नाम:		पदः			हस्ता		तिथि:	
					•			
					क्षर:			

Company's Seal/Stamp:- कंपनी की मुहर / मोहर: -

RAMAGUNDAM FGD - RIGID STEEL CONDUITS BOQ

Item Number	Item Title	Item Description	Item Quantity	Unit of Measure	Consignee ID	ZipCode	Delivery Period (In number of days)	Unit Price (Inclusive of TAX)	GST % Applicable	Brand	Model	HSN Code
1	558-15001-A	GI CONDUITS,1.6MM THK EPOXY 20MM DIA	400	MTR	PEM_RAMA_CON	505215	210					
2	558-15002-A	GI CONDUITS,1.6MM THICK, 20MM DIA	18500	MTR	PEM_RAMA_CON	505215	210					
3	558-15003-A	GI CONDUITS,1.6MM THICK, 25MM DIA	1100	MTR	PEM_RAMA_CON	505215	210					
4	558-15005-A	GI CONDUITS, 2.0MM THICK, 50MM DIA	100	MTR	PEM_RAMA_CON	505215	210					

3 X 200 + 3 X 500 MW NTPC RAMAGUNDAM TPP STAGE I & II- FGD

FOR RIGID STEEL CONDUITS

SPECIFICATION NO.: PE-TS- 467-558-E002

REVISION: 0



BHARAT HEAVY ELECTRICALS LIMITED POWER SECTOR PROJECT ENGINEERING MANAGEMENT NOIDA, UP (INDIA) – 201301

42126<u>2/2021/PS-PEM-EL</u>



TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS- 467-558-E002

VOLUME NO.: II-B

SECTION: I

REV NO.: 00 DATE: 20.08.2021

SHEET : 1 OF 11

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	SPECIFIC TECHNICAL REQUIREMENTS	01
	DATASHEET A	01
2	SECTION II	
	STANDARD TECHNICAL REQUIREMENTS	02
	STANDARD QUALITY PLAN	03

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TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

SPEC NO. PE-TS- 467-558-E002
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COMPLIANCE CERTIFICATE

The bidder shall confirm compliance to the following by signing/ stamping this compliance certificate and furnishing same with the offer.

- 1. The scope of supply, technical details, construction features, design parameters etc. shall be as per technical specification & there are no exclusion/ deviation with regard to same
- 2. There are no deviation with respect to specification other than those furnished in the 'schedule of deviations'
- 3. Only those technical submittals which are specifically asked for in NIT to be submitted at tender stage shall be considered as part of offer. Any other submission, even if made, shall not be considered as part of offer.
- 4. Any comments/ clarifications on technical/ inspection requirements furnished as part of bidder's covering letter shall not be considered by BHEL, and bidder's offer shall be construed to be in conformance with the specification.
- 5. Any changes made by the bidder in the price schedule with respect to the description/ quantities from those given in BOQ-Cum-Price schedule of the specification shall not be considered (i.e., technical description & quantities as per specification shall prevail).

BIDDER'S STAMP & SIGNATURE

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SPECIFIC TECHNICAL REQUIREMENTS

1.0 SCOPE

- 1.1 Manufacture, Inspection and Testing at Manufacturer's works, proper packing and delivery to site of rigid steel conduits conforming to this specification.
- 1.2 Technical requirements of rigid steel conduits are indicated in Data Sheet-A & Section-II.
- 1.3 The stipulation of Data Sheet-A shall prevail in case of any conflict between the stipulations of Data Sheet-A & Section-II.

2.0 BILL OF QUANTITIES

The bidder to quote for items as per price schedule attached with NIT.

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 item(s)/package will be supplied free of cost in most reasonable time."

3.0 DRAWINGS & DOCUMENTS TO BE SUBMITTED

- 3.1 Bidders shall furnish following documents as the part of their technical offer:
 - a) Complete signed & stamped copy of this specification.
 - b) "Deviation Schedule" with "NO Deviations" and bidder's signature and company stamp.
 - c) Unpriced Price Schedule as enclosed with NIT with 'Quoted" word against items with bidder's signature and company stamp.
- 3.2 Document submission / resubmission schedule after placement of order shall be as per NIT.

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4.0 PACKING

4.1 Packing shall be as per Clause 5 of Section -II.

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DATASHEET-A

I. APPLICABLE STANDARDS & CODES

a) IS:9537 (Part I & II) Conduits for electrical installation.

b) IS:2629 Recommended practice for hot dip galvanizing on iron and steel.

c) IS:4759 Specification for hot dip zinc coatings on structural steel and allied

products

d) IS:6745 Methods for determination of mass of zinc coating on zinc coated

iron and steel articles.

e) IS:513 Cold reduced low carbon steel sheet and strip

f) IS: 10748 Hot rolled Steel strip for welded tubes and pipes

g) IS: 2633 Method for testing uniformity of coating on zinc coated articles

h) IS:6005 Code of practice for phosphating iron & steel

II. RIGID STEEL CONDUITS

S.No.	Description	Unit	Parameters value/ type
а	Make	-	BIS approved
			[] As per enclosed sub-vendor list
b	Material	-	Hot/Cold rolled mild steel
С	Sizes	-	As per BOQ cum price schedule
d	Standard length	meter	3 – 5
е	Classification as per		Heavy
	mechanical properties		
f	Conduit thickness	mm	1.6 up to 25 mm dia,
	(minimum)		2.0 above 25 mm & up to 50 mm dia
g	Surface treatment	-	Hot dip galvanizing on inside & outside
			surface
h	Epoxy thickness	micron	50 (applicable for epoxy coated conduits only)

III. SURFACE TREATMEMT

а	Pre-treatment	-	As per IS 6005 prior to galvanising
b	Туре	-	Hot dip galvanizing as per IS 2629
С	Min. Thickness of zinc	microns	48 (up to 25 mm dia),
	coating		65 (above 25 mm & up to 50 mm dia)
d	Min. Weight of zinc	(gm/m2)	340 (up to 25 mm dia)
	coating		460 (above 25 mm & up to 50 mm dia)
е	Tests for galvanizing	-	a) Weight of zinc coating as per IS: 6745
			b) Thickness of zinc coating as per IS: 4759
			c) Uniformity of zinc coating as per IS: 2633
			d) Adhesion as per IS: 2629

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SECTION-II

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TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

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1.0 INTENT OF SPECIFICATION

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 up to & 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 AND 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 The material, construction, manufacture, inspection and testing of Rigid steel conduits shall conform to the latest revision of relevant standards as per Data Sheet-A.
- 2.3 In case of conflict between the applicable reference standard and this specification, the stringent requirement of the two shall govern.

