

Ref. Enquiry No.: PE/PG/RTC/E-6558/2020

Dated: 13.11.2020

**TENDER ENQUIRY THROUGH E-PROCUREMENT
(CONDITIONAL ENQUIRY)**

SUBJECT: TENDER ENQUIRY FOR FRAMEWORK AGREEMENT (RATE CONTRACT) OF THERMAL INSULATION-R MATTRESSES AS PER TECHNICAL SPECIFICATION NO. PE-TS-020-1169-M032 Rev. No.: 00

OUR REF: TENDER ENQUIRY NO: PE/PG/RTC/E-6558/2020, DTD-13.11.2020

DUE DATE – 24.11.2020, BY 11.00AM

Dear Sir/ Ma'am,

We are pleased to invite your offer for subject package in two parts strictly as per Clause-2.0 of "Instructions to Bidders" of GCC Rev 07. Please upload your best quotation/ offer on <https://eprocurebhel.co.in/> for the requirement strictly as per schedule of price format before above mentioned due date & time. The details of the tender enquiry are as mentioned below:

Sl. No	Description for which (Framework Agreement) Rate Contract is desired	Tentative Quantity	Delivery required
1	THERMAL INSULATION-R MATTRESSES - Refer Technical specification no PE-TS-020-1169-M032 Rev. No.: 00 for detailed description.	As per BOQ cum price schedule in Annexure-I) cumulative for the Prospective Projects as per Annexure-4 .	Within Four (04) months from the date of BHEL manufacturing clearance. Manufacturing clearance may be issued by BHEL lot-wise/unit-wise(s)/phase-wise.

Your best quotation/offer for the above requirement, in line with our terms and conditions, should be submitted online via e-procurement system. It shall be the responsibility of the bidder to ensure that the Tender is submitted on or before the due date by 11.00AM. Part-I bids shall be opened at 4.00PM on due date through e-procurement Portal.

Detailed Tender documents can be downloaded from the following websites: -

- a) <https://eprocurebhel.co.in/> b) www.bhel.com c) www.bhelpem.com

Tender submission through e-procurement portal- <https://eprocurebhel.co.in/>

Note: -

1. Please note that Part Supplies offered for tender BOQ shall disqualify the bidder's offer.
2. Documents and Credential as per Technical PQR, Techno Commercial Bids and Price Bids should be uploaded on the e-procurement portal.
3. Bidders to ensure that Third party/customer issued certificates being submitted as proof of PQR qualification should have verifiable details of document/certificate issuing authority such as name & designation of Issuing Authority and its organisation contact number and email id etc. In case the same found not available, Purchaser has right to reject such document from evaluation.
4. "This item/Package/System falls under the list of items defined in Para 3 of Ministry of Finance guideline datedt.20-09-2016 (procurement of items related to public safety, health, critical security operations and equipment's, etc.) & hence criteria of prior experience/turnover shall be same for all the bidders including start up/MSME".

Please refer GCC Rev-07 which is available on www.bhelpem.com. You are requested to kindly download the same.

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**TENDER ENQUIRY THROUGH E-PROCUREMENT
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TERMS AND CONDITIONS

1. This tender is being issued by BHEL PEM for Framework Agreement (Rate Contract) of THERMAL INSULATION-R MATTRESSES required at various BHEL project sites on behalf of various BHEL units. All bidders to note the following –
 - a) As and when requirement arises, the concerned unit of BHEL will place order directly on the supplier against the Framework Agreement (Rate Contract).
 - b) The drawings/ documents submission & approval, submission of BG, submission of invoices, processing and release of payment after supply of material shall be dealt as per Framework Agreement (Rate Contract) contract terms and shall be directly done with BHEL unit which has placed purchase order noted at sl.no. (a) above.
2. Bidders to note that their bid shall be conditional, subject to qualify PQR (technical) & registration in PEM and customer approval for subject package before price bid opening.
3. **Framework Agreement (Rate contract), on PVC basis, will be done for 2 years from placement of Framework Agreement (Rate contract) PO with a provision for further extension after review on mutual consent.**
4. **Framework Agreement (Rate contract) is proposed to be done with 2 vendors in ratio of 70:30 value wise at L1 FOR site price (Ex-works + freight) for this package. Splitting of Framework Agreement (Rate contract) between 2 vendors may be changed during project ordering process if any vendor in Framework Agreement (Rate Contract) is not approved by customer (i.e. BHEL may place order on any of the vendor in Framework Agreement (Rate Contract) up to total applicable Framework Agreement (Rate Contract) value in case of non-availability of customer approval for other vendor in Framework Agreement (Rate Contract)). However, order for a project shall not be split and the same shall be informed to bidders through NIT.**
5. **Framework Agreement (Rate Contract) will be finalized on total lump sum basis instead of item wise evaluation so that the complete requirement against one project is not split amongst various vendors to minimize operational difficulty.**

L1 Rates (Ex works + Freight) shall be counter offered to all bidders who participated in Price Bid Opening/RA for 30% value and in case acceptance of counter offer received from more than one vendor then acceptance shall be considered as per FINAL Price Bid Opening / Reverse Auction Ranking (as applicable). If none accepts L1 rates, Framework Agreement (Rate Contract) shall be done with L1 vendor for 100% value.
6. **PVC shall be applicable for the subject package. Also refer Annexure A. Total PVC shall be limited to + 10% of Ex-Works Value.**
7. Following clause will be applicable in line with MII circular Public Procurement (preference to make in India), order 2017 Rev dated-04.06.2020-

“For this procurement, the local content to categorize a supplier as Class I local supplier/ Class II local supplier/ Non Local supplier and purchase preference to Class I local supplier is as defined in Public Procurement (Preference to Make India), Order 2017 dated 04.06.2020 issued by DPIT. In case of subsequent order issued by nodal ministry changing the definition of local content for item in NIT, the same shall be applicable even if issued after issue of this NIT but before opening of part-II bids against this NIT.”

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Since this package falls under the category of goods, services or works in respect of which nodal ministry/ department has communicated that there is a sufficient local capacity and competition, **only Class-I local suppliers as defined in the order are eligible to bid.**

8. Following point to be noted regarding verification of local content-

The supplier at the time of tender, bidding or solicitation shall be required to provide self-certification that the item offered meets the minimum local content, in accordance with para 9 (b) of PP-MII order revision dated- 16.09.2020

Point no 8 & 9 above will supersede point no 26 of ITB of GCC Rev 07

9. Bidders to note the following: -

- i. Tender Evaluation - Evaluation will be done on overall L1 (Total Cost to BHEL excluding GST) basis with necessary loading as applicable i.e. **Evaluation will be on Ex Works + Freight basis** for this tender.
 - In case of PBO, the loading (technical/commercial), if any, shall be added by BHEL for evaluation.
 - In case of RA, the loading (technical/commercial), if any, shall be added by bidder while submitting the bid in reverse auction portal.
 - Ordering shall be done after de-loading the commercial/ technical loading from bidder's final price.
- ii. In the course of evaluation, if more than one bidder happens to occupy L-1 status, effective L-1 will be decided by soliciting discounts from the respective L-1 bidders. In case more than one bidder happens to occupy the L-1 status even after soliciting discounts, the L-1 bidder shall be decided by a toss / draw of lots, in the presence of the respective L-1 bidder(s) or their representative(s). Ranking will be done accordingly. BHEL's decision in such situations shall be final and binding.
- iii. **Bidder to give single % of freight charges considering anywhere in India in the freight column. Bidders have to give same % of freight for each line item.**
- iv. Bidders to mention applicable GST rate on (total Ex. works + freight) in the specified cells of price schedule on price form at e-procurement portal. However, may please note that GST shall not be considered in evaluation.
- v. Though evaluation is on Ex Works + Freight, but there is % allocation weightage against BOQ quantity of each item which shall be used for arriving at price break up. Bidders need to give only their total ex works price for given BOQ at the specific cells that has been kept opened in the price schedule available in the e-procurement portal (Grand Total ex works price). Price mentioned anywhere else in BOQ or price uploaded anywhere else in the e-procurement portal shall not be taken in cognizance.
- vi. Rest of the prices shall be derived by BHEL in line with allocation fixed for each item. There is formula applied in price schedule form available in e-procurement portal. As soon as bidder fills the cells for Total Ex works, freight percentage and GST percentage, rest values for e.g. unit ex works – item wise, total ex works – item wise, FOR site price – item wise will filled automatically.
- vii. For better clarity to the bidders where value is to be filled is kept open in price form at e-procurement portal and for other columns it will be locked which shall be derived by BHEL as per allocation fixed against each item.
- viii. HSN Code has been mentioned in Price Schedule.
- ix. Incomplete offer shall be summarily rejected.
- x. **PRE-QUALIFICATION REQUIREMENT: -**
Bidders is requested to fill up the details in "TECHNICAL PRE-QUALIFYING REQUIREMENT" as per the conditions mentioned in the PQR (technical) and also to submit the credentials.
Bids of only those bidders shall be evaluated who meet the Technical pre-qualifying requirements (if applicable). **Bidders to ensure that Third party/customer issued certificates being submitted as proof of PQR qualification should have verifiable details of document/certificate issuing authority such as name**

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& designation of Issuing Authority and its organisation contact number and email Id etc. In case the same found not available, Purchaser has right to reject such document from evaluation.

"This item/Package/System falls under the list of items defined in Para 3 of Ministry of Finance guideline datedt.20-09-2016 (procurement of items related to public safety, health, critical security operations and equipment's, etc.) & hence criteria of prior experience/turnover shall be same for all the bidders including start up/MSME".