3.0 TECHNICAL REQUIREMENTS

- 3.1 Rigid conduits shall generally conform to the requirements of IS: 9537 (part I & II).
- 3.2 The diameter of conduits shall be uniform throughout the length. Each end of conduit length shall be threaded. The ends of conduits shall be sealed with protective caps to prevent damage to threaded portions and entrance of moisture and foreign material.
- 3.3 The inside surface of all conduits shall be smooth and suitable for pulling insulated cables and wires without damage.
- 3.4 Technical particulars of rigid conduits are specified in Data Sheet A.

4.0 QUALITY ASSURANCE, TESTING & INSPECTION

- 4.1 Bidder shall confirm compliance with the BHEL's Standard Quality Plan (PE-QP-999-558-E001) as attached with the specification without any deviations. At contract stage, the successful bidder shall submit the Quality Plan for BHEL/ ultimate customer's approval. In case bidder has reference Quality Plan agreed with ultimate customer, same can be submitted for specific project after award of contract for BHEL/ ultimate customer's approval. There shall be no commercial implication to BHEL on account of Quality plan approval.
- 4.2 All materials shall be procured, manufactured, inspected and tested by vendor/ sub-vendor as per approved quality plan.
- 4.3 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 the specification. Charges for all these tests for all the equipments & components shall be deemed to be included

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TECHNICAL SPECIFICATION FOR RIGID STEEL CONDUITS

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in the bid price.

4.4 In case ordered quantities are manufactured and offered for inspection in more than one lot, BHEL reserves the right to witness testing on all lots without any commercial implication to BHEL.

5.0 PACKING

- 5.1 The material shall be packed to ensure protection against damage during transit, storage for prolonged periods and handling.
- 5.2 The ends of conduits shall be sealed with protective caps.
- 5.3 Each conduit shall be wrapped in plastic to prevent dust deposition.
- 5.4 The conduits should be aligned and stacked in bundles (a maximum of 25 pieces per bundle).
- 5.5 Each bundle shall be covered with jute fibre / thick plastic wrap for protection against extreme weather. Then, the bundle shall be tied with twin-strand mild steel wire, strong rope or steel strip.

6.0 MARKING

- 6.1 Rigid conduits shall be marked at least once on each manufacturing length, preferably 50 mm from one end, with the following:
- a) Manufacturer's name or trade mark, if any;
- b) Country of manufacture; and
- c) Nominal size of the conduits.
- d) ISI Certification Mark.

Marking may be applied by moulding, stamping, printing, adhesive label or water slide transfers.

- 6.2 Marking shall be durable and legible.
- 6.3 Marking shall be checked by inspection and by rubbing lightly the marking by hand for 15 seconds with a piece of cloth soaked with water and again for 15 seconds with a piece of cloth soaked with petroleum spirit.

	MANUFAC SUPPLIER	TURER/ BI NAME & ADDRESS	IDDER/	S	TANDARI	QUALIT	Y PLAN		SPEC	. NO :					DATE:
बीएचई				CUSTOMER:					QP No	O.: PE-QP-999	-558-E	001, R	204		DATE: 23.07.2020
	FL		Ī	PROJECT:					PO NO	0.:					DATE:
			ŀ	ITEM: RIGID S	FEEL CONDUI	TS SYSTI	EM: STATION LI	GHTING	SECTION: II						SHEET 1 OF 3
SL NO.			CLASS	TYPE OF CHECK	QUAN OF CH		REFERENCE DOCUMENT	ACCEP E NOR			FORMAT OF RECORD		AGENCY		REMARKS
1	2	3	4	5	6	7 8			9 *		**				
	2	3	4	3	М	C/ N		°		9	D	М	С	N	
1.0 RAW	/ MATERIAL/BOU	GHT OUT ITEMS													
1.1		HOT ROLLED STEEL STRIP	MA	VISUAL, MECH. & CHEMICAL	MFR. STD.	-	IS10748	IS107	'48	TEST CERT.	V	Р	V	_	AS APPLICABLE
1.2		COLD ROLLED STEEL SHEET	MA	VISUAL, MECH. & CHEMICAL	MFR. STD.	-	IS513	IS51	3	TEST CERT.	V	Р	V	-	AS APPLICABLE
2.0 ACC	EPTANCE TESTS														
2.1		DIMENSIONS	MA	MEASUREM ENT	IS 9537-II	IS 9537-II	IS:9537/ APPROVED DATA SHEET	APPROV DATA SI		INSP. REPORT	1	Р	W	-	
2.2		MECH. PROPERTIES													
2.2A	RIGID STEEL CONDUITS	BENDING TEST	CR	TEST	IS 9537-II	IS 9537-II	IS 9537-II	IS 9537-	ll	INSP. REPORT	V	Р	W	-	
2.2B		COMPRESSION TEST	CR	TEST	IS 9537-II	IS 9537-II	IS 9537-II	IS 9537-	l l	INSP. REPORT	V	Р	W	-	
2.3		GALVANISATION TEST													
2.3A		UNIFORMITY OF ZINC COATING	CR	TEST	IS 9537-II	IS 9537-II	IS-2633/ APPD DS	IS-2633/ APPD DS	S	INSP. REPORT	√	Р	W	-	
		BHEL				DIDDED/	SUPPLIER	-		FOR CUST	OMED	DEVII	DXX/ O-	A DDD	OVAL

Sign & Date

Seal

QUALITY

Name

Ricall Sound by RITESH RUMAR JAISWAL DN: c=N, o=Bharat Heavy Electricals Ltd, GLAHE SANN As (Code=201301,

KUNAL GANDHI

Sign & Date

RITESH **KUMAR** JAISWAL Doc No:

Reviewed

Approved

by:

Sign & Date

Name

Seal

MANUFACTURER/

ENGINEERING

Name

TO THE PROPERTY AND THE PROPERTY OF THE PROPER

MEET SAGAR SINGH RAJPAL/ MUDIT CHOPRA

Reviewed

Sign & Date

Prepared

Reviewed

by:

BIDDER/

बीएच इ	MANUFAC SUPPLIER	TURER/ BI NAME & ADDRESS	IDDER/	S	TANDARI	QUALIT	TY PLAN		SPEC	. NO :					DATE:	
				CUSTOMER:					QP N	O.: PE-QP-999-	-558-E(01, R	R04		DATE: 23.07.2020	
				PROJECT:					PO NO.:						DATE:	
				ITEM: RIGID S	TEM: RIGID STEEL CONDUITS SYSTEM: STATION LIGHTING SYSTEM						SECTION: II					
SL NO.	COMPONENT & OPERATIONS	CHARACTERISTIC S	CLASS	TYPE OF CHECK	QUAN OF CH		REFERENCE DOCUMENT	ACCEPTANC E NORMS		1	FORMAT OF RECORD		AGENCY		REMARKS	
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					М	C/ N					D	М	С	N		
2.3B		MASS OF ZINC COAT.	CR	TEST	IS 9537-II	IS 9537-II	IS-6745/ APPD DS	IS-6745/ APPD DS	S	INSP. REPORT	√	Р	w	-		
2.3C		COATING THICKNESS	CR	TEST	IS 9537-II	IS 9537-II	IS-4759/ APPD DS	IS-4759/ APPD DS	S	INSP. REPORT	√	Р	w	-	BY ELCOMETER Refer Note 8	
2.3D		EPOXY THICKNESS	MA	VISUAL/PH YSICAL	IS 9537-II	IS 9537-II	50 MICRONS	50 MICR	ONS	INSP. REPORT	√	Р	w	-	AS APPLICABLE	
2.4		MARKING	CR	VISUAL/PH YSICAL	IS 9537-II	IS 9537-II	APPROVED DATA SHEET	APPROV DATA SI		INSP. REPORT		Р	W	-		
3.0 PACKING									·							
	PACKING	Soundness of Packing against transit damage	Major	Visual	100%	100%	BHEL * approved document	BHEL approved documer		Inspection report	V	Р	W	-		

NOTES:

- 1. The inspection shall be carried out once for the material offered for inspection in one lot. For subsequent lots against the same project, the material can be accepted based on certificate of compliance furnished by the vendor.
- 2. Project specific QP shall be based on customer requirement. In case, any changes in QP commented by customer at contract stage shall be carried out by bidder without any implication to BHEL/ Customer.
- 3. For export jobs, BHEL technical specification for seaworthy packing for export jobs is to be followed.
- 4. Packing shall be suitable for storage at site in tropical climatic conditions. *Packing shall be done as per Clause 5 of Section -II of Technical specification.

		ВНІ	EL			BIDDER/ SUPPLIER			FOR CUSTOMER REVIEW & APPROVAL						
	ENGINEERING QUALITY							D	oc No:						
	Sign & Date	Name		Sign & Date	Name	Seal				Sign & Date	Name	Seal			
Prepared by:	MEET SAGAR SINGH RAJPAL MUDIT CHOPRA MUDIT CHOPRA	SINGH RAIPAL/	Checked by:	Digitally signed by Kunel Discon-Survel is one consultation in the	KUNAL GANDHI			R b	eviewed y:						
Reviewed by:		Digitally SPOR I APAWEMENT A DN: C-IN, 0=0 TARAT REAVY ELECTRICALS LIMITED, ou=PSAEVC POSTAC Que=201301, ST-UTTAR PRIMESU, ST	h	RITESH KUMAR	Bitalh Legned by RTESH KUMAR JASWAL 60 c = 14, 6=8hsrat Heavy Electricals Ltd, our BHEL (25-65M, posted Code=201301, 1-4-15-5-4-4 2.5.4.20=16692a281523bf78b46a8e18c5cd0b			A b	pproved y:						
		dd61dd68dbef4c976429c5c374e3b47b930, cn=PRAVEEN DUTTA Date: 2020.07.25 12:27:26+05'30'		JAISWAL	serial Number=8cfad df001 b4875a8b03a31b0 00e9 9f205394f62c650e6d3f9d9980e09bc448 , cn=RTESH KUMAR JAISWAL Date: 2020.07.29 08:59:18 +05'30										

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					CUSTOMER:					QP N	O.: PE-QP-999-558-E	001, R04	DATE: 23.07.2020
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	SL NO.	COMPONENT & OPERATIONS	CHARACTERISTIC S	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANC E NORMS	FORMAT OF RECORD		AGENCY	REMARKS
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- 5. Latest revision/ year of issue of all the standards (IS/ ASME/ IEC etc.) Indicated in QP shall be referred.
- 6. BHEL reserves the right for conducting repeat test if required.
- 7. After packing and prior to issue MDCC, photographs of items to be dispatched shall be sent to BHEL purchase group for review.
- 8. Thickness of zinc coating shall be the average of the determination made at each end and the middle of the article.