- xi. Bidders to note that their bid shall be conditional subject to qualify PQR (technical) by registered vendors & customer approval & non-registered vendors have to qualify PQR (technical) & get registered with PEM as well customer approval for the package **before price bid opening**
For registration in PEM "Bidders needs to apply & get registered for subject package with PEM before P-2 (price bid opening) & hence you need to apply online for registration on PEM web portal & have to enclose acknowledgement with this effect with the bid documents else your bid may not be considered for evaluation"
- xii. This enquiry is subject to Conditions/ limits if any imposed in PMD / Vendor registration.
- xiii. Refer Annexure I for tentative quantity of subject package, required for prospective projects. Project list is indicative only, BHEL may ask for delivery anywhere in India for any of the project added in the prospective project/ existing projects during RC period. No minimum quantity is guaranteed by BHEL.
- xiv. Quantity variation shall be plus (+)30%. Bidders to note that the quantities indicated in the tender are tentative quantities. No minimum quantity is guaranteed by BHEL.
- xv. CIF allocation is not applicable for this tender. Bidder to quote accordingly.
- xvi. Tenderers must enclose the Quality Plan in the prescribed format, for approval. Equipment will be dispatched only after Purchaser's / Owner's inspection of the hold points specified in the approved Quality Plan and issue of Material Dispatch Clearance Certificate (MDCC).
- xvii. In case of joint bidding, bidders to furnish scope matrix which should be clearly defined between them along with the offer for the complete scope.
- xviii. **Integrity pact is applicable for this tender**
IP is a tool to ensure that activities and transactions between the Company and its Bidders/ Contractors are handled in a fair, transparent and corruption free manner. Following Independent External Monitors (IEMs) have been appointed by BHEL with the approval of CVC to oversee implementation of IP in BHEL.

Sl No.	IEM	Phone & Email
1.	Shri Arun Chandra Verma, IPS (Retd.)	acverma1@gmail.com
2.	Shri Virendra Bahadur Singh, IPS (Retd.)	ybsinghips@gmail.com

The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory) along with techno-commercial bid (Part-I, in case of two/three part bid). Only those bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into this pact would be a preliminary qualification. (Refer Annexure-IX for Integrity pact).

Please refer Section-8 of IP for Role and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to the any of the IEMs mentioned in the NIT. All correspondence with the IEMs shall be done through email only.

"No routine correspondence shall be addressed to the IEM (phone/ post/ email) regarding the clarifications, time extensions or any other administrative queries, etc. on the tender issued. All such clarification/ issues shall be addressed directly to the tender issuing (procurement) department officials whose contact details are provided above in NIT".

OTHER TERMS AND CONDITIONS

1. Procurement of the subject package shall be done through e-procurement
2. Offers should be uploaded in two parts online at <https://eprocurebhel.co.in/> in as follows:

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- a) Part-I Bid: - Documents and Credential as per Technical & Financial PQR and Techno-Commercial offer (along with un-priced copy of un-priced bid and un-priced schedule of Technical-Commercial Deviation, Annexure I & II)
- b) Part II Bid: - Price Bid and Priced schedule of Technical-Commercial Deviation
3. Terms and conditions: -
- a) Part I bid will be opened on date & time mentioned in the NIT or subsequent corrigenda/amendments, if any.
- b) **Techno-commercial offer of only those bidders shall be evaluated who will meet the Technical pre-qualifying requirement of the tender.**
- All the above Tender Documents shall automatically become a part of the Order/Contract after its finalisation.
4. Vendors shall quote in accordance with the requirements mentioned in the tender documents. In case of deviations (Technical/ Commercial), the same shall be highlighted separately giving Clause references along with the Cost of withdrawal of Deviations in e-procurement portal, along with reasons for taking such deviations.
Bidder to note all the points mentioned in "Notes" of cost of withdrawal sheet in e-procurement portal.
5. **Please note the following:**
- a. **Compliance to price form available at e-procurement portal.**
- b. **SCC enclosed for compliance.**
- GCC enclosed for compliance. GCC Rev-07 is available on www.bhelpem.com. You are requested to kindly download the same. Bidders are requested for furnishing compliance of these documents.**
6. Tenders shall be submitted strictly in accordance with the requirements of the above tender documents.
7. Standard pre-printed terms & conditions of the tenderers shall not be considered valid.
8. Validity of offer shall be as per cl.no.7(instruction to bidders) of GCC Rev 07.
9. Unsolicited fresh/revised Price Bids shall not be entertained.
10. Purchaser shall be under no obligation to accept the lowest or any other tender and shall be entitled to accept or reject any/all tender(s) in part or full without assigning any reason whatsoever.
11. Late tenders will be rejected.
12. Definition of Terms is also enclosed. These definitions will apply to all the tender documents including this Enquiry Letter.
13. Tenders and all correspondence thereof, shall be addressed to the undersigned by name & designation and sent at the following address:

Mr. AJAY JAIN, DGM, CMM
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: AJAY JAIN/ CMM
E-MAIL: ajayjain@bhel.in
Ph. No. 0120- 4368986 , 9871002977

Mr. SUMEET SAHAY, MGR, CMM
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: SUMEET SAHAY/ CMM
E-MAIL: sumeetsahay@bhel.in
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14. **Delivery: The following delivery term for project specific Purchase Orders which will be issued on the basis of subject Rate Contract will be: -**

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Within Four (04) months from the date of BHEL manufacturing clearance. Manufacturing clearance may be issued by BHEL lot-wise/unit-wise(s)/phase-wise.

BHEL Drawing No	Drawing Title	Primary/ Secondary	Drg Sch for Vendors
PE-QP-XXX-169-M032	QP FOR THERMAL INSULATION PIPE SECTION	Primary	R-0 within 14 days from PO & subsequent revisions incorporating all the BHEL comments within 10 days of comments received from BHEL. BHEL shall furnish comments / approval on each submission within 18 days from receipt.
PE-QP-XXX-169-M031	QP FOR THERMAL INSULATION R-MATRESS	Primary	

Please refer clause no 9 of Sec I Rev 00 Sheet 4 of 5 of Technical Specification no- PE-TS-020-169-M032 REV 00

Following to be made the part of NIT.

- The end period specified is for completion of the deliveries. Deliveries to start progressively so as to meet the completion schedule.
- The delivery conditions specified are for contractual LD purposes, however BHEL may ask for early deliveries without any compensation thereof.
- Non-applicable drawings shall be decided during bid evaluation
- Wherever schedule of drawings/documents submission / re-submission is stipulated in the Technical Specifications, same shall be superseded by delivery specified in NIT

- All other terms and conditions shall be as per GCC Rev 07 and Special Conditions of (Framework Agreement) Rate Contract. In the event of any contradiction in the terms and conditions mentioned, the order of preference shall be as mentioned in clause no 36 of GCTC of GCC (Rev.07).
- All the above Tender Documents shall automatically become a part of the Order/Contract after its finalization.
- All corrigenda, addenda, amendments, time extensions, clarifications etc. to the tender will be hosted on BHEL websites only (www.bhelpem.com, www.bhel.com & <https://eprocurebhel.co.in/> under subject tender reference. Bidders are requested to visit our websites from time to time to keep themselves updated.
- Bidders to submit their offers strictly in line with the form available at e-procurement portal.
- Inspection shall be done by BHEL/ END CUSTOMER/Third party Agency (finalized by BHEL).
- Foreign & indigenous bidders participating through open/limited tender will necessarily have to but class III DSCs issued by the certifying authorities in India. Basic procedure/ checklist is uploaded on www.bhel.com.
- Non- registered bidder to submit the credentials required for Registration in BHEL PEM: -
“Online Registration Portal is operational in BHEL. Non-registered Vendors, who wish to apply for registration with BHEL-PEM, have to apply through Online Registration Portal available at www.bhelpem.com - vendor section - Online Supplier Registration. All credentials and/or documents duly signed and stamped related to registration has to be uploaded on the website and submit the application for registration. One set of hard copy of the filled-up SRF downloaded from Online Registration Portal duly signed and stamped has to be submitted.”

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22. Purchaser reserves the right to split up the scope of the tender enquiry and place the orders for different scope/ items with different bidders and also increase or decrease the quantity.
23. RA guideline 2020 shall be applicable for this tender and same is available at http://www.bhel.com/vender_registration/pdf/Guidelines%20for%20Reverse%20Auction-2020.pdf
Bidders to note following point before quoting-
"BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on www.bhel.com) for this tender. RA shall be conducted among all the techno-commercially qualified bidders. Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered as initial bids of bidders in RA. In case any bidder(s) do(es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking."
Note: - Vendors to note that above RA clause will supersede clause no 13 of " Instruction to bidders " of GCC Rev-07.
"The Bidders has to quote the Single Price (i.e. Total Cost to BHEL) (excl. GST) in Reverse Auction. Price are to be inclusive of Packing & Forwarding charges, all the routine & type tests as per tender scope, Freight as applicable, including loading (if any) but excluding GST. De-loading (if any) shall be done in line with NIT terms.
24. If any bidder has mentioned the term Not Applicable / Not required / Not Quoted in bidding form. The bidder needs to substantiate the same. If the same item will be required in future for the system same will be supplied free of cost.
25. L1 bidder will have to submit Bank Guarantee for each POs (irrespective of value) which will be placed under the (Framework Agreement) Rate Contract finalised through this tender considering RC as original contract as per format mentioned in in GCC Rev 07.
26. Inline with Circular No. 15 of 2020-21 dated-08.09.2020 issued by SS&PCOM following terms will be mentioned in the NIT-
The evaluation currency for this tender shall be INR.
27. Restrictions under Rule 144(xi) of the General Financial Rules (GFRs), 2017
I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.
II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
III. "Bidder from a country which shares a land border with India" for the purpose of this Order means
a. An entity incorporated, established or registered in such a country; or
b. A subsidiary of an entity Incorporated. established or registered in such a country; or
c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
d. An entity whose beneficial owner is situated in such a country: or
e. An Indian (or other) agent of such an entity; or
f. A natural person who is a Citizen of such a country; or
g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.
IV. The beneficial owner for the purpose of (iii) above will be as under:

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1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means,

Explanation-

a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;

b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholder's agreements or voting agreements;

2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person

Note- The above clause shall not be applicable for the bidders from those countries (even if sharing a land order with India) to which the Government of India (GoI) has extended lines of credit or in which the GoI is engaged in development work.