LEGENDS:

*RECORDS, INDENTIFIED WITH "TICK"(\(d\)) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION,

JAISWAL

** M: SUPPLIER/ MANUFACTURER/ SUB-SUPPLIER, C: MAIN SUPPLIER/ BHEL/ THIRD PARTY INSPECTION AGENCY, N: CUSTOMER,

P: PERFORM, W: WITNESS, V: VERIFICATION, AS APPROPRIATE

MA: MAJOR, MI: MINOR, CR: CRITICAL, D: DOCUMENTATION

	BHEL												
ENGINEERING QUALITY Sign & Date Name Sign & Date Name													
	Sign & Date	Name		Name									
Prepared by:	MEET SAGAR SINGH RAJPAL MUDIT CHOPPA Onto Application Service Servic		Checked by:	Digitally signed by Kunal DN cn=Kunal, o, ou, emal=kunalgendhis- bhelin.<-IN Date: 202.07.29 C0:21:33 +05:30'	KUNAL GANDHI								
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BID	DER/ SUPPLIER		FOR CU	STOMER REVIE	EW & APPROVAL
gn & Date		Doc No:			
al		Reviewed by:	Sign & Date	Name	Seal
		Approved by:			



PRE-QUALIFICATION REQUIRMENTS FOR RIGID STEEL CONDUITS

PE-PQ-999-558-E002

REVISION NO. 01 DATE 20/03/2017

SHEET NO. 1 OF 1

ITEMS	: RIGID STEEL CONDUITS
SCOPE	: Supply : YES; Erection & Commissioning : NO.
1.0	Vendor should be a BIS approved manufacturer of rigid steel conduits as per IS 9537 Part II.
2.0	Availability of test reports of rigid steel conduits to establish in- house capability at manufacturer's works to carry out all routine, type & acceptance tests as per relevant IS.
3.0	Capacity of manufacturing 30 MT of rigid steel conduits per month.
4.0	Manufactured and supplied at least 80 km of rigid steel conduits in one or more orders.
5.0	Minimum two (2) nos. purchase orders for rigid steel conduits shall be submitted which should not be more than five (5) years old from the date of application for registration or date of technocommercial bid opening (as applicable) for establishing continuity in business.

NOTE:

- 1. The vendor can offer rigid steel conduits of any BIS approved make meeting criteria S.No.1 to 4 above. The vendor to furnish the following documents:
- a) Undertaking from BIS approved manufacturer of offered make to get the inspection & testing of conduits carried out at manufacturer's works.
- b) Credentials of the manufacturer of offered make to meet the PQR requirements of S no 1.0 to 4.0 above.
- c) Vendor's Credentials to meet S no 5.0.
- 2. Consideration of offer shall be subject to customer's approval of bidders, if applicable.
- 3. 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.
- 4. Any other project specific requirement shall be as per Annexure-I and bidder shall submit relevant supporting documents.
- 5. Notwithstanding anything stated above, BHEL reserves the right to assess the capabilities and capacity of the bidder/collaborators to perform the contract, should the circumstances warrant such assessment in the overall interest of BHEL.
- 6. After satisfactory fulfillment of all the above criterial requirement, offer shall be considered for further cvaluation as per NIT and all the other terms of the tender.

PREPARED BY

Name: 20 03 17

DESIGNATION: (Middle Control of the c

Letter head of Company (<Rs. 10 Cr value)

Ref	Date
То,	
Bharat Heavy Electricals Limited PEM,	
PPEI Building, Plot No 25, Sector -16A,	
Noida (U.P)-201301	
Subject: -Certification regard	ding local content
Reference: Tender Enquiry No	
Name of Package:	
Dear Sir,	
We hereby certify that items offered by us of Name/Rate contract) meets the requirement of min NIT No dated and the Public Procuremed dated-15.06.2017, 28.05.2018, 29.05.2019, 04.06.2020 &	nimum local content in line with Cl. No of ent (Preference to Make in India), Order 2017
Local Content%	
We further confirms that details of location at which the lower works at(address	
	Yours very truly
	(authorized signatory of company)
	(firm name)

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

Kind Attn. Mr.
Dear Sir,
This has reference to:
1. Our offer for PVC Wires for Combined Tender Enquiry (2 X 250 MW NSPCL Bhilal TPP-FGD, 2X500 MW NTPC MAUDA FGD STAGE-I, 3X200 + 3X500 MW NTPC RAMAGUNDAM TPP FGD, 3X200+3X500+1x500 MW NTPC KORBA TPP-FGD, 3X660 MW North Karanpura FGD, 3X660 MW NPGCL NABINAGAR FGD and 4X250MW BRBCL Nabinagar FGD projects), GeM Tender No
2. Order no. F. No. 6/18/2019-PPD dt. 23.07.2020 issued by Ministry of Finance, Department of Expenditure Public Procurement Division.
I have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India; I certify that M/s (Company Name) is not from such a country or , if from such a country, has been registered with the competent authority. (Remove the non-applicable)
I hereby certify that M/s (Company Name) fulfil all requirements in this regard and is eligible to be considered.
[where applicable, evidence of valid registration by the competent authority shall be attached]
Thanking You, Yours faithfully,
Owner, partner, CMD, Director, Authorized Signatory with proof that he/she is authorized to sign on owner's behalf
M/s

ANNEXURE FOR RISK & COST

1. In case of delays (beyon d the maximu m late delive ry period as per LD cl ause) in supplie s, or if there be defective su pplies or no n-fulfilment of any other terms and conditions of the Co ntract as en umerated subsequently in this clause, then, without prejudice to its right to recover any expenses, losses or damages to which the B uyer may be put to in cur or sustain by reason of the Seller/Contractor's default or b reach of Order/Contract or to suspend business dealings with the Seller/Contractor in terms of the Buyers' Guidelines for Suspension of Business Dealings as applicable from time to time, the Buyer shall also be entitled to cancel the Order/ Contract either in whole or portion thereof without compensation to Seller. On the occurrence of any of the acts/omission's mentioned below, the Buyer may if it so desi res, procure upon such terms and in such manner as deemed appropriate, plant/equipment/ stores not so delivered or others of similar description where plant/ equipment/ stores exactly complying with particulars are not, in the opinion of the Buyer (which shall be final), readily procurable, at the risk and cost of the Seller.