Thanking you,
Yours faithfully,
For and on behalf of BHEL

(Signature of official with Name & Designation)

Enclosure:

1. Enquiry Terms & Conditions.
2. Price Schedule - Annexure-I to NIT (to be filled in e-procurement portal only)
3. Cost of withdrawal sheet - Annexure-II to NIT (to be filled in e-procurement portal only)
4. Technical Specifications.
5. Technical PQR
6. SCC – Annexure-III to NIT.
7. Prospective Project List – Annexure-IV to NIT
8. Bank Guarantee Format – Annexure-V to NIT.
9. Integrity Pact (IP) – Annexure-VI to NIT
10. Annexure A – PVC Formulae

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ANNEXURE I TO NIT NO.: PE/PG/RTC/E-6558/2020, DTD-13.11.2020
PRICE SCHEDULE FOR THERMAL INSULATION ROCKWOOL MATTRESSES
FRAMEWORK AGREEMENT (RATE CONTRACT)

NAME OF VENDOR - (Please fill vendor's name)

SL. NO.	ITEM DESCRIPTION	DENSITY (Kg/m3)	THK (mm)	Quantity for One Unit(m2)	UNIT EX- WORKS PRICE (DULY PACKED) OF TOTAL EX-WORKS PRICE (INR)	UNIT EX- WORKS PRICE (DULY PACKED) (INR)	FORMULA FOR TOTAL EX- WORKS PRICE (DULY PACKED) (INR)	TOTAL EX- WORKS PRICE (DULY PACKED) (INR)	FREIGHT CHARGES WITHOUT GST @ % OF TOTAL EX WORKS (INR)	APPLICABLE GST RATE % ON (TOTAL EX WORKS + FREIGHT) (INR)	TOTAL FOR SITE PRICE (INR)
1	2	3	4	5	6	7	8	9	10	11	12
A1	Bonded mineral (Rock) wool mattresses with one side GS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm GS wire	150	25	100	0.000223125	Derived	0.02231	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived
A2	Bonded mineral (Rock) wool mattresses with one side GS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm GS wire	150	40	950	0.000324041	Derived	0.30784	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived
A3	Bonded mineral (Rock) wool mattresses with one side GS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm GS wire	150	50	12950	0.000369397	Derived	4.78369	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived
A4	Bonded mineral (Rock) wool mattresses with one side GS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm GS wire	150	60	44150	0.000429433	Derived	18.95948	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived
A5	Bonded mineral (Rock) wool mattresses with one side GS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm GS wire	150	75	13500	0.000508596	Derived	6.86605	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived
B1	Bonded mineral (Rock) wool mattresses with one side SS wire netting of 13mm X 0.56 mm size stitched with 0.4mm SS wire	150	75	4850	0.000629004	Derived	3.05067	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived
C1	Bonded mineral (Rock) wool mattresses with one side GS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm GS wire.	100	25	2050	0.000169235	Derived	0.34693	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived
C2	Bonded mineral (Rock) wool mattresses with one side GS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm GS wire.	100	40	5265	0.000229276	Derived	1.20714	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived
C3	Bonded mineral (Rock) wool mattresses with one side GS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm GS wire.	100	50	45574	0.000269304	Derived	12.27324	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived
C4	Bonded mineral (Rock) wool mattresses with one side GS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm GS wire.	100	60	21850	0.000309328	Derived	6.75883	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived
C5	Bonded mineral (Rock) wool mattresses with one side GS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm GS wire.	100	75	56800	0.000369395	Derived	20.98163	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived
D1	Bonded mineral (Rock) wool mattresses with both side SS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm SS wire	150	40	170	0.000647276	Derived	0.11004	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived
D2	Bonded mineral (Rock) wool mattresses with both side SS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm SS wire	150	50	3450	0.000682472	Derived	2.35453	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived

<div>  <div> ANNEXURE I TO NIT NO.: PE/PG/RTC/E-6558/2020, DTD-13.11.2020 PRICE SCHEDULE FOR THERMAL INSULATION ROCKWOOL MATTRESSES FRAMEWORK AGREEMENT (RATE CONTRACT) </div> </div>											
NAME OF VENDOR - (Please fill vendor's name)											
SL. NO.	ITEM DESCRIPTION	DENSITY (Kg/m3)	THK (mm)	Quantity for One Unit(m2)	UNIT EX- WORKS PRICE (DULY PACKED) OF TOTAL EX-WORKS PRICE (INR)	UNIT EX- WORKS PRICE (DULY PACKED) (INR)	FORMULA FOR TOTAL EX- WORKS PRICE (DULY PACKED) (INR)	TOTAL EX- WORKS PRICE (DULY PACKED) (INR)	FREIGHT CHARGES WITHOUT GST @ % OF TOTAL EX WORKS (INR)	APPLICABLE GST RATE % ON (TOTAL EX WORKS + FREIGHT) (INR)	TOTAL FOR SITE PRICE (INR)
1	2	3	4	5	6	7	8	9	10	11	12
D3	Bonded mineral (Rock) wool mattresses with both side SS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm SS wire	150	60	11570	0.000739121	Derived	8.55164	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived
E1	Bonded mineral (Rock) wool mattresses with both side GS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm GS wire	100	40	35710	0.00028739	Derived	10.26270	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived
E2	Bonded mineral (Rock) wool mattresses with both side GS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm GS wire	100	50	9650	0.000327422	Derived	3.15962	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived
E3	Bonded mineral (Rock) wool mattresses with both side GS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm GS wire	100	60	10	0.000367428	Derived	0.00367	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived
F							100.0000	X= TO BE QUOTED (IN FIGURES)	Derived = Rs Y	Derived	Derived
X= TO BE QUOTED (IN WORDS)											
NOTE:-											
1. Bidder to note that evaluation shall be on Total Ex works price + Freight. Bidder to quote grand total Ex works value of the complete package (Sl. No F Column 9.i.e Rs X) only as per the BOQ above. The item wise break up of Ex works prices (unit as well as total) for all the items in the BOQ shall be derived as per the formulae indicated above by BHEL. Bidder also need to indicate Freight and GST rate in percentage in the respective column. Freight percentage to be quoted in percentage of Ex works value considering delivery anywhere in India.											
2 Value is to be filled only where "to be quoted" is mentioned and for other columns where "derived" is mentioned same shall be derived by BHEL as per % allocation fixed against each item											
3. Price mentioned anywhere else in BOQ shall not be taken in cognizance.											
4. For any clarification please refer Technical Specification No--PE-TS-020-169-M032 REV 00											
5. In case of Reverse Auction, vendor has to quote their Ex Works price+ Freight , that is price quoted above at Sl No-F, column 9 i.e. (Rs X) + Freight Value, Rs Y											
6. Quantity variation shall be +30%.											
7. The unit price quoted by bidder shall be binding for quantity variation which is at discretion of purchaser.											

**ANNEXURE-II: DEVIATION SHEET (COST OF WITHDRAWAL)****PACKAGE:- FRAMEWORK AGREEMENT (RATE CONTRACT) - THERMAL INSULATION ROCKWOOL MATTRESSES****TENDER ENQUIRY REF NO- NIT NO.: PE/PG/RTC/E-6558/2020, DTD-13.11.2020****NAME OF VENDOR:-**

SL NO	VOLUME/ SECTION	PAGE NO.	CLAUSE NO.	TECHNICAL SPECIFICATION/ TENDER DOCUMENT	COMPLETE DESCRIPTION OF DEVIATION	COST OF WITHDRAWAL OF DEVIATION	REFERENCE OF PRICE SCHEDULE ON WHICH COST OF WITHDRAWAL OF DEVIATION IS APPLICABLE	NATURE OF COST OF WITHDRAWAL OF DEVIATION (POSITIVE/ NEGATIVE)	REASONS FOR QUOTING DEVIATION
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TECHNICAL DEVIATIONS

COMMERCIAL DEVIATIONS

PARTICULARS OF BIDDERS/ AUTHORISED REPRESENTATIVE

NAME	DESIGNATIONS	SIGN & DATE

NOTES:

1. Cost of withdrawal of deviation will be applicable on the basic price (i.e. excluding taxes, duties & freight) only.
2. All the bidders have to list out all their Technical & Commercial Deviations (if any) in detail in the above format.
3. Any deviation not mentioned above and shown separately or found hidden in offer, will not be taken cognizance of.
4. Bidder shall submit duly filled unpriced copy of above format indicating "quoted" in "cost of withdrawal of deviation" column of the schedule above along with their Techno-commercial offer, wherever applicable. In the absence of same, such deviation(s) shall not be considered and offer shall be considered in total compliance to NIT.
5. Bidder shall furnish price copy of above format along with price bid.
6. The final decision of acceptance/ rejection of the deviations quoted by the bidder shall be at discretion of the Purchaser.
7. Bidders to note that any deviation (technical/commercial) not listed in above and asked after Part-I opening shall not be considered.
8. For deviations w.r.t. Credit Period, Liquidated damages, Firm prices if a bidder chooses not to give any cost of withdrawal of deviation loading as per Annexure-VII, will apply. For any other deviation mentioned in un-priced copy of this format submitted with Part-I bid but not mentioned in priced copy of this format submitted with Priced bid, the cost of withdrawal of deviation shall be taken as NIL.
9. Any deviation mentioned in priced copy of this format, but not mentioned in the un-priced copy, shall not be considered.
10. All techno-commercial terms and conditions of NIT shall be deemed to have been accepted by the bidder, other than those listed in unpriced copy of this format.
11. Cost of withdrawal is to be given separately for each deviation. In no event bidder should club cost of withdrawal of more than one deviation else cost of withdrawal of such deviations which have been clubbed together shall be considered as NIL.
12. In case nature of cost of withdrawal (positive/negative) is not specified it shall be assumed as positive.
13. In case of discrepancy in the nature of impact (positive/ negative), positive will be considered for evaluation and negative for ordering.