The Seller shall be liable to the Buyer for any excess costs incurred thereof and the Seller shall continue the performance of the Order/Contract to the extent not cancelled under the provisions of this clause. The Seller shall on no account be entitled to any gain on such repurchases. If the Bidder does not agree to this Risk Purchase clause, BHEL reserves the right to reject the bid/offer of the Bidder. The order/contract may be cancelled in whole or part thereof and Risk & Cost Clause in line with terms and conditions of PO/Contract may be invoked by the Buyer in any of the following cases:

- i. If the Seller/Contractor fails to deliver the good s or materials or any instalment thereof within the period(s) fixed for such delivery or the Seller's poor progress of the supply/services vis-à-vis delivery/execution timeline as stipulated in the contract, backlog attributable to the Seller including unexecuted portion of supply does not appear to be executable within balance period available;
- ii. delivers g oods or mat erials not of the cont racted quality and failing to adhe re to the contract specifications/execution methodology;
- iii. withdrawal from or repudiation/abandonment of the supply/services by the Seller before completion as per contract or if the Seller refuses or is unable to supply goods or materials covered by the order/Contract either in whole or in part or otherwise fails to perform the Order/Contract.
- iv. Non supply by the Seller within scheduled completion/delivery period as per contract or as extended from time to time for reasons attributable to the Seller;
- v. Termination of Contract on account of any other reason(s) attributable to the Seller.
- vi. Assignment, transfer, sub-letting of Contract with out BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
- vii. If the Seller be an individual or a Sole Proprietorship, in the event of death or insanity of the Seller.
- viii. If the Seller/Contractor being an individual or if a partnership firm thereof, shall at any time be a djudged insolvent or shall have a receivin g order for administration of his estate made against him or shall take a ny proceeding for composition under any Insolvency Act for the time being in force or make any assignment of the order/Contract or enter into any arrangement or composition with his creditors or suspend payment or if the firm dissolved under the Partnership Act;
- ix. If the Seller/Co ntractor being a Company is wound up voluntarily or by order of a Court or a Receiver, Liquidator or Manager on behalf of the debenture holders and creditors is appointed or circumstances have arisen which entitles the Court of debenture holder and creditors to appoint a receiver, liquidator or manager
- x. Non- Compliance to any contractual condition or any other default attributable to the Seller.

Such defaulting vendor/Seller shall not be eligible to participate in re-tendering conducted on account of risk purchase made due to fault of such vendor/Seller.

- 2. BHEL's right to go for Risk and Cost, Calcul ation of Risk and Cost amount & L D, recovery options to BHEL are given as under: -
 - 2.1 BHEL reserves the right to terminate the contract or withdraw portion of work and get it do ne through other agency, at the risk and cost of the contractor after due notice of a period of 14 days' by BHEL in any of the following cases:
 - i) If the Sell er/Contractor fails to deliver the go ods or materials or any in stalment there of within the period(s) fixe d for such d elivery or the Seller's poor p rogress of the su pply/services v is-a-vis delivery/execution timeline as stipulated in the Contract, backlog attributable to sell er including unexecuted portion of supply does not appear to be executable within balance available period;
 - ii) Delivers g oods o r mat erials not of the contracted quality and failing to adhere to the contract specifications;
 - iii) Withdrawal from or repudiation/ abandonment of the supply/ services by Seller before completion as per contract or if the Seller refu ses or is unable to supply go ods or materials covered by the Order/Contract either in whole or in part or otherwise fails to perform the Order/Contract;
 - iv) Non-supply by the Seller within scheduled completion/delivery period as per Contract or as extended from time to time, for the reasons attributable to the Seller;
 - v) Termination of Contract on account of any other reason (s) attributable to Seller.
 - vi) Assignment, transfer, subletting of Contract without BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
 - vii) If the Seller be an individual or a sole proprietorship Firm, in the event of the death or insanity of the Seller;
 - viii) If the Seller/Contractor being an individual or if a firm on a partnership thereof, shall at any time, be adjudged insolvent or shall have a receiving order for administration of his estate made against him or shall take any proceeding for composition under any Insolvency Act for the time being in force or make any assignment of the Order/Contract or enter into any arrangement or composition with his creditors or suspend payment or if the firm dissolved under the Partnership Act;
 - ix) If the Seller/Contractor being a company is wound up voluntarily or by order of a Court or a Receiver, Liquidator or Manager on behalf of the debenture holders and creditors is appointed or circumstances shall have ari sen which entitles the Court of debenture holder and creditors to appoint a receiver, liquidator or manager;
 - x) Non-compliance to any contractual condition or any other default attributable to Seller.

2.1.1 Risk & Cost Amount against Balance Work:

Risk & Cost amount against balance work shall be calculated as follows:

Risk & Cost Amount= $[(A-B) + (A \times H/100)]$

Where,

A= Value of Balance scope of Work (*) as per rates of new contract

B= Value of Balance scope of Work (*) as per rates of old contract being paid to the contractor at the time of termination of contract i.e. inclusive of PVC & ORC, if any.

H = Overhead Factor to be taken as 5

In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero).

2.1.2 Balance scope of work (in case of termination of contract):

Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work for calculating risk & cost amount.

Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities.

Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities a sper issued drawings would be deemed to be contract quantities.

Substitute/ extra items whose rates have already been approved would form part of contract quantities for this purpose.

Substitute/ extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions.

However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose.

NOTE: In case portion of work is being withdrawn at risk & cost of contractor instead of termination of contract, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work' for calculating Risk & Cost amount.

2.1.3 LD against delay in executed work in case of Termination of Contract:

LD against delay in executed work shall be calculated in line NIT terms & conditions, for the delay attributable to contractor. For limiting the maximum value of LD, contract value shall be taken as Executed Value of work till termination of contract.

Method for calculation of LD against delay in executed work in case of termination of contract" is given below:

- i. Let the time period from scheduled date of start of wo rk till termination of contract excluding the period of Hold (if any) not attributable to contractor = T1
- ii. Let the value of executed work till the time of termination of contract = X
- **iii.** Let the Total Executable Value of work for which inputs/fronts were made available to contractor and were planned for execution till termination of contract = Y
- iv. Delay in executed work attributable to contractor i.e. $T2 = [1-(X/Y)] \times T1$
- v. LD shall be caculated in line with LD cause (clause 16) of the Contract for the delayattributable to contractor taking "X" as Contract Value and "T2" as period of delay attributable to contractor.