ANNEXURE III TO NIT NO.: PE/PG/RTC/E-6558/2020, DTD-13.11.2020**SPECIAL CONDITION OF FRAMEWORK AGREEMENT (RATE CONTRACT) - THERMAL INSULATION****ROCKWOOL MATTRESSES**

1. BHEL/PEM on behalf of various BHEL units intends to enter into (Framework Agreement) Rate Contract for supply of the tendered items for a period of two years. The (Framework Agreement) Rate Contract shall come into force from the date of issue of Purchase order for Rate Contract. Validity for ordering shall be two years from the purchase order for (Framework Agreement) Rate Contract.
2. For this specific tender, Purchaser word referred in GCC Rev 07 shall mean BHEL units which will place project specific purchase order to seller on the basis of framework agreement (rate contract) finalized with this tender.
3. Seller to use GSTIN number (wherever required) of Purchaser i.e. BHEL unit who will issue project specific purchase order. GSTIN number mentioned in GCC Rev 07 shall be applicable for all project specific purchase orders issued by BHEL PEM.
4. Clause no 7 of GCTC, GCC Rev 07 is applicable for project specific purchase orders issued by BHEL PEM. For other BHEL Unit who will issue project specific purchase order, their respective DMS for drgs/docs submission will be applicable.
5. Details of consignee and project site information for dispatch of material shall be intimated at the time of placement of PO for specific project after finalization of (Framework Agreement) Rate Contract
6. Transit Insurance is in BHEL scope
7. The items will be required against respective projects. Exact quantities and Project information shall be intimated while placing order for a specific project based on the (Framework Agreement) Rate Contract.
8. The prices shall be on PVC basis during the period of two years with a provision for further extension after review on mutual consent. All bidders to quote as per the Price Variation Formulae mentioned in PVC Annexure
9. Inspection of materials shall be carried out by BHEL/CQA and or by Customer or by an authorized agency at manufacture's works before dispatch, if required. Dispatch of material to be done, only after receipt of BHEL/Customer MDCC. It is responsibility of vendor to for obtain Material Dispatch Clearance Certificate (MDCC) from BHEL or Customer as required before dispatch of material.

Vendor shall give inspection call on BHEL-CQS web site to applicable inspection agency with a copy of inspection call to BHEL for arranging Customer participation (if applicable) in inspection / Joint inspection on the proposed date with an advance notice of 15 working days. Inspection charges shall be paid by BHEL.

Items have to be manufactured as per specification and supplied strictly in accordance with the approved BHEL / Customer's Drawings & Quality Plan. The items/ test certificate of items, which for any reason are not acceptable to BHEL / Customer, shall be required to be retested. No extra charge shall be payable on those account by BHEL.

10. Other terms and conditions shall be as per Standard Technical specification no, GCC Rev 07 & Enquiry letter.
11. This enquiry is subject to Conditions/ limits if any imposed in PMD/ Vendor registration.
12. Tentative quantity is given in enquiry.
13. Bidders to submit offer for (Framework Agreement) Rate Contract of said items ONLINE via e-Procurement System only. Bidder to upload tender documents complete in all respects duly signed & stamped on each and every page by the authorized signatory of the bidder as a token of acceptance of all the terms and conditions of tender.
14. The Bidder along with its associate/ collaborators/ sub-contractors/ sub-vendor/ consultants/ service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL web site <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud as soon as it comes to their notice.

ANNEX- 4 TO NIT NO.: PE/PG/RTC/E-6558/2020, DTD-13.11.2020
TENTATIVE PROJECT LIST
FRAMEWORK AGREEMENT (RATE CONTRACT) - THERMAL INSULATION
ROCKWOOL MATTRESSES

Sl.No	Name of Project
1	1X660MW PANKI



Bharat Heavy Electricals Limited
(A Govt. Of India Undertaking)
PROJECT ENGINEERING MANAGEMENT

**THERMAL INSUALTION-LRB (ROCKWOOL) MATTRESS/PIPESECTION for FRAMEWORK
AGRREMENT FOR 1X660MW PANKI TPP**

Price Variation Clause:

Ex-works prices shall be variable as per PVC formula given below:

$$\text{Current Price} = \text{Order Price} * (0.15 + 0.4 * M1/M0 + 0.15 * F1/F0 + 0.05 * S1/S0 + 0.25 * L1/L0)$$

Where

M0 = INDICES AS PER RBI BULLETIN TABLE 21 SL NO.: 1.3.13.2 (REFRACTORY PRODUCTS) FOR MONTH OF ORDERING.

M1 = INDICES AS PER RBI BULLETIN TABLE 21 SL NO.: 1.3.13.2 (REFRACTORY PRODUCTS) FOR 1 MONTH PRIOR TO DESPATCH.

F0 = INDICES AS PER RBI BULLETIN TABLE 21 SL NO.: 1.2 (FUEL & POWER) FOR MONTH OF ORDERING.

F1 = INDICES AS PER RBI BULLETIN TABLE 21 SL NO.: 1.2 (FUEL & POWER) FOR 1 MONTH PRIOR TO DESPATCH

S0 = INDICES AS PER RBI BULLETIN TABLE 21 SL NO.: 1.3.14.4 – (MILD STEEL-LONG PRODUCTS) FOR MONTH OF ORDERING.

S1 = INDICES AS PER RBI BULLETIN TABLE 21 SL NO.: 1.3.14.4 – (MILD STEEL-LONG PRODUCTS) FOR 1 MONTH PRIOR TO DESPATCH

L0 = INDICES AS PER RBI BULLETIN TABLE 19 (CONSUMER PRICE INDEX FOR INDUSTRIAL WORKERS) FOR MONTH OF ORDERING.

L1 = INDICES AS PER RBI BULLETIN TABLE 19 (CONSUMER PRICE INDEX FOR INDUSTRIAL WORKERS) FOR 1 MONTH PRIOR TO DESPATCH

Total PVC shall be limited to \pm 10% of Ex-Works Value.

Note: RBI Indices considered for refractory, Fuel & Power, Mild steel are as per base year 2011-12 and for Industrial worker as per base year 2001 of RBI Bulletin. The above PV Clause is subject to change based on latest RBI Bulletin.

BANK GUARANTEE FOR PERFORMANCE SECURITY

Bank Guarantee No: _____

Date: _____

To,

NAME
& ADDRESSES OF THE BENEFICIARY

Dear Sirs,

In consideration of the Bharat Heavy Electricals Limited 1 (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns) incorporated under the Companies Act, 1956 and having its registered office at1 through its Unit at..... (name of the Unit) having awarded to (Name of the Vendor / Contractor / Supplier) having its registered office at2 hereinafter referred to as the 'Vendor/Contractor/Supplier', which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns), a contract Ref No.....dated3 valued at Rs 4 (Rupees)/ FC (in words) for..... 5 (hereinafter called the 'Contract') and the Vendor/Contractor/Seller having agreed to provide a Contract Performance Guarantee, equivalent to % (.... Percent) of the said value of the Contract to the Employer for the faithful performance of the Contract,

we, , (hereinafter referred to as the Bank), having registered/Head office at and inter alia a branch at being the Guarantor under this Guarantee, hereby, irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer a maximum amount Rs 6 (Rupees) without any demur, immediately on first demand from the Employer and without any reservation, protest, and recourse and without the Employer needing to prove or demonstrate reasons for its such demand.

Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.

We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Vendor/Contractor/ Supplier in any suit or proceeding pending before any Court or Tribunal, Arbitrator or any other authority, our liability under this present being absolute and unequivocal.

The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment thereunder and the Vendor/Contractors/Supplier shall have no claim against us for making such payment.

We the bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract/satisfactory completion of the performance guarantee period as per the terms of the Contract and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged.

We BANK further agree with the Employer that the Employer shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend time of performance by the said Vendor/Contractor/Supplier from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said Vendor/Contractor/Supplier and to forbear or enforce any of the terms and conditions relating to the said Contract and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Vendor/Contractor/Supplier or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Vendor/Contractor/Supplier or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Vendor/Contractor/Supplier and notwithstanding any security or other guarantee that the Employer may have in relation to the Vendor/Contractor/Supplier 's liabilities.

This Guarantee shall remain in force up to and including..... 7 and shall be extended from time to time for such period as may be desired by Employer.

This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Vendor/Contractor/Supplier but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms thereof.

Unless a demand or claim under this guarantee is made on us in writing on or before the8 we shall be discharged from all liabilities under this guarantee thereafter.

We, BANK lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.

Notwithstanding anything to the contrary contained hereinabove:

- a. The liability of the Bank under this Guarantee shall not exceed6
- b. This Guarantee shall be valid up to7
- c. Unless the Bank is served a written claim or demand on or before..... 8 all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank.

We,Bank, have power to issue this Guarantee under law and the undersigned as a duly authorized person has full powers to sign this Guarantee on behalf of the Bank.

Dated..... ..

For and on behalf of

Place of Issue..... ..

(Name of the Bank)

1 NAME AND ADDRESS OF EMPLOYER i.e. Bharat Heavy Electricals Limited

2 NAME AND ADDRESS OF THE VENDOR / CONTRACTOR / SUPPLIER.

3 DETAILS ABOUT THE NOTICE OF AWARD/ CONTRACT REFERENCE

4 CONTRACT VALUE

5 PROJECT/SUPPLY DETAILS

6 BG AMOUNT IN FIGURES AND WORDS

7 VALIDITY DATE

8 DATE OF EXPIRY OF CLAIM PERIOD

Note:

1. Units are advised that expiry of claim period may be kept 3-6 months after validity date. It may be ensured that the same is in line with the agreement/ contract entered with the vendor.
2. The BG should be on Non-Judicial Stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the State(s) where the BG is submitted or is to be acted upon or the rate prevailing in the State where the BG was executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Vendor/Contractor/Supplier/Bank issuing the guarantee.
3. In line with the GCC, SCC and contractual terms, Unit may carry out minor modifications in the Standard BG Formats. If required, such modifications may be carried out after taking up appropriately with the Unit/Region's Law Deptt.
4. In Case of Bank Guarantees submitted by Foreign Vendors-
 - a) From Nationalized Public Sector 1 Private Sector/ Foreign Banks (BG issued by Branches in India) can be accepted subject to the condition that the Bank Guarantee should be enforceable in the town/ city or at nearest branch where the Unit (New Delhi for POs issued from PEM Noida/ PO issuing agency) is located i.e. Demand can be presented at the Branch located in the town/ city or at nearest branch where the Unit is located.
 - b) From Foreign Banks (wherein Foreign Vendors intend to provide BG from local branch of the Vendor country's Bank)
 - b.1 In such cases, in the Tender Enquiry/ Contract itself, it may be clearly specified that Bank Guarantee issued by **any of the Consortium Banks** only will be accepted by BHEL. As such, Foreign Vendor needs to make necessary arrangements for issuance of Counter- Guarantee by Foreign Bank in favour of the Indian Bank's (BHEL's Consortium Bank) branch in India. It is advisable that all charges for issuance of Bank Guarantee/ Counter- Guarantee should be borne by the Foreign Vendor. The tender stipulation should clearly specify these requirements.
 - b.2 In case, Foreign Vendors intend to provide BG from Overseas Branch of our Consortium Bank (e.g. if a BG is to be issued by SBI Frankfurt), the same is acceptable. However, the procedure at sl.no. b.1 will required to be followed.
 - b.3 The BG issued may preferably be subject to Uniform Rules for Demand Guarantees (URDG) 758 (as amended from time to time). The BG Format provided to them should clearly specify the same.

or & On behalf of Guarantee issuing bank

(Office Seal)

Name:

E-mail ID:

Contact number:

INTEGRITY PACT

Between

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi – 110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

and

_____, (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

Preamble

The Principal intends to award, under laid-down organizational procedures, contract/s for

_____. The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint Independent External Monitor(s), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 – Commitments of the Principal

1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles: -

1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.

1.1.3 The Principal will exclude from the process all known prejudiced persons.

1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section 2 – Commitments of the Bidder(s)/ Contractor(s)

2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he / she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.



2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant IPC/ PC Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

2.1.4 Foreign Bidder(s)/ Contractor(s) shall disclose the name and address of agents and representatives in India and Indian Bidder(s)/ Contractor(s) to disclose their foreign principals or associates. The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

2.3 The Bidder(s)/ Contractor(s) shall not approach the Courts while representing the matters to IEMs and will await their decision in the matter.

Section 3 – Disqualification from tender process & exclusion from future contracts

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors". framed by the Principal.

Section 4 – Compensation for Damages

4.1 If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent Earnest Money Deposit/Bid Security.

4.2 If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/Performance Bank Guarantee, whichever is higher.

Section 5 – Previous Transgression

5.1 The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.

5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section 6 – Equal treatment of all Bidders/ Contractors/ Sub-contractors

6.1 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors. In case of sub-contracting, the Principal contractor shall be responsible for the adoption of IP by his sub-contractors and shall continue to remain responsible for any default by his sub-contractors.

6.2 The Principal will disqualify from the tender process all bidders who do not sign this pact or violate its provisions.

Section 7 – Criminal Charges against violating Bidders / Contractors / Sub-contractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.



Section 8 –Independent External Monitor(s)

8.1 The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

8.2 The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.

8.3 The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/ Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s) / Sub-contractor(s) with confidentiality in line with Non-disclosure agreement.

8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

8.5 The role of IEMs is advisory, would not be legally binding and it is restricted to resolving issues raised by an intending bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some bidders. At the same time, it must be understood that IEMs are not consultants to the Management. Their role is independent in nature and the advice once tendered would not be subject to review at the request of the organization.

8.6 For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process, the matter should be examined by the full panel of IEMs jointly as far as possible, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.

8.7 The IEMs would examine all complaints received by them and give their recommendations/ views to CMD, BHEL, at the earliest. They may also send their report directly to the CVO and the Commission, in case of suspicion of serious irregularities requiring legal/ administrative action. IEMs will tender their advice on the complaints within 10 days as far as possible.

8.8 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.

8.9 IEM should examine the process integrity, they are not expected to concern themselves with fixing of responsibility of officers. Complaints alleging mala fide on the part of any officer of the organization should be looked into by the CVO of the concerned organization.

8.10 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant Indian Penal Code/ Prevention of Corruption Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

8.11 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.

8.12 The word 'Monitor' would include both singular and plural.

Section 9 – Pact Duration

9.1 This Pact shall be operative from the date IP is signed by both the parties till the final completion of contract for successful bidder and for all other bidders 6 months after the contract has been awarded. Issues like warranty/ guarantee etc. should be outside the purview of IEMs.

9.2 If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified as above, unless it is discharged/ determined by the CMD, BHEL.

Section 10 – Other Provisions

10.1 This agreement is subject to Indian Laws and jurisdiction shall be registered office of the Principal, i.e. New Delhi.



10.2 Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

10.3 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

10.4 Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

10.5 Only those bidders/ contractors who have entered into this agreement with the Principal would be competent to participate in the bidding. In other words, entering into this agreement would be a preliminary qualification.

SUMIT SAHAY
सुमीत साहय (सी.एम.एम.) / Dy. Manager (CMM)
शरत भार्गव (सी.एम.एम.) / Sheral Heavy Electric Ltd.
भारत केवी इलेक्ट्रिकल्स लिमिटेड / Bharat Heavy Electric Ltd.
प्राइमरी सेक्टर - प्रोजेक्ट एंजिनियरिंग मैनेजमेंट
Power Sector-Project Engineering Management
एन.पी.ई. बिल्डिंग - 16 & 17, प्लॉट नं. 201301
For & On behalf of the Principal
(Office Seal)

For & On behalf of the Bidder/ Contractor
(Office Seal)

Place _____

Date _____

Witness: _____

(Name & Address) AJAY JAIN

BHEL-PEM, NOIDA

Witness: _____

(Name & Address) _____

**PRE - QUALIFYING REQUIREMENTS**

DOCUMENT NO: PE-TS-020-000-M053

REVISION NO: 00, DATE: 12.10.2020

SHEET: 1 of 3

Standard document No.:PE-TS-999-000-M053

Enquiry No. (To be filled by PG):**Project: FRAMEWORK AGREEMENT FOR 1X660MW PANKI TPP.****Package: Thermal Insulation - Bonded Mineral (Rock) Wool Mattresses****CRITERIA FOR EVALUATION (TECHNICAL / FINANCIAL):****1. Technical Pre-Qualifying Requirements:**

- 1.1 The bidder (including cases as defined in clause no. 2.1 below) should have designed, in-house manufactured, tested, inspected and supplied thermal insulation - Bonded mineral (rock) wool mattresses for use in a power plant or for similar application.

Supply of material through requisite tie-up with specified manufacturing unit(s) shall also be acceptable. In such cases, tied up manufacturing unit(s) shall be binding for the contract and bidder shall meet PQR pertaining to all manufacturing units individually. Manufacturing units quoting through such tie-up shall not be eligible to quote separately or through any other tie-up.

Bidder to provide authorization letter from manufacturing units along with scope matrix in support of such Tie-up.

Manufacturing units, which have tie-up with parties quoting to BHEL, shall not be qualified for separately quoting to BHEL.

- 1.2 The item(s) mentioned in point 1.1 should have performed successfully in similar installations for atleast one year. To establish meeting this requirement, the bidder shall conform to any one of the following clauses:

- (i) Execution of two purchase orders for different End-users with the item(s) performing successfully for one (1) year from date of commissioning to the date of bid submission as defined by BHEL-PEM in NIT. Different projects of a customer shall be considered as different End-users.
- (ii) Minimum one (1) repeat contract from two (2) different Purchasers (i.e. 2 Nos of Purchase orders from each purchaser). A contract shall be considered as repeat, when the second contract is given by the same purchaser after lapse of minimum one (1) year from supply completion of first contract.
- (iii) Execution of one (1) purchase order as per sl. no. (i) above from one End-user and one (1) repeat contract from another Purchaser as per sl. No. (ii) above.
- (iv) Three (3) repeat contracts from one (1) Purchaser. Second and third repeat contract shall be after lapse of minimum one (1) & two (2) years respectively from supply completion of first contract.

PREPARED BY:

NAME: SHIV BAHADUR VERMA
DESIGNATION: DY. MGR.
DEPT.: PS-PEM/ MPL

REVIEWED BY:

NAME: KULDEEP KUMAR
DESIGNATION: MGR.
DEPT.: PS-PEM/ MPL

APPROVED BY:

NAME: B.K. AGARWAL
DESIGNATION: DH
DEPT.: PS-PEM/ MPL



PRE - QUALIFYING REQUIREMENTS

DOCUMENT NO: PE-TS-020-000-M053

REVISION NO: 00, DATE: 12.10.2020

SHEET: 2 of 3

1.3 The bidder to furnish the following documents, as applicable, in support of the above:

- a) For point 1.2(i): Performance certificates from End-user (duly signed & dated) specifying that the product is performing successfully for one (1) year from date of commissioning along with correlated purchase order(s).
- b) For point 1.2 (ii) & (iv): Purchase order(s), Material dispatch clearance certificate (MDCC)/ Material receipt certificate (MRC)/Lorry receipt (LR)/ Supply invoice.