2.2 Recoveries arising out of Risk & Cost and LD or any other recoveries due from Contractor:

Without prejudice to the other means of recovery of such dues from the Seller recoveries from the Seller on whom risk

& cost has been invoked shall be made from the following:

- a) Dues available in the form of Bills payable to seller, SD, BGs against the same contract.
- b) Dues payable to seller against other contracts in the same Region/Unit/ Division of BHEL.
- c) Dues payable to seller against other contracts in the different Region/Unit/ division of BHEL.

In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against contractor.



CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्वासन MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT मुख्य संविदाकार प्रस्ताव सह मुल्यांकन रिपोर्ट

Ref No	o:					Do	ite:				
संदर्भ	सं.:					ति	थिः				
i.	Main	Contractor									
	मुख्य	संविदाकार									
ii.		ct परियोजना									
iii.	Packa	ge Name पैकेज						Package No	पैकेज		
	का ना	म						सं.			
iv.	Propo	sed Item/Scope o	f Sub-con	tracting उप-							
	संविदा	(अनुबंध) का प्रस्ता	वेत मद्र/ व	ायरा							
v.		covered under	Sche	dule-1				er contract cla			
	निम्नर्रि शामिर	तेखित के अंतर्गत न मद	/अनु	सूची- 1			अनुबंध	थ के अनुसार र	वंड सं	-	
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vi.			•								
	If iten	n is Schedule-1 an	d propose	ed sub-vendor is							
	indige	enous, Main Cont	ractor to e	explain how the							
	contractual provisions will be fulfilled /यदि										
		नुसूची - 1 है और प्रस्त									
		मुख्य संविदाकार के धान कैसे पूरे किए ज		। हागा कि सापदा/	अनुबध						
vii.		and Address of t		sed Sub-vendor's	works /प्र	स्तावित स	ब-वेंडर	का नाम तथा	पता		
viii.		acement date/ St ान की तिथि / एल- 2							ोओ		
ix.		Description	,,,,,	Total quantity of		Quantity	prop	osed to be	Timelii	ne for	quantity requirements as
		/Size/Rating/Sco	pe of	proposed item				proposed		•	schedule & whether the
		ontracting)	मद	envisaged in the				s/Running			ib-vendor equipped with
		त्ररण (प्रकार / आका प्राचंध का समस्य	र / राटग	package (Nos/ Running Meters				<i>/Tons etc)</i> क्रेता (संख्या /			pacity to supply proposed y in time
	/ उप-उ	मनुबंध का दायरा)		Tons etc) इस पैवे			_	/ किलोग्राम /			, मय सूची के अनुसार मात्रा
				परिकल्पित प्रस्तार्ग				दी जाने वाली			के लिए समय-सीमा और क्या
				की कुल मात्रा (संख	ज्या /	मात्रा ′			प्रस्तावि	त उप-ि	वेक्रेता समय पर प्रस्तावित मांग
				क्रियाशील मीटर /						ा की आ	पूर्ति करने में पूरी तरह से सक्षम
				किलोग्राम / टन अ	ादि)	1			है		
									<u> </u>		
x.	Suppl	y experience of t	he propo	sed sub-vendor ((including	supplies	to M	ain Contracto	or, if an	y) for	similar item/scope of sub-
	contro	acting, for last 3 y	ears (Not	te:- Only relevant	experien	nce detail:	s w.r.t.	proposed ite	em/scop	e of su	bcontracting to be brought
	out he	ere) पिछले 3 वर्षों	के लिए	उप-अनुबंध के सम	ान मद /	दायरे के ि	लेए प्रस	तावित सब-वे	ंडर (मुख	व्य संवि	दाकार हेतु आपूर्ति, यदि कोई
	हो, सर्	हित) का आपूर्ति अ	नुभव (नो	ट: - उप-अनुबंध वे	के प्रस्तावि	ोत मद / द	ायरे के	संबंध में केवर	न प्रासंगि	क अनु	भव के विवरण का उल्लेख हो



CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्वासन MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT मुख्य संविदाकार प्रस्ताव सह मुल्यांकन रिपोर्ट

	Project/Package परियोजना/पैकेज	Customer Name ग्राहर का नाम	क्र Supplied Item (Type/Rating/Model /Capacity/Size etc आपूर्तित मद (प्रकार/रेटिंग /मॉडल /क्षमता/आकार आदि)	no/date पीओ संदर्भ	Supplied Quantity आपूर्ति की मात्रा	Date of Supply आपूर्ति की तिथि		
We confirm that as per our assessment, the proposed sub-vendor has requisite capabilities & supply experience and is suitable for supplying the proposed item/scope of sub-contracting/हम अपने आकलन के अनुसार इस बात की पृष्टि करते हैं कि, प्रस्तावित उप-विक्रेता के पास अपेक्षित क्षमता और आपूर्ति करने का अनुभव है और उप-अनुबंध के दायरे /प्रस्तावित मद की आपूर्ति के लिए उपयुक्त है।								
Name नाम:	;	Desig: पद:	Contact No: दूरभाष सं.:	Sign: हस्ताक्षर:		Date: तिथि:		