1.4 In addition to above, bidder or its tied up manufacturing units should have the following facilities:

- a) In-house capability of manufacturing thermal insulation - Bonded mineral (rock) wool mattresses of minimum 250 MT per month.
- b) In-house testing facilities for carrying out tests as per relevant standards & Quality plan. In case, the in-house testing facilities are not available, then bidder shall furnish undertaking that test(s) will be carried out from govt. approved lab or test house recognized by reputed customers.

Bidder to submit supporting documents (Certificate indicating capacity and details/ undertaking of manufacturing & testing facilities) for point (a) & (b) above.

1.5 To establish business continuity, bidder to submit minimum two (2) Purchase order for item(s) as specified in points 1.1 in last 3 (three) years prior to the date of bid submission defined by BHEL-PEM.

2.0 Bidder to also comply with general points mentioned below.

2.1 Offers of the JV companies/ Joint Bidders/ bidders having collaboration/ licensing agreement/ MOU/ Indian subsidiaries shall be evaluated as follows:

- a) If bidder happens to be an Indian subsidiaries of foreign OEM, then the credentials of the foreign OEM can also be considered for meeting PQR.
- b) If bidder happens to be the Joint Venture Company, then the credentials of any of JV partners can be also considered for meeting PQR.
- c) If bidder happens to be the having valid collaboration agreement/ MOU/ licensing agreement with some other company, then the credentials of collaborator/ MOU partner/ licensing company can also be considered for meeting PQR.

Note: If bidder(s) qualifies on the basis of credentials of his principal/ JV partner/ Collaborator/ joint bidder etc., then the principal/ JV partner/ Collaborator/ MOU partner/ joint bidder shall be responsible for overall design vetting and warranty/ guarantee of the package. The scope

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PRE - QUALIFYING REQUIREMENTS

DOCUMENT NO: PE-TS-020-000-M053

REVISION NO: 00, DATE: 12.10.2020

SHEET: 3 of 3

matrix clearly defining their respective roles including design vetting, manufacturing of critical component, E&C etc. and warranty/ guarantee shall be submitted along with the offer.

2.2 Bidder to note that the arrangement of bidding (joint bid partners/ collaborator/ MOU partner/licensing company etc.) once offered to BHEL as a part of bidding documents cannot be changed till the execution of contract(s).

2.3 Consideration of offer shall be subject to customer's approval of bidders, if applicable.

2.4 Bidder to submit all supporting documents in English. If documents submitted by bidder are in language other than English, a self-attested English translated document should also be submitted.

2.5 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.

2.6 After satisfactory fulfilment of all the above criteria/ requirement, offer shall be considered for further evaluation as per NIT and all the other terms of the tender.

2.7 Bidder to ensure that Third Party/customer issued certificates being submitted as proof of PQR qualification should have verifiable details of document/ certificate issuing authority such as name & designation of issuing authority and its organization contact number and email-id etc. In case the same found not available, purchaser has right to reject such document from evaluation.

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DESIGNATION: DH
DEPT.: PS-PEM/ MPL


**FRAMEWORK AGREEMENT
FOR
THERMAL INSULATION-R MATTRESSES
(1X660MW PANKI)**

**TECHNICAL SPECIFICATION
FOR
BONDED MINERAL (ROCK) WOOL MATTRESSES)**

**SPECIFICATION NO. PE-TS-020-1169-M032
Rev. No.: 00**



**BHARAT HEAVY ELECTRICALS LIMITED, POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA, INDIA**

	TECHNICAL SPECIFICATION BONDED MINERAL (ROCK) WOOL MATTRESSES FRAMEWORK AGREEMENT FOR 1X660MW PANKI TPP		SPECIFICATION NO. PE-TS-020-169-M032
			REV. NO.: 00 DATE: 12.10.2020
	SHEET 1 OF 1		


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SECTION – II

- DATA SHET- A
- QUALITY PLAN
- COMPLIANCE SHEET#

	SPECIFIC TECHNICAL REQUIREMENT FOR BONDED MINERAL (ROCK) WOOL MATTRESSES	SPECIFICATION NO:PE-TS-020-169-M032
		SECTION : I
		REV. NO. 00
		DATE: 12.10.2020
		SHEET 1 OF 5

1.00.00 GENERAL

This specification covers the requirements of manufacture, physical & chemical properties, inspection & testing and packing for supply of bonded mineral (rock) wool mattresses having metallic hexagonal wire netting as facing on one or both side, suitable for service temperatures up to 750 deg C.

2.00.00 CODES AND STANDARDS

2.01.00 INDIAN STANDARD

- 2.01.01 The manufacture, physical & chemical properties, inspection and testing of the bonded mineral rock wool mattresses shall conform to the latest editions of the following appropriate standards.
- 2.01.02 IS: 8183 Specification for bonded mineral wool.
- 2.01.03 IS: 3144 Methods of test for mineral wool thermal insulation materials.
- 2.01.04 IS: 3346 Methods for the determination of thermal conductivity of thermal insulation materials (two slab, guarded hot plate method).
- 2.02.00 In case of any conflict between the above standards and this specification, the latter shall be final.

3.00.00 MANUFACTURE


- 3.01.00 The mattresses shall be made from rock processed from a molten state into fibrous form with minimum organic thermosetting binder, and shall be machine felted, baked and metallic stitched / faced with metallic hexagonal wire netting on one or both sides (as specified in the BOM).
- 3.02.00 The metallic hexagonal wire netting shall be of Galvanized steel (made from wire conforming to IS: 280 medium coated to IS: 4826) / Stainless steel (made from wire to IS: 6528) having wire size and aperture conforming to IS: 3150, as specified in the BOM.
- 3.03.00 The mattress shall be continuously stitched / tied on to the wire netting with minimum 0.4 mm dia. galvanized steel / stainless steel wire, as specified in the BOM. The spacing between the stitching / ties shall not be more than 250 mm along the width and 150 mm along the length.

4.00.00 DIMENSIONS AND DIMENSIONAL TOLERANCES

- 4.01.00 The length and width of the mattresses shall be 1520 mm x 1220 mm or 1640 mm x 1220 mm. Nominal thickness shall be 25, 40, 50, 60, 70, 75 or 80 mm.
- 4.02.00 The method of measuring the dimensions i.e. length, width and thickness shall be as prescribed in IS: 3144. Tolerance on length and width shall be as per IS:8183. Tolerance on thickness shall be +6mm/-2mm.

5.00.00 BULK DENSITY AND TOLERANCES ON DENSITY

- 5.01.00 The bulk density of the bonded mineral (rock) wool mattresses without the facings, shall be 150 / 100 kg/m³ unless otherwise specified. Tolerances on bulk density shall be +15 % and - 5% when tested as per method prescribed in IS: 3144.

	SPECIFIC TECHNICAL REQUIREMENT FOR BONDED MINERAL (ROCK) WOOL MATTRESSES	SPECIFICATION NO:PE-TS-020-169-M032
		SECTION : I
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6.00.00 MATERIAL PROPERTIES

6.01.00 SHOT CONTENT:

The method for determination of shot content shall be as prescribed in IS: 3144. The maximum shot content shall be 5% by weight.

Any shot present in the materials shall not be greater than 5 mm in any dimension.

6.02.00 THERMAL CONDUCTIVITY

The thermal conductivity (k-value) of the bonded mineral wool mattresses shall not exceed the values given in IS: 8183 Latest when determined in accordance with the method prescribed in IS: 3346.

K' Value test (for minimum three mean temperatures i.e. 100°C, 200°C & 300°C) results to be provided to BHEL for acceptance in accordance with conditions given below: -

If 'K' Value test has been conducted against any BHEL order, on sample collected within 12 months prior to the date of present inspection, the related test results may be provided. Otherwise, the test will be carried out on samples identified and sealed by customer / BHEL authorized representative and related test results to be provided. The test will be carried out at govt. approved labs or test houses (at CBRI – Roorkee, IIT – Chennai, PIBCO R & D Centre - N. Delhi, NIRMA University, Ahmedabad) recognized by reputed customers.


6.03.00 HEAT RESISTANCE

When a sample of mattress is heated to the maximum recommended temperature of use (550 °C for 100 kg/m³ density and 750 °C for 150 kg/m³ density) as per method prescribed in IS:3144 (test for maximum recommended temp), the material shall not suffer visible deterioration of the fibrous structure, any fusion of fibers and shall not show any evidence of internal self-heating. Any colour change shall not be considered as visible deterioration in fibrous structure.

6.04.00 OTHER TESTS

The following tests are to be conducted as per IS:3144/IS:8183 and the acceptance norms shall be as per IS:8183.

- Moisture content
- Moisture Absorption
- Incombustibility
- Sulphur content
- Recovery after Compression
- Alkalinity

	SPECIFIC TECHNICAL REQUIREMENT FOR BONDED MINERAL (ROCK) WOOL MATTRESSES	SPECIFICATION NO:PE-TS-020-169-M032
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- g. Chloride Content
- h. Fibre Diameter
- i. Resistance to vibration
- j. Resistance to jolting

7.00.00 PACKING AND MARKING

7.01.00 Stack of mattresses shall be packed in unfolded condition and sealed in polythene bags of at least 0.2mm thickness. Then the sealed bags shall be put inside the polythene lined HDPE or HDPP Woven netting bags and sealed by machine stitching.

To account for looseness in packing (if any) due to machine stitching, the bags shall be properly stacked and tightly fastened during transportation to avoid any possible damage due to relative movements. Sharp edges of wire netting shall be bent inwards to avoid damage to packing.


7.02.00 Each bag of mattresses shall be serial numbered. Also, printed sheets indicating the nominal thickness, density and wire netting details (i.e. material and size) shall be placed below the wire netting.

7.03.00 For easy identification of mattresses as per density & wire netting material, following colour codes for the HDPE bags is to be followed:

- a) Yellow bags with marking as shown in Fig 1 (Page 5 of 5) for 150 kg/m³ with Galvanized steel wire netting
- b) White bags with marking as shown in Fig 1 (Page 5 of 5) for 100 kg/m³ with Galvanized steel wire netting
- c) Yellow bags with marking as shown in Fig 1 (Page 5 of 5) for 150 kg/m³ with SS wire netting
- d) In case of both side SS/ GS wire meshing, additional marking "BOTH SIDE MESH" is to be provided.

7.04.00 Following details shall be legibly and indelibly marked on the packages.

- a) Project Name
- b) Vendor name:
- c) Purchase Order No. and Date
- d) Sl. No. of package/Batch No:
- e) Size of mattresses (Thickness x Length x Width)
- f) Density of mattresses
- f) Wire netting material and size
- g) Weight of the package
- h) No. of mattresses in the package
- i) A caution note "Always store under covered shed and on raised platforms"

	SPECIFIC TECHNICAL REQUIREMENT FOR BONDED MINERAL (ROCK) WOOL MATTRESSES	SPECIFICATION NO:PE-TS-020-169-M032
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8.00.00 INSPECTION AND TESTING

- 8.01.00 Bonded mineral wool mattresses to be supplied under this specification shall be of tested quality and workmanship. Inspection and testing of thermal insulation materials shall be as per this specification / quality plan enclosed. Manufacturer shall conduct all tests and stage inspections as per the approved quality plan to ensure that the material conforms to the requirements of this specification and of applicable standards. All shop tests shall be conducted in the presence of BHEL's / BHEL's customer's representative, on the samples identified by him / them.
- 8.02.00 The Quality Plan enclosed with this specification specifies minimum quality control requirement. During contract stage vendor shall furnish this Quality Plan duly signed & stamped for BHEL approval. Quality plan shall be approved by BHEL and customer. Inspection and testing shall be carried out as per Quality Plan by BHEL/ BHEL representative and customer (as applicable). In case inspection is by both BHEL and their customer, then the inspection can be carried out jointly or separately, which will be informed later. In case of the foreign bidder, inspection shall be carried out by reputed third party.
- 8.03.00 The charges for third party inspection (Lloyds, TUV or equivalent) for foreign bidders shall be included in the base price of the item by the bidder. This third party agency shall be approved by BHEL. Bidder to inform the same in the offer and mention the same in Quality Plan.

Note: There may be minor changes in quality plan depending on customer/consultant comments which will HAVE TO BE ACCOMMODATED BY VENDOR AT NO EXTRA COST.

9.00.00 DOCUMENTS TO BE SUBMITTED AFTER AWARD OF CONTRACT:

1. Quality plan duly signed and stamped.
2. Datasheet for Approval by BHEL/Customer.

Approval of Quality plan/ Data sheet shall be required for manufacturing clearance and the same shall be considered for delay analysis by BHEL.



SPECIFIC TECHNICAL REQUIREMENT FOR BONDED MINERAL (ROCK) WOOL MATTRESSES

SPECIFICATION NO: PE-TS-020-169-M032

SECTION : I

REV. NO. 00

DATE: 12.10.2020

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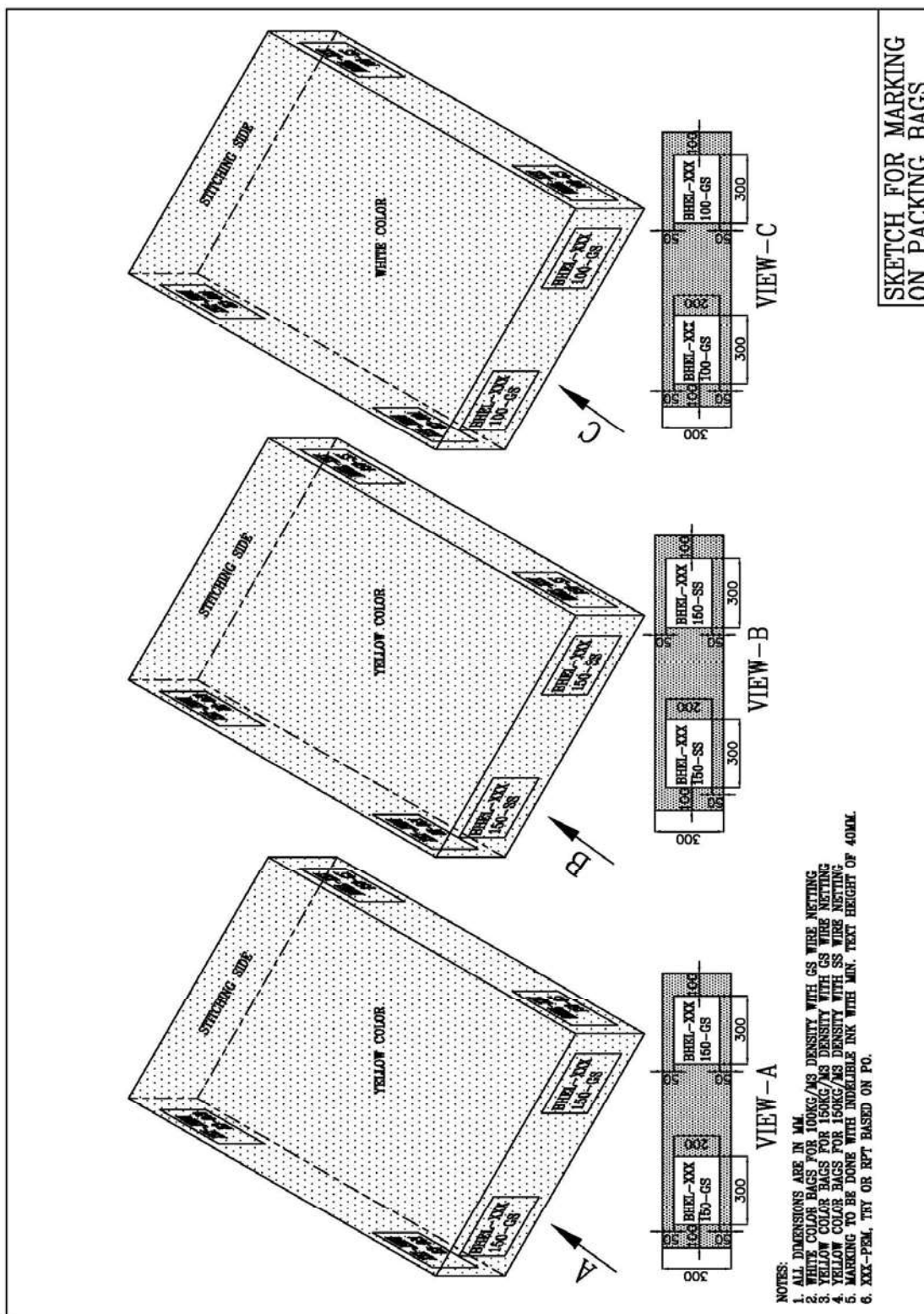



Fig 1: Sketch for marking on bags


	DATA SHEET- A		SPECIFICATION NO. PE-TS-020-169-M032
	BONDED MINERAL (ROCK) WOOL MATTRESS		SECTION: II
	FRAMEWORK AGREEMENT FOR 1X660MW PANKI TPP		REV. NO.: 00 DATE: 12.10.2020
			SHEET 1 OF 1

B.O.M.

S.No	MATERIAL	DENSITY(Kg/m3)	THK(mm)	Quantity for One Unit(m2)
1	Bonded mineral (Rock) wool mattresses with one side GS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm GS wire	150	25	100
			40	950
			50	12950
			60	44150
			75	13500
2	Bonded mineral (Rock) wool mattresses with one side SS wire netting of 13mm X 0.56 mm size stitched with 0.4mm SS wire	150	75	4850
3	Bonded mineral (Rock) wool mattresses with one side GS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm GS wire.	100	25	2050
			40	5265
			50	45574
			60	21850
			75	56800
4	Bonded mineral (Rock) wool mattresses with both side SS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm SS wire	150	40	170
			50	3450
			60	11570
5	Bonded mineral (Rock) wool mattresses with both side GS wire netting of 13 mm x 0.56 mm size stitched with 0.4 mm GS wire	100	40	35710
			50	9650
			60	10

Note:

Quantity tolerance shall be (+)0/ (-)15 m² for each density/thickness.