Company's Seal/Stamp:- कंपनी का मुहर:-



i.	Item/Scope of Sub-contracting				
	उप-संविदा(अनुबंध) का मद/ दायरा				
ii.	Address of the registered office पंजीकृत कार्यालय का पता	Details of Contact Person संपर्क व्यक्ति का विवरण			
		(a)			
		(Name, Designation, Mobile, Email) (नाम, पदनाम,			
		मोबाइल, ईमेल)			
iii.	Name and Address of the proposed Sub-vendor's works	Details of Contact Person: संपर्क व्यक्ति का विवरण			
	where item is being manufactured प्रस्तावित उप-विक्रेता के	Details of contact resem are track in the track			
	कार्यों का नाम और पता, जहां मद का निर्माण किया जा रहा है	(Name, Designation, Mobile, Email) (नाम, पदनाम,			
		मोबाइल, ईमेल)			
		1			
iv.	Annual Production Capacity for proposed item/scope of sub-				
	contracting उप-संविदा(अनुबंध) के प्रस्तावित मद / दायरे के				
	लिए वार्षिक उत्पादन क्षमता				
v.	Annual production for last 3 years for proposed item/scope				
	of sub-contracting उप-संविदा(अनुबंध) के प्रस्तावित मद / दायरे				
	के लिए पिछले 3 वर्षों का वार्षिक उत्पादन				
vi.	Details of proposed works प्रस्तावित कार्यों का वि	वरण			
1.	Year of establishment of present works वर्तमान फैक्टरी की स्थापना का वर्ष				
<i>1</i> .	स्थापना का वर्ष Year of commencement of manufacturing at above works				
	स्थापना का वर्ष Year of commencement of manufacturing at above works उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष				
	स्थापना का वर्ष Year of commencement of manufacturing at above works उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में				
2.	स्थापना का वर्ष Year of commencement of manufacturing at above works उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो))				
2.	स्थापना का वर्ष Year of commencement of manufacturing at above works उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में				
2. 3.	स्थापना का वर्ष Year of commencement of manufacturing at above works उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो))				
2. 3.	स्थापना का वर्ष Year of commencement of manufacturing at above works उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र	Details attached at Annexure – F2.1 विवरण			
 3. 4. 	स्थापना का वर्ष Year of commencement of manufacturing at above works उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र	अनुलग्नक- एफ 2.1 पर संलग्न है			
 3. 4. 	स्थापना का वर्ष Year of commencement of manufacturing at above works उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र	अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as			
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above works उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण पत्र	अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design)			
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above works उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण पत्र Design/ Research & development set-up डिजाइन / अनुसंधान	अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design) Details attached at Annexure – F2.2			
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above works उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण पत्र Design/ Research & development set-up डिजाइन / अनुसंधान और विकास सेटअप (No. of manpower, their qualification,	अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य			
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above works उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण पत्र Design/ Research & development set-up डिजाइन / अनुसंधान और विकास सेटअप (No. of manpower, their qualification, machines & tools employed etc.) (श्रमिकों की संख्या, उनकी	अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है)			
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above works उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण पत्र Design/ Research & development set-up डिजाइन / अनुसंधान और विकास सेटअप (No. of manpower, their qualification, machines & tools employed etc.) (श्रमिकों की संख्या, उनकी	अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है।			
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above works उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण पत्र Design/ Research & development set-up डिजाइन / अनुसंधान और विकास सेटअप (No. of manpower, their qualification, machines & tools employed etc.) (श्रमिकों की संख्या, उनकी योग्यता, मशीन और उपलब्ध उपकरण आदि)	अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो)			
 3. 4. 5. 	स्थापना का वर्ष Year of commencement of manufacturing at above works उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण पत्र Design/ Research & development set-up डिजाइन / अनुसंधान और विकास सेटअप (No. of manpower, their qualification, machines & tools employed etc.) (श्रमिकों की संख्या, उनकी योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details	अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक –एफ 2.2 पर संलग्न है। (यदि लागू हो) Details attached at Annexure – F2.3 विवरण			
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above works उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण पत्र Design/ Research & development set-up डिजाइन / अनुसंधान और विकास सेटअप (No. of manpower, their qualification, machines & tools employed etc.) (श्रमिकों की संख्या, उनकी योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details (Design/Manufacturing/Quality etc) मैनपावर विवरण के	अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक – एफ 2.2 पर संलग्न है। (यदि लागू हो) Details attached at Annexure – F2.3 विवरण अनुलग्नक – F2.3 में संलग्न है।			
 3. 4. 6. 	स्थापना का वर्ष Year of commencement of manufacturing at above works उपरोक्त फैक्टरी में निर्माण कार्य शुरू होने का वर्ष Details of change in Works address in past (if any पूर्व में फैक्टरी स्थल में परिवर्तन का विवरण (यदि कोई हो)) Total Area कुल क्षेत्र Covered Area शामिल क्षेत्र Factory Registration Certificate फैक्टरी पंजीकरण प्रमाण पत्र Design/ Research & development set-up डिजाइन / अनुसंधान और विकास सेटअप (No. of manpower, their qualification, machines & tools employed etc.) (श्रमिकों की संख्या, उनकी योग्यता, मशीन और उपलब्ध उपकरण आदि) Overall organization Chart with Manpower Details	अनुलग्नक- एफ 2.1 पर संलग्न है Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design) Details attached at Annexure – F2.2 (if applicable) लागू / लागू नहीं, अगर विनिर्माण मुख्य संविदाकार / खरीददार के डिजाइन के अनुसार है) विवरण अनुलग्नक – एफ 2.2 पर संलग्न है। (यदि लागू हो) Details attached at Annexure – F2.3 विवरण अनुलग्नक – F2.3 में संलग्न है।			



0	After	sales service	set un in India in case of foreign	n suh-	A	Alak madi adala arru	/ 	
8.	After sales service set up in India, in case of foreign subvendor(Location, Contact Person, Contact details etc.) भारत				Applicable / Not applicable लागू / लागू नहीं			
	में बिक्री सेवा की स्थापना के बाद, विदेशी उप-विक्रेता के मामले			Details attached at Annexure — F2.4 विवरण				
			•	मामल	_			
	में(स्थल, संपर्क व्यक्ति, संपर्क विवरण आदि) Manufacturing process execution plan with flow chart			अनुलग्नक -2.4 पर संलग्न है।				
9.	indicating various stages of manufacturing from raw			Details attached at Annexure - F2.5 विवरण अनुलग्नक - F2.5में संलग्न है।				
	material to finished product including outsourced process, if							
		my फ्लोचार्ट सहित विनिर्माण प्रक्रिया निष्पादन योजना , जिसमें						
	आउटसोर्स प्रक्रिया, यदि कोई हो, सहित कच्चे माल से तैयार							
		उत्पाद तक विनिर्माण के विभिन्न चरणों को दर्शाया गया हो,						
10.			terial/Major Bought Out Item कच्चे ।		Details attai	ched at Anneyure – F	:2 ६ विवरण	
10.	_	/ खरीदे हुए मुख	,	11151 11	के Details attached at Annexure - F2.6 विवरण अनुलग्नक - F2.6में संलग्न है।		2.0 (44 < 1	
11.		0,0	rcised during receipt of raw materia	I/BOI.		ched at Annexure – F	:२ र विवरण	
11.		-	esting, packing कच्चे माल / खरीदे ह			tneu ut Annexure – F 2.7 पर संलग्न है	2.7 19939	
			रीक्षण, पैकिंग करते समय गुणवत्ता नि		अनुलग्नक - ह	2.7 पर सलग्न ह		
12.		ıfacturing faci			Details atta	ched at Annexure – F	2.8 विवरण	
	-		ecial process facilities, material handlin	-	अनुलग्नक - F2	2.8में संलग्न है।		
		•	ग्शीनों की सूची ,विशेष प्रक्रिया सुर्ि 	वधाए,				
		ो रख-रखाव अ	,					
13.			st of testing equipment) रीक्षण उपकरण की सूची)		Details attached at Annexure — F2.9 विवरण			
					अनुलग्नक – F2. 9 में संलग्न है।			
14.	-		process involves fabrication then	- याद	Applicable / Not applicable लागू / लागू नहीं			
-	निर्माण प्रक्रिया में फेब्रिकेशन की गई है तो- List of qualified Welders पात्र वेल्डर की सूची List of qualified NDT personnel with area of specialization		Details attached at Annexure — F2.10 विवरण					
-			अनुलग्नक - F2.10में संलग्न है।					
			(if applicable) लागू / लागू नहीं					
	विशेषज्ञता के क्षेत्र सहित पात्र एनडीटी कार्मिकों की सूची							
15.			d manufacturing processes with		Applicable / Not applicable लागू / लागू नहीं Details attached at AnnexureF2.11 विवरण अनुलग्नक - F2.10में संलग्न है।			
			nddresses सब-वेंडर द्वारा बाह्य स्रोतों	•				
	नामः	आर पत साहत)	से करवाएं गए निर्माण प्रक्रियाओं की	सूचा				
					(if applicable) (यदि लागू हो)			
16.	Supply reference list including recent supplies नवीनतम आपूर्ति सहित आपूर्ति संदर्भ सूची			नितम	Details attached at Annexure – F2.12			
				विवरण अनुलग्नक - F2.12 में संलग्न है। (as per format given below) (नीचे दिए गए प्रारूप के				
					(as per form अनुसार)	at given below) (नाच	द्रादए गए प्रारूप क	
Project		Customer	Supplied Item (Type/Rating/Model	PO ref	no/date पीओ	Supplied Quantity	Date of Supply	
packag		Name ग्राहक	/Capacity/Size etc) आपूर्ति की गई वस्तु	-	सं. / तिथि	आपूर्ति की मात्रा	आपूर्ति की तारीख	
परियो क्षेत्रेच	जना	का नाम	(प्रकार / रेटिंग / मॉडल /क्षमता /	,,,,,,				
/पैकेज			आकार आदि)					
, T				<u> </u>				
<i>17</i> .	Produ	-		dback	Attached at annexure - F2.13 अनुलग्नक F2. 3पर			
letter/certificates/End User Feedback उत्पाद के संतोषजनक संलग्न है			संलग्न है	ग्न है				
प्रदर्शन संबंधी फीडबैक पत्र / प्रमाण पत्र / अंतिम उपयोगकर्ता फ़ीडबैक								



18.	Summary of Type Test Report (Type Test	Details, F	Report No,	Applicable / Not applicable लागू / लागू नहीं				
	Agency, Date of testing) for the proposed product				ht are so the reason of the			
	(similar or higher rating) प्रस्तावित उत्पाद (एक समान या उच्च रेटिंग							
	वाले) के लिए टाइप टेस्ट रिपोर्ट (टाइप टेस्ट विवरण, रिपोर्ट संख्या,			Details attached at Annexure – F2.14 विवरण				
				अनुलग्नक - F2.1 4में संलग्न है				
	नोट: - रिपोर्ट प्रस्तुत करने की आवश्यकता नहीं है			जपुराक्षत्र - (2.1 44 राजक्र ह (if applicable) (यदि लागू हो)				
	Note:- Reports need not to be submitted			(іт аррііса	abie) (*	याद लागू हा)		
19.	Statutory / mandatory certification for th	ne propose	ed product	Applicable / Not applicable लागू / लागू नहीं			नहीं नहीं	
	प्रस्तावित उत्पाद के लिए वैधानिक / अनिव	ार्य प्रमाणी	करण				.\	
	,			Details attached at Annexure – F2.15				
				(if applicable) (यदि लागू हो)				
20.	Copy of ISO 9001 certificate आईएसओ 9001 प्रमाण पत्र की प्रति			Attached at Annexure – F2.16 अनुलग्नक में संलग्न -				
	(if available(यदि उपलब्ध हो)			F2.1 6 				
21.	Product technical catalogues for propose	d item (if	available)	Details attached at Annexure – F2.17 विवरण				
	प्रस्तावित मद के लिए उत्पाद तकनीकी कैटल	ॉग (यदि उ	पलब्ध हो)	अनुलग्नक - F2.1 7 में संलग्न है				
Name	2:	Desig:		S	Sign:		Date:	
नाम:		पदः		Į	हस्ता		तिथि:	
				٩	क्षर:			

Company's Seal/Stamp:- कंपनी की मुहर / मोहर: -