	MANUFACTURER/BIDDER/VENDOR NAME & ADDRESS		STANDARD QUALITY PLAN				SPEC. NO : PE-TS-020-169-M032		DATE: 12.10.2020	
	BHEL/Customer Approved Suppliers		CUSTOMER : UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LTD.				QP NO.: PE-QP-020-169-M032		DATE: 12.10.2020	
			PROJECT: FRAMEWORK AGRREMENT FOR 1X660MW PANKI TPP				PO NO.:		DATE:	
			ITEM: THERMAL INSULATION – RESIN BONDED MINERAL (ROCK) WOOL MATTRESSES				SECTION:		SHEET 1 OF 3	
SL NO.	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY	REMARKS
1	2	3	4	5	M6C/N	7	8	9**D	M**C**N	10

1.0 MATERIAL														
1.1	CHEMICAL COMPOSITION (RAW MATERIAL)	CHEMICAL PROPERTIES	MA	CHEMICAL	ONE SAMPLE PER LOT	ONE SAMPLE PER LOT	MANUFACTURER STANDARD	MANUFACTURER STANDARD	TC	✓	P	V	V	
1.2	GS WIRE	1.DIMENSIONS#	MA	MEASUREMENT	IS 3150 Appendix A	IS 3150 Appendix A	IS 3150	IS 3150/ BHEL/CUSTOMER APPROVED DATA SHEET	IR	✓	P	W #	V	#Witness shall be carried out at the stage of Clause 3.1.
		2.GAUGE DIAMETER	MA	MEASUREMENT			IS 280	BHEL/CUSTOMER APPROVED DATA SHEET	IR	✓	P	W #	V	
		3. CHEMICAL	MA	LAB. TEST			IS 280	IS 7887	TC	✓	P	V	V	
		4. COATING TEST	MA	LAB. TEST			IS 280	IS 4826	TC	✓	P	V	V	
		5. TENSILE TEST	MA	LAB. TEST			IS 280	IS 280	TC	✓	P	V	V	
		6. WRAPPING TEST	MA	LAB. TEST			IS 280	IS 280	TC	✓	P	V	V	
		7. BEND TEST	MA	LAB. TEST			IS 280	IS 280	TC	✓	P	V	V	
1.3	SS WIRE	1.DIMENSIONS#	MA	MEASUREMENT	IS 6528	IS 6528	IS 3150	IS 3150/ BHEL/CUSTOMER APPROVED DATA SHEET	IR	✓	P	W #	V	#Witness shall be carried out at the stage of Clause 3.1.
		2.GAUGE DIAMETER	MA	MEASUREMENT	IS 3150	IS 3150	IS 6528	BHEL/CUSTOMER APPROVED DATA SHEET	IR	✓	P	W #	V	
		3.CHEMICAL ANALYSIS	MA	LAB. TEST	16 6528	IS 6258	IS 6528	IS 6528	TC	✓	P	V	V	
		4.TENSILE TEST	MA	LAB. TEST	IS 6528	IS 6528	IS 6528	IS 6528	TC	✓	P	V	V	
		5. REVERSE BEND TEST	MA	LAB. TEST	IS 6528	IS 6528	IS 6528	IS 6528	TC	✓	P	V	V	
		6. WRAPPING TEST	MA	LAB. TEST	IS 6528	IS 6528	IS 6528	IS 6528	TC	✓	P	V	V	
		7. TORSION TEST	MA	LAB. TEST	IS 6528	IS 6528	IS 6528	IS 6528	TC	✓	P	V	V	
2.0 IN-PROCESS INSPECTION														
1.1	FINISHED MATTRESS	DIMENSION & TOLERANCE	MA	MEASUREME NT	IS 8183	IS 8183	IS 3144	IS 8183/ BHEL/CUSTOMER APPROVED DATA SHEET	TC	✓	P	V	V	
3.0 FINAL INSPECTION														

BHEL				
ENGINEERING		QUALITY		
Prepared by:	Sign & Date	Name	Sign & Date	Name
Reviewed by:		S B Verma	Checked by:	K K Yadav
		Kuldeep Kumar	Reviewed by:	R K Jaiswal

BIDDER/ SUPPLIER	
Sign & Date	
Seal	

FOR CUSTOMER REVIEW & APPROVAL				
Doc No:		Sign & Date	Name	Seal
Reviewed by:				
Approved by:				

	MANUFACTURER/BIDDER/VENDOR NAME & ADDRESS		STANDARD QUALITY PLAN				SPEC. NO : PE-TS-020-169-M032		DATE: 12.10.2020	
	BHEL/Customer Approved Suppliers		CUSTOMER : UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LTD.				QP NO.: PE-QP-020-169-M032		DATE: 12.10.2020	
			PROJECT: FRAMEWORK AGREEMENT FOR 1X660MW PANKI TPP				PO NO.:		DATE:	
			ITEM: THERMAL INSULATION – RESIN BONDED MINERAL (ROCK) WOOL MATTRESSES				SECTION:		SHEET 3 OF 3	
SL NO.	COMPONENT & OPERATIONS	CHARACTERIST-ICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY	REMARKS
1	2	3	4	5	6	7	8	9	* D	10
					M	C/N			M C N	

NOTES:

- In case of foreign supplier, all test certificates shall be furnished by the supplier, duly witnessed/verified by supplier's TPI.
- Following to be noted for packing:
 - Material shall be packed suitably in order to avoid damage during transit and also during storage at site in tropical climate conditions for a period of 15-18 months.
 - Photographs of the packing (with LR No.) as per approved packing procedure (if applicable) just before dispatch.
- BHEL reserves the right for conducting repeat test, if required.
- 'K' Value test will be carried out on samples identified and sealed by BHEL Inspector once in twelve (12) months irrespective of ongoing projects. The tests will be carried out at govt. approved labs (at CBRI - Roorkee, IIT - Chennai or PIBCO R & D Centre, N. Delhi, NIRMA University, Ahmedabad). 'K' Value test will be carried out for at least three mean temperatures i.e. 100 OC, 200 OC & 300 OC for each density.
- Thermal conductivity type test reports shall be submitted to BHEL Engineering for review and approval.
- Type tests (except thermal conductivity) shall be done once in 3 months in the presence of BHEL/BHEL AIA.
- The latest revisions/year of issue of all the IS indicated in the QP shall be referred.
- Project specific QP will be prepared by Indenting unit based on customer requirement.


LEGENDS:

*D: Records, identified with "Tick" (✓) shall be essentially included by supplier in QA Documentation.
 ** M: Supplier/ Manufacturer/ Sub-Supplier
 P: Perform
 MA: Major Characteristic
 IR: Inspection Report
 N: Customer
 V: Verification
 CR: Critical Characteristic

BHEL				BIDDER/ SUPPLIER				FOR CUSTOMER REVIEW & APPROVAL			
ENGINEERING		QUALITY		Sign & Date		Sign & Date		Doc No:			
Prepared by:	Sign & Date	Name	Checked by:	Sign & Date	Name	Seal	Reviewed by:	Sign & Date	Name	Seal	
Reviewed by:		S B Verma	Reviewed by:		K K Yadav		Approved by:				
		Kuldeep Kumar			R K Jaiswal						

STANDARD TECHNICAL DATA SHEET FOR LIGHT RESIN BONDED MINERAL (ROCK) WOOL MATTRESSES			
PROJECT:FRAMEWORK AGREEMENT FOR 1X660MW PANKI TPP			
QP NO:PE-QP-020-169-M032			
SPECIFICATION NO: PE-TS-020-169-M032			
SL. No.	CHARACTERISTICS	ACCEPTANCE/PERMISSIBLE LIMIT	
1	MATERIAL	LRB Rock wool mattresses confirming to IS:8183/Latest.	
2	Bulk Density	100 Kg/m ³ & 150 Kg/m ³ with (+)1.5% & (-)5% tolerance.	
3	Mattresses Size	1640mm x 1220mm/1520mm x 1220mm	
4	Thickness	25,40,50,60,75mm (Thickness values as per BOM) Tolerance on thickness shall be +6mm/-	
5	Service Temperature	Upto 400 °C - 100 Kg/m ³ Above 400 °C - 150 Kg/m ³	
6	Thermal Conductivity as per IS 8183/93 (Group 3/Group 4)	Mean Temp.	100 Kg/m ³ (Group 3) K value in mW/cm. °C (Max)
		100 °C	0.52
		200 °C	0.73
		300 °C	0.93
7	Chloride content	0.01 % max.	
8	Shot content	Shot shall not exceed 5% maximum by weight.	
		Shot shall not be greater than 5mm in any dimension.	
9	Sulphur content	0.6% max	
10	Moisture Content (Weight gain by moisture absorption)	2 % max	
11	Incombustibility Test (loss of weight after test)	5% max	
12	Resistance to vibration	1 % max	
13	Resistance to jolting	3 % max	
14	Alkalinity	7-10 pH	
15	Recovery After Compression	90% minimum after compression to 75% of the original Thickness.	
16	Fibre Diameter	7.0 Micron max.	
17	SS wire netting (above 400 deg.C)	As per IS:6528 & 3150, Aperture 13mm & Wire Dia 0.56mm.(Wire Dia and single side/ Both sides wire netting as per BOM).	
18	SS Tying/Stitching wire (above 400 deg.C)	Wire Dia 0.40mm As per IS:6528.	
19	GI wire netting (upto 400 deg.C)	As per IS:280 & 3150, Aperture 13mm & Dia 0.56mm.(Wire Dia and single side/ Both sides wire netting as per BOM).	
20	GI Tying/Stitching wire (upto 400 deg.C)	Wire dia 0.40mm As per IS:280.	
21	Packing, Marking & other requirement	Stack of mattresses shall be packed in unfolded condition and sealed in polythene bags of at least 0.2mm thickness. Then the sealed bags shall be put inside the polythene lined HDPE or HDPP Woven netting bags and sealed by machine stitching. Packing to be duly marked with a caution note "Always store under covered shed and on raised platforms". For marking and other details Technical specification is to be referred.	
BIDDER/SUPPLIER		BHEL	

97306/2020/PS-PEM-MPL

	COMPLIANCE SHEET BONDED MINERAL (ROCK) WOOL MATTRESSES FRAMEWORK AGREEMENT FOR 1X660MW PANKI TPP		SPECIFICATION NO. PE-TS-020-100-M003	
			SECTION : II	
	REV. NO.: 00		DATE: 12.10.2020	
	Sheet 1 of 1			

I hereby comply/not comply (*) to all the requirements of this technical specification in totality.

* In case the bidder does not comply to the technical specification, the deviations shall be explicitly listed in the technical deviation sheet of GCC. Deviations listed in technical deviation sheet shall only be considered.

Name of Bidder / Authorized Representative :-

Designation :-

Signature :-

Company Seal :-

Date :-

PARTICULARS OF BIDDER / AUTHORISED REPRESENTATIVE					
NAME	DESIGNATION	SIGNATURE	DATE	COMPANY SEAL